

YT180

Owner's Manual



SAFETY RULES

Safe Operation Practices for Ride-On Mowers



IMPORTANT: THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

II. SLOPE OPERATION

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

DO:

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

DO NOT:

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

III. CHILDREN

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

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

IV. SERVICE

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



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



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

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

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

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SERIAL NUMBER	
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	AND SERIAL NUMBERS WILL BE FOUND E UNDER THE SEAT.
DATE OF PU	DRECORD BOTH SERIAL NUMBER AND RCHASE AND KEEP IN A SAFE PLACE EREFERENCE.

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 manual.

PRODUCT SPECIFICATIONS

1 10/11/011/0
18.0
3.5 GALLONS UNLEADED REGULAR
SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
CHAMPION RV17YC
INTAKE: .003006 IN. EXHAUST: .013016 IN.
FORWARD: 1st 1.1 2nd 1.5 3rd 2.3 4th 3.5 5th 4.4 6th 5.7 REVERSE: 1.8
FRONT: 14 PSI REAR: 12 PSI
15 AMPS @ 3600 RPM
30-35 FT. LBS.

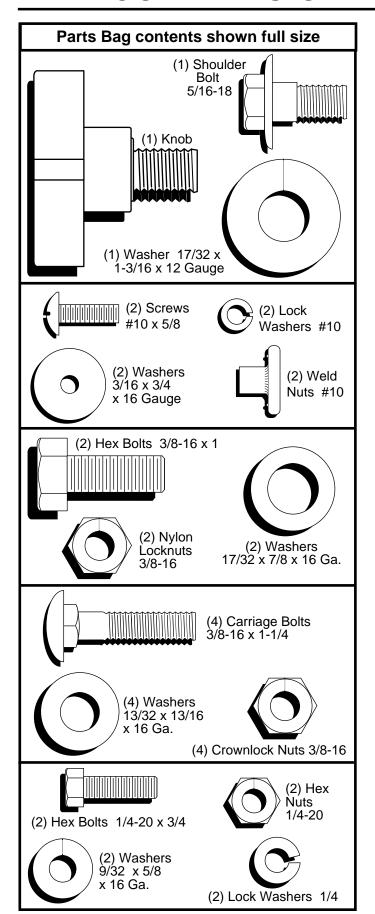
WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester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

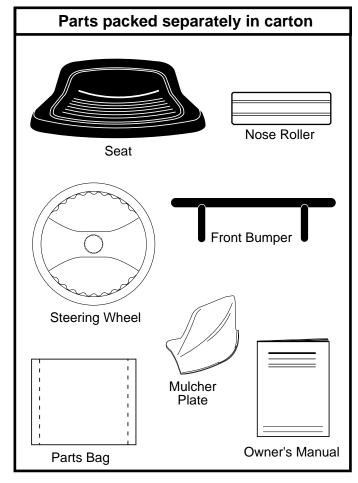
In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest authorized service center (See the REPAIR PARTS section of this manual).

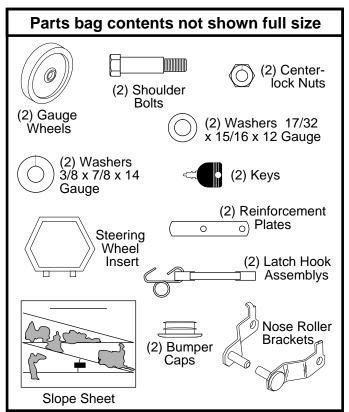
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CONTENTS OF HARDWARE PACK







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

TOOLS REQUIRED FOR ASSEMBLY

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

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

(2) 7/16" wrenches Phillips Screwdriver

(1) 1/2" wrench Utility knife

(2) 9/16" wrenches Tire pressure gauge

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

TO REMOVE TRACTOR FROM CARTON UNPACK CARTON

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

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

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

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

TO ROLL TRACTOR OFF SKID (See Fig. 9)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in neutral (N) position.
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

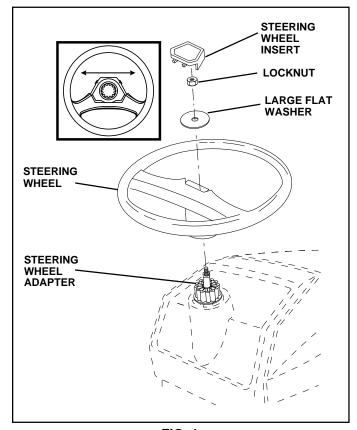


FIG. 1

CONNECT BATTERY (See Fig. 2)



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

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

- Lift hood to raised position.
- Open terminal access doors, remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Close terminal access doors.

Use terminal access doors for:

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

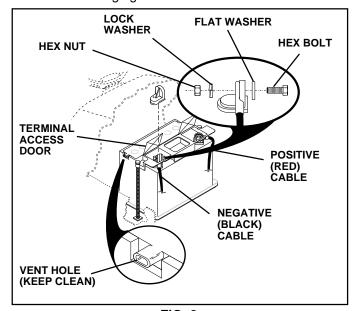


FIG. 2

INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

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

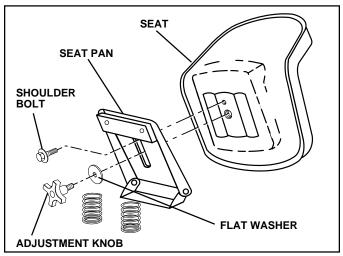


FIG. 3

CHECK TIRE PRESSURE

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

• Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

CHECK DECK LEVELNESS

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

CHECK FOR PROPER POSITION OF ALL BELTS

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

CHECK BRAKE SYSTEM

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

TO ATTACH FRONT BUMPER (See Fig. 4)

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

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

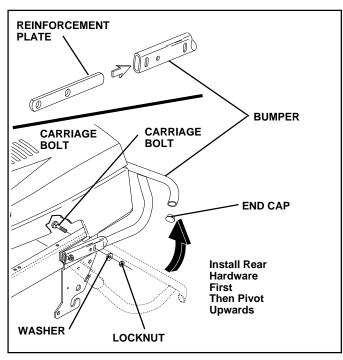


FIG. 4

TO ATTACH NOSE ROLLER (See Fig. 5)

- Position brackets, 17/32 x 7/8 x 16 gauge washers, and nose roller between deck mounting brackets as shown.
 Be sure to position brackets on correct side, as shown.
- Install 3/8-16 x 1 hex bolts and 3/8-16 crownlock nuts as shown. Tighten hardware securely.

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

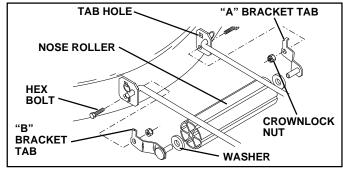


FIG. 5

ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 6)

Assemble gauge wheels with tractor on a flat level surface.

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

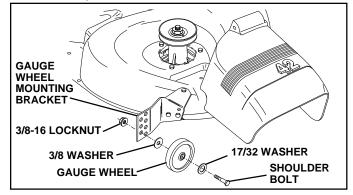


FIG. 6

INSTALL MULCHER PLATE (See Figs. 7 & 8)

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

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

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

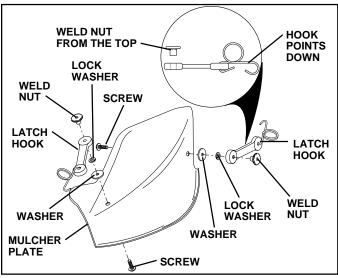


FIG. 7

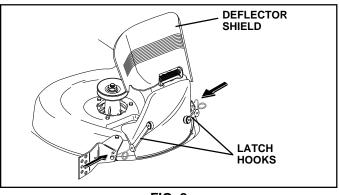


FIG. 8



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

TO CONVERT TO BAGGING OR DISCHARGING

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

✓ CHECKLIST

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

- Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls their location and function. Operate them before you start the engine.
- ✓ Be sure brake system is in safe operating condition.

KNOW YOUR TRACTOR

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

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

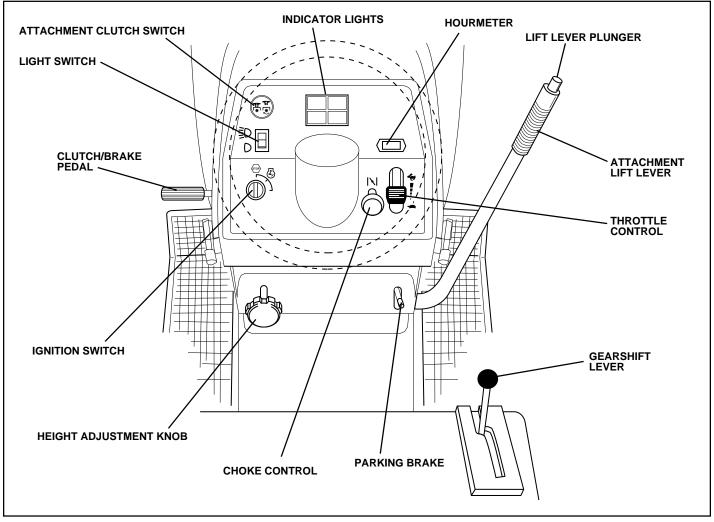


FIG. 9

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

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

THROTTLE CONTROL: Used for starting and controlling engine speed.

CHOKE CONTROL: Used when starting a cold engine.

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

HEIGHT ADJUSTMENT KNOB: Used to adjust the mower height.

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

GEARSHIFT 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.

HOURMETER: Indicates hours of operation.

LIGHT SWITCH: Turns the headlights on and off.

CLUTCH/BRAKE PEDAL: Used for declutching and braking the tractor and starting 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 for over the spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR

TO SET PARKING BRAKE (See Fig. 10)

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

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

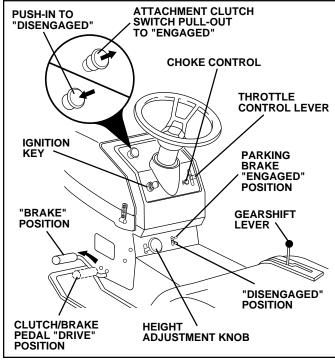


FIG. 10

STOPPING (See Fig. 10)

MOWER BLADES -

Move attachment clutch switch to "DISENGAGED" position.

GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

ENGINE -

Move throttle control to slow (-) position.

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

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

NOTE: Under certain conditions when 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. 10)

Always operate engine at full throttle.

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

TO USE CHOKE CONTROL (See Fig. 10)

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

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

TO MOVE FORWARD AND BACKWARD (See Fig. 10)

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

- Start tractor with clutch/brake pedal depressed and gearshift lever in neutral (N) position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement.

IMPORTANT: BRING TRACTOR TO A COMPLETE STOP BEFORE SHIFTING OR CHANGING GEARS. FAILURE TO DO SO WILL SHORTEN THE USEFUL LIFE OF YOUR TRANSAXLE.

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 10)

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

- Turn knob clockwise (
 ¬) to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

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

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

TO OPERATE MOWER (See Fig. 11)

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

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



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

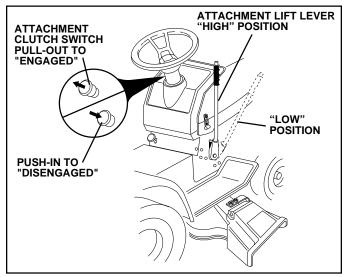


FIG. 11

TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear and be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

TO TRANSPORT

- Raise attachment lift control to highest position.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH.

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

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL (See Fig. 16)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and push it all the way down into the tube, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

ADD GASOLINE

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

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

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

INDICATOR LIGHTS

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



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



 Indicates you must disengage attachment clutch control to start tractor.



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



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

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

TO START ENGINE (See Fig. 10)

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

- Depress clutch/brake pedal and set parking brake.
- Place gearshift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (|\mathbb{\capacital}|) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (4) and slow (4) positions.

- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (
 position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (4) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

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.

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. 12).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

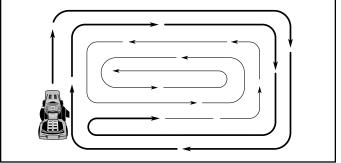


FIG. 12

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE		EFORE F	EACH I	SE HOURS	HOURS VERY?	SHOUR'S	S HOUR O HOUR VERY	S HOUR OD HOUR OU FRY SE	S ASON FORE	SER	^{GE} VICE	E DAT	ΓES
	Check Brake Operation	/		/										
	Check Tire Pressure	/		/										
Ţ	Check for Loose Fasteners	/					1 7		/					
R A	Sharpen/Replace Mower Blades				✓ 4									
C	Lubrication Chart				/				/					
ΙŤ	Check Battery Level/Recharge				1 6									
0	Clean Battery and Terminals				/				/					
R	Check Transaxle Cooling				/									
	Adjust Blade Belt(s) Tension						✓ ₅							
	Adjust Motion Drive Belt(s) Tension						√ ₅							
	Check Engine Oil Level	1		/										
	Change Engine Oil		/		1,2,3				/					
Ŀ	Clean Air Filter				1 /2									
E N	Clean Air Screen				√ 2									
G	Inspect Muffler/Spark Arrester					1								
	Replace Oil Filter (If equipped)						1 1,2							
N E	Clean Engine Cooling Fins						1 2							
l	Replace Spark Plug						/	/						
	Replace Air Filter Paper Cartridge						1 /2							
	Replace Fuel Filter							/						

- $\ensuremath{\mathsf{1}}$ Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours.
- 4 Replace blades more often when mowing in sandy soil.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

GENERAL RECOMMENDATIONS

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

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

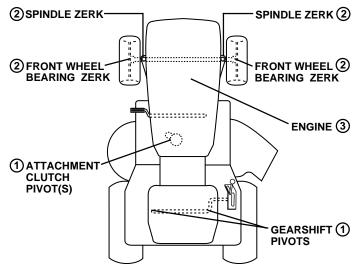
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

BEFORE EACH USE

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

LUBRICATION CHART



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

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

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

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

TIRES

- Maintain proper air pressure in all tires (See "PROD-UCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

BLADE CARE

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

BLADE REMOVAL (See Fig. 13)

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

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

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

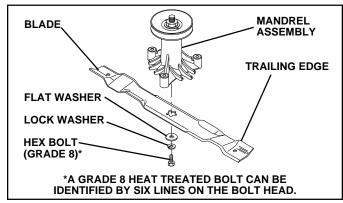


FIG. 13

TO SHARPEN BLADE (See Fig. 14)

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

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

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

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

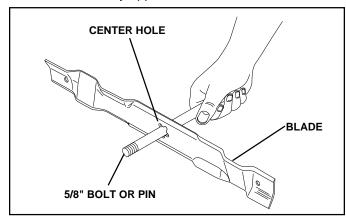


FIG. 14

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 (See "CONNECT BAT-TERY" in the Assembly section of this manual).
- Recharge at 6-10 amperes for 1 hour.

TO CLEAN BATTERY AND TERMINALS

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

- · Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "CONNECT BATTERY" in the Assembly section of this manual).

V-BELTS

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

TRANSAXLE COOLING

Keep transaxle free from build-up of dirt and chaff which can restrict cooling.

ENGINE

LUBRICATION

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

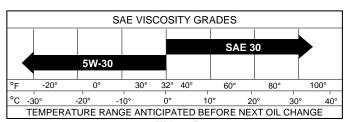


FIG. 15

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

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

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

TO CHANGE ENGINE OIL (See Fig. 15 and 16)

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

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick is in all the way for accurate reading. Keep oil at "FULL" line on dipstick.

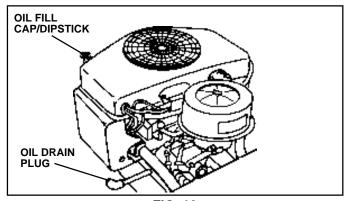


FIG. 16

CLEAN AIR SCREEN (See Fig. 17)

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

ENGINE COOLING FINS (See Fig. 17)

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

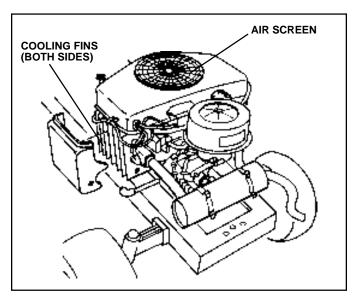


FIG. 17

AIR FILTER (See Fig. 18)

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

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

TO SERVICE PRE-CLEANER

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

TO SERVICE CARTRIDGE

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

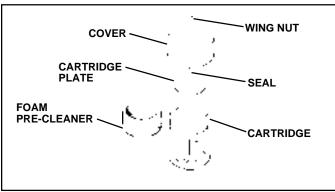


FIG. 18

ENGINE OIL FILTER

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

MUFFLER

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

SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever comes first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

IN-LINE FUEL FILTER (See Fig. 19)

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

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

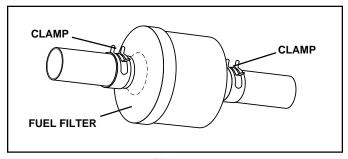


FIG. 19

CLEANING

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

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

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

CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

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

TRACTOR

TO REMOVE MOWER (See Fig. 20)

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

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

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

TO INSTALL MOWER (See Fig. 20)

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

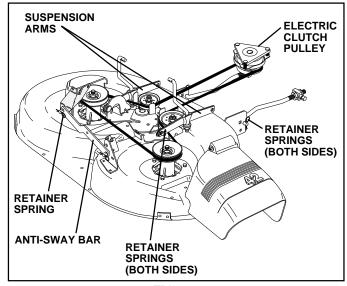


FIG. 20

TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 21 and 22)

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

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

Recheck measurements after adjusting.

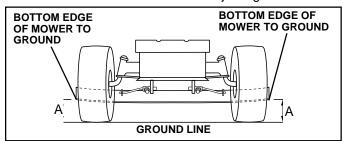


FIG. 21

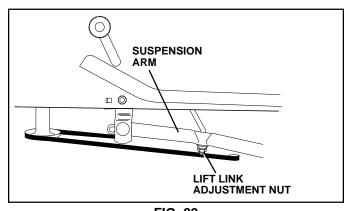


FIG. 22

FRONT-TO-BACK ADJUSTMENT (See Figs. 23 and 24)

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-

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

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

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

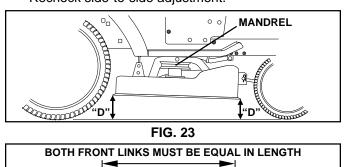
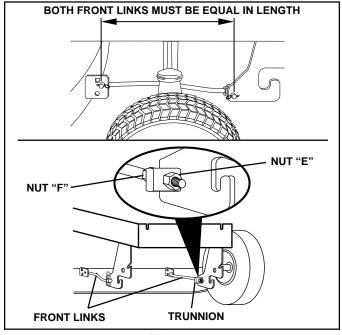


FIG. 23



19 FIG. 24

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 25)

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

BELT REMOVAL -

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

BELT INSTALLATION -

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

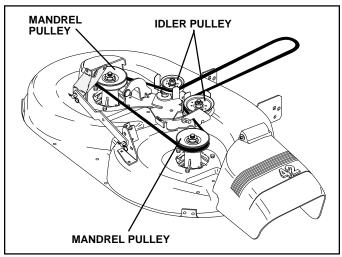


FIG. 25

TO ADJUST BRAKE (See Fig. 26)

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

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

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2" loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center.

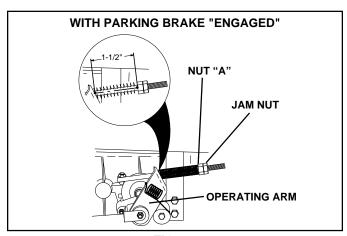


FIG. 26

TO REPLACE MOTION DRIVE BELT (See Fig. 27)

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

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

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

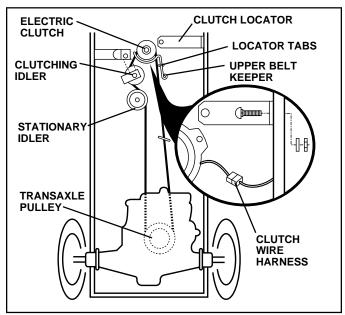


FIG. 27

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. 28)

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

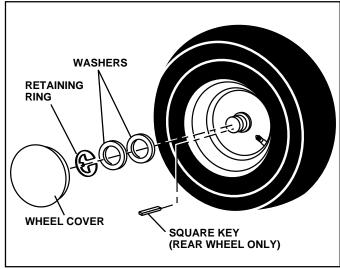


FIG. 28

TO START ENGINE WITH A WEAK BATTERY (See Fig. 29)



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

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

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

TO ATTACH JUMPER CABLES -

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

TO REMOVE CABLES, REVERSE ORDER -

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

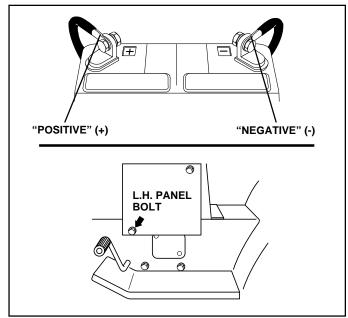


FIG. 29

TO REPLACE FUSE

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

TO REPLACE HEADLIGHT BULB

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

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 30)

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

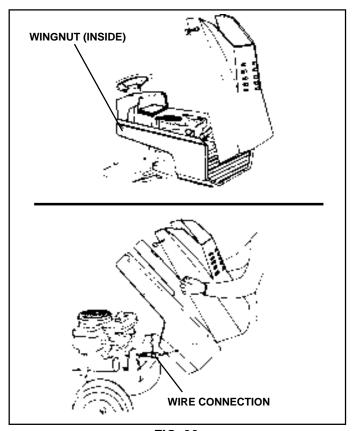


FIG. 30

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 31& 32)

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

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

TO ADJUST CARBURETOR (See Fig. 33)

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

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

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

PRELIMINARY SETTING -

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

FINAL SETTING -

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

ACCELERATION TEST -

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

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

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

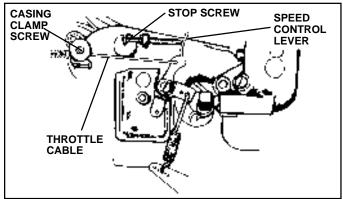


FIG. 31

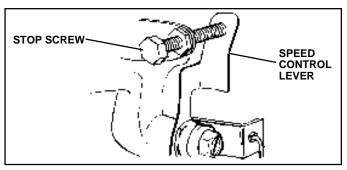


FIG. 32

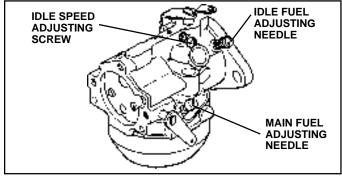


FIG. 33

STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



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

TRACTOR

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

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

BATTERY

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

ENGINE

FUEL SYSTEM

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

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

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

ENGINE OIL

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

CYLINDERS

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

OTHER

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

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

TROUBLESHOOTING POINTS

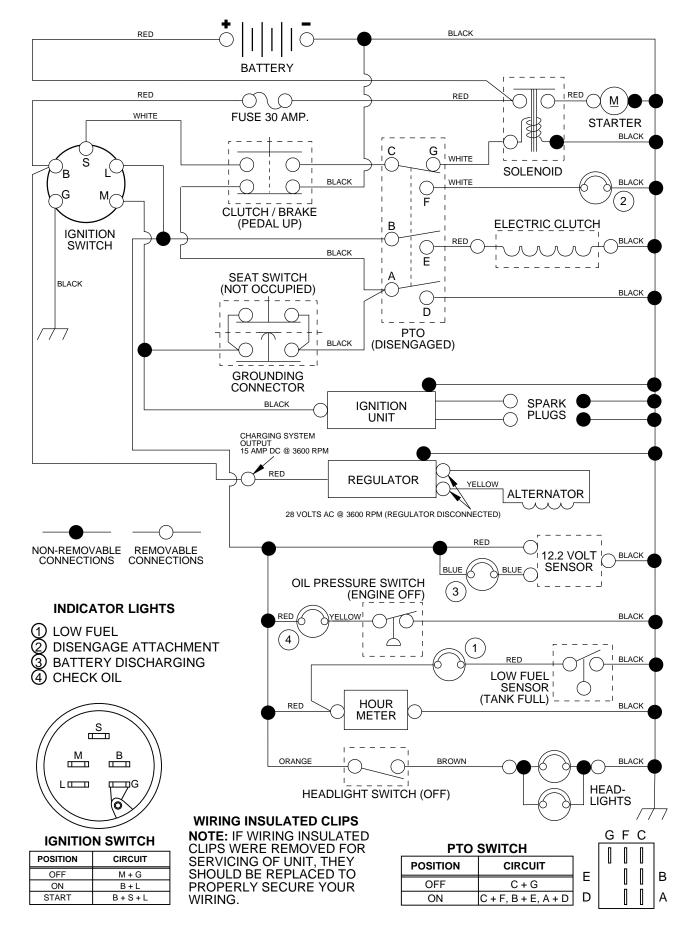
PROBLEM	CAUSE	CORRECTION		
Will not start	 Out of fuel. Engine not "CHOKED" properly. Engine flooded. Bad spark plug. Dirty air filter. Dirty fuel filter. Water in fuel. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Fill fuel tank. See "TO START ENGINE" in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

TROUBLESHOOTING POINTS

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

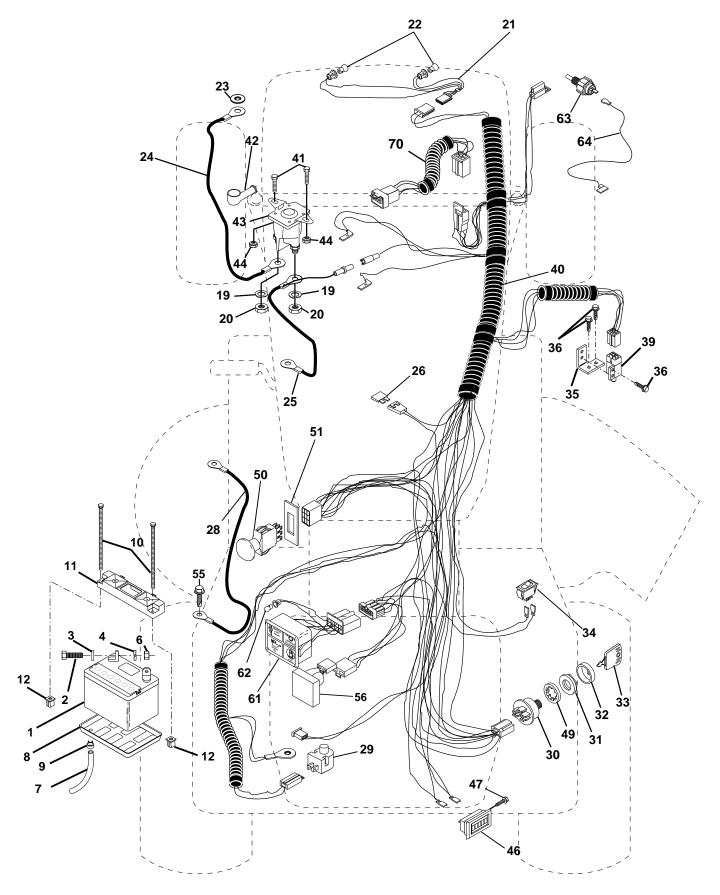
TRACTOR - - MODEL NUMBER YT180 (954001082B)

SCHEMATIC



TRACTOR - - MODEL NUMBER YT180 (954001082B)

ELECTRICAL



TRACTOR - - MODEL NUMBER YT180 (954001082B)

ELECTRICAL

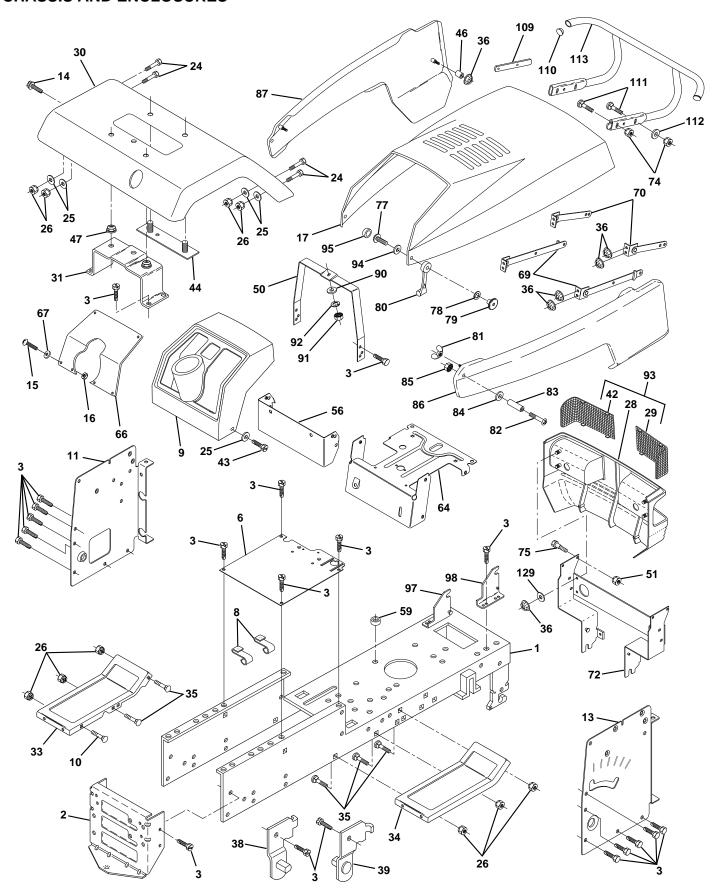
KEY PART NO. NO.	DESCRIPTION
1 532144926 2 874760412 3 819091016 4 810040400 5 532121264 6 873220400 7 532007697 8 532124886 9 532109596 10 532145211 11 532145209 12 532145769 19 810090400 20 873350400 21 532136850 22 532004152 24 532124780 25 532146148 26 532108824 28 532145491 29 532121305 30 532144921 31 532140400 32 532141226 33 532140401 34 532110712 35 532108236 36 817021008 39 532109553 40 532146061 41 871110412 42 532131563 43 532145673 44 873510400 46 532110940 47 817011008 49 811151000 50 532140404 51 532140405 55 817490508 56 532127385 61 532126519 62 532110143 63 532142320 64 532142047	Battery Bolt, Hex Head 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Gauge Washer, Lock 1/4 Caps, Battery Nut, Hex 1/4-20 Tube, Tray, Battery Tray, Battery Clamp, Hose Bolt Battery Frt 1/4-20 x 3/4 Zinc Holddown Battery Dash Mount Push Nut Nylon 1/4" Battery Fnt. Washer, Lock 1/4 Nut, Hex, Jam 1/4-20 Harness, Socket, Light (Includes Key #11) Bulb, Light Cable Starter 6 Ga. 11" Red Cable 6 Ga. Red 22' W/16 Wire Fuse Cable, Ground 21" Black 6 Ga. Switch, Plunger Switch, Ignition Nut, Ignition Bezel, Ignition Key, Molded Switch, Light Bracket Switch Interlock Screw, Hex Tap #10-24 UNC Switch, Intlk 4 Term Harness, Ignition Bolt, Hex 1/4-20 x 3/4 Cover, Terminal Solenoid Nut, Hex, Keps 1/4-20 Meter, Hour Screw #10-24 x 1/2 Washer Lock Internal Tooth 5/8 Switch, P.T.O. Ring, Retainer PTO Screw Thdrol 5/16-18 x 1/2 Sensor, Low Voltage Package, Light Bulb Dashboard Light 27 amp. Switch Engine Oil Pressure Wire Lead Sentry Vanguard Harness Eng. Koh. Tw 16 AR O Pump
47 817011008 49 811151000 50 532140404 51 532140405 55 817490508 56 532127385 61 532126519 62 532110143 63 532142320 64 532144222	Screw #10-24 x 1/2 Washer Lock Internal Tooth 5/8 Switch, P.T.O. Ring, Retainer PTO Screw Thdrol 5/16-18 x 1/2 Sensor, Low Voltage Package, Light Bulb Dashboard Light 27 amp. Switch Engine Oil Pressure Wire Lead Sentry Vanguard

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

1 inch = 25.4 mm

TRACTOR - - MODEL NUMBER YT180 (954001082B)

CHASSIS AND ENCLOSURES



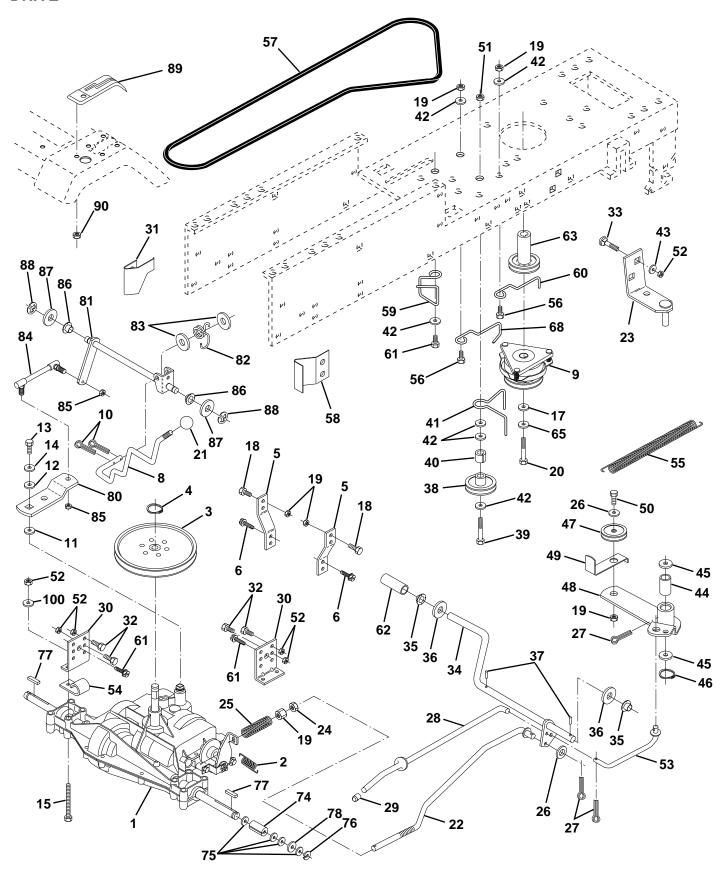
TRACTOR - - MODEL NUMBER YT180 (954001082B)

CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532145501	Chassis WLDMT 11 Ga.	70	532104618	Strap Assembly, Hinge, Front
2	532140356	Drawbar	72	532124574	Support Assembly, Grille
3	817490612	Screw, Thd., Roll. 3/8-16 x 3/4	74	873680600	Nut Crownlock 3/8-16 UNC
6	532145206	Saddle	75	532123481	Bolt, Shoulder 1/4-20 UNC
8	532126471	Clip Insulator	77	874191008	Screw, Machine, Cross Pan Head
9	532140452	Dashboard			#10-24 x 1/2
10	872140608	Bolt, Carriage 3/8-16 UNC x 1	78	810071000	Washer, Lock #10
11	532145218	Dash Panel, LH	79	532125004	Nut, Weld
13	532145217	Dash Panel, RH	80	532109808	Latch, Chute
14	817490608	Screw Thdrol. 3/8-16 x 1/2	81	532123198	Nut Plastic Locking Wing 1/4-20
15	874180512	Screw, Machine 5/16-18 UNC x 3/4	82	874981020	Screw, Machine, Cross Pan Head
16	873510500	Nut, Hex, Keps 5/16-18 UNC	00	500007000	#10-24 x 1-1/4
17	532125454	Hood	83	532007206	Spacer, Split #10 x 3/4
24	874780616	Bolt, Hex, Fin. 3/8-16 UNC x 1	84	819070818	Washer 7/32 x 1/2 x 18 Gauge
25	819131312	Washer 13/32 x 13/16 x 12 Gauge	85	873731000	Nut, Hex, Keps #10-24 UNC
26 28	873800600 532127325	Nut Lock Hex W/Ins. 3/8-16 UNC Grille	86 87	532143365 532143364	Side Panel, RH
20 29	532124251		90	819091216	Side Panel, LH
30	532141449	Lens, Headlight, RH, Smoked Fender	90 91	873220400	Washer 9/32 x 3/4 x 16 Gauge Nut, Hex, Fin. 1/4-20 UNC
31	532137113	Bracket Fender	92	810040400	Washer, Lock, Hvy Helical 1/4
33	532147203	Footrest, LH	93	532127320	Grill Assembly
34	532147202	Footrest, RH	94	532110357	Washer, Cap
35	872110606	Bolt, Carriage 3/8-16 x 3/4	95	532110356	Cap, Black
36	532108067	Nut Pal	97	532110853	Pivot Bracket Assembly, LH
38	532139886	Pivot Bracket Assembly, Rear, LH	98	532110852	Pivot Bracket Assembly, RH
39	532139887	Pivot Bracket Assembly, Rear, RH		532141461	Bracket Extension Bumper
42	532124250	Lens, Headlight, LH, Smoked		532143679	Plug Plastic
46	532127316	Retainer		872140610	Bolt, Carriage 3/8-16 x 1-1/4
50	532145205	Support, Dash		819131316	Washer 13/32 x 13/16 x 16 Ga.
51	873800400	Nut Lock w/Ins. 1/4-20 UNC		532141460	Bumper Asm
56	532145151	Dash Extension	129	819091016	Washer 9/32 x 5/8 x 16 Ga.
59	532110436	Bushing Snap Split	_	532121794	Cover Access
64	532145095	Dash, Lower	_	532125085	Plug Dash
66	532141626	Plate, Dash	NOT		nent dimensions given in U.S. inches
67	819111116	Washer 11/32 x 11/16 x 16 Gauge	1401	1 inch = 25	
69	532106784	Strap Assembly, Hinge, Rear		1 111011 – 20	2. 1 111111

TRACTOR - - MODEL NUMBER YT180 (954001082B)

DRIVE



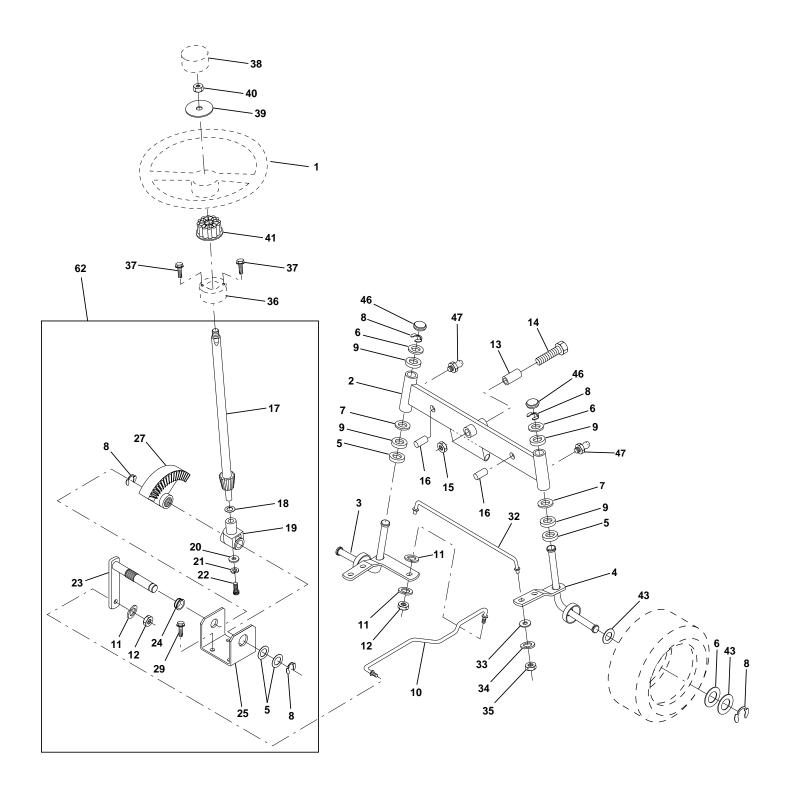
TRACTOR - - MODEL NUMBER YT180 (954001082B)

DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1	532145605	Transaxle 6sp Dana LT Model #	44	532105706	Bearing Nyl 503 X 628 X 1 25
•	5004.40000	4360-96	45	532110812	Washer Hardened
2 3	532146682 532123666	Spring Return Brake Pulley Transaxle 20"tires	46 47	812000039 532127783	Ring Klip #t5304-50 Pulley Idler V Groove Plastic
4	812000028	Ring Retainer # 5100-62	48	532123789	Bellcrank Asm Clutch
5	532121520	Strap Torque 30 Degrees	49	532123205	Retainer Belt Style Spring
6	817490512	Screw Thdrol 5/16-18 X 3/4 TYT	50	874760624	Bolt Hex Hd 3/8-16unc X 1-1/2
8	532141002	Rod Shifter	51	873680600	Nut Crownlock 3/8-16 Unc
9 10	532137140	Clutch Electric	52 53	873680500 532105710	Nut Crownlock 5/16 - 18 Link Clutch 7 66
11	876020416 532105701	Pin Cotter 1/8 X 1 Cad Washer Plate Shf 388 Sq Hole		532124996	Clip Fuel Line 13/32 Mtg. Hole
12	819151216	Washer 15/32 X 3/4 X 16 Ga	55	532105709	Spring Return Clutch 6 75
13	874550412	Bolt 1/4-28 unf Gr 8 w/Patch	56	874760620	Bolt Fin Hex 3/8-16unc X 1-1/4
14	810040400	Washer Lock Hvy Helical 1/4	57		V-Belt Ground Drive 95 25 42"
15	874780544	Bolt Fin Hex 5/16-18uncx 2 3/4	58	532127274	Keeper Belt RH LT Pnt/zinc 16g
17 18	532126197 874780616	Washer 1-1/2 OD X 15/32 ID X .250 Bolt Fin Hex 3/8-16unc X 1 Gr. 5	59 60	532140312 532121218	Keeper Belt Chassis Span Ctr Keeper Belt Engine LH LT
19	873800600	Nut Lock 3/8-16 Unc	61	817490612	Screw Thdrol 3/8-16x3/4 Ty-tt
20	871170768	Bolt, Hex 7/16-20 x 4-1/4		532123533	Cover Pedal Premuim
21	532121274	Knob Duckhead 3/8-16unc Blk	63	532140189	Engine Pulley LT/YT
22	532130804	Rod Brake Blk Zinc 27 326	65	810040700	Washer Lock Hvy Hlcl Spr 7/16
23	532137141	Bracket Asm. Clutch	68	532105730	Keeper Belt Engine BZP Zinc
24 25	873350600 532106888	Nut Hex Jam 3/8-16 Unc Spring Rod Brake 2 00 Zinc	74 75	532109502 532121749	Spacer Split Washer 25/32 X 1 1/4 X 16 Ga
26	819131316	Washer 13/32 X 13/16 X 16 Ga		812000001	E-ring #5133-75
27 27	876020412	Pin Cotter 1/8 X 3/4 Cad	77	532123583	Key Square 2 0 X 1845/ 1865
28	532145204	Rod Brake Parking	78	532121748	Washer 25/32 X 1-5/8 X 16 Ga
29	532071673	Cap Brake Parking Black	80	532131487	Arm Shift Transaxle
30	532130807	Bracket Mtg Transaxle	81 82	532136933	Shaft Asm Cross 20"t 42"deck
31 32	532127275 874760512	Keeper Belt LH LT 14 Ga Bolt Hex Hd 5/16-18unc X 3/4	o∠ 83	532123782 819171216	Spring Torsion T/a Washer 17/32 X 3/4 X 16 Ga
33	872140506	Bolt, Carriage 5/16-18 x 3/4	84	532132183	Rod Tie Shift Adj Ball
34	532149001	Shaft Asm Pedal Foot	85	873530400	Nut Nylock 1/4-28
35	532120183	Bearing Nylon Blk 629 Id	86	532071208	Bushing Rod Strg 629/632 Id
36	819211616	Washer 21/32 X 1 X 16 Ga	87	819212016	Washer 21/32 X 1-1/4 X 16 Ga
37 38	532124963 532123674	Pin Roll 3/16 X 1"	88 89	812000008 532139991	Ring Klip #5304-62
39	874760644	Pulley Idler Flat Bolt Fin Hex 3/8-16unc X 2-3/4	90	532124346	Console Shift 6sp W/ign LT Nut Self-thd wsh-hd 1/4 zinc
40	532124965	Spacer Split 395 X 59 Bzp	100		Washer 11/32 x 3/4 x 16 Ga.
41	532109070	Keeper Belt Retainer			
42	819131312	Washer 13/32 X 13/16 X 12 Ga	NOT		nent dimensions given in U.S. inches
43	819111012	Washer 11/32 x 5/8 x 12 Ga.		1 inch = 25). 4

TRACTOR - - MODEL NUMBER YT180 (954001082B)

STEERING ASSEMBLY



TRACTOR - - MODEL NUMBER YT180 (954001082B)

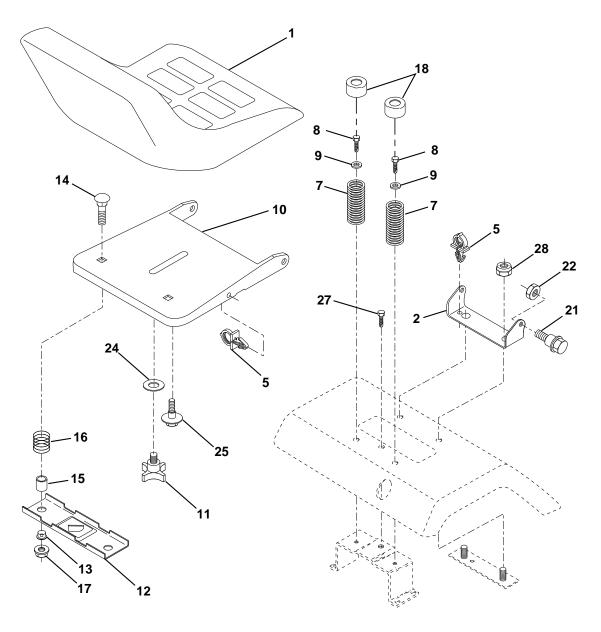
STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 2 13 14 5 16 7 18 9 10 11 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	532124415 532142033 532135227 532135228 532124931 532121748 819272016 812000029 532124937 532130468 810040600 873610600 532110438 874011056 873901000 532132624 532128762 532057079 532124035 532124036 532127501 532127501 532127501 532127501 532127501 532124036 532130467 819111216 810040500 873810500 532145207 817431008 532124416 532100712 873940800 532121749 532121749 532121749 532121749 532121749 532121749 532121749	Wheel Steering Auto Grey Axle Asm Fr LT W/gzks 38/42 Spindle Asm LH Spindle Asm RH Bearing Race Thrust Harden Washer 25/32 X 1-5/8 X 16 Ga Washer 27/32 X 1-1/4 X 16 Ga Ring Klip #t5304-75 Bearing Col Strg Blk Link Drag Sol Ball Jt 20 064 Washer Lock Hvy Hlcl Spr 3/8 Nut Fin Hex 3/8-24 Unf Spacer Bearing Axle Front Bolt Hex 5/8-11 Unc X 3-1/2 Nut Lock Flange 5/8-11 Unc Pin Axle 5/8 X 1 55/1 54 Lg Shaft Asm Strg 20 31 x 3/4 YP YT Washer Thrust 515x 750x 033 Support Shaft Washer Shim 1/4 X 5/8 X 062 Washer Lock Hvy Helical 1/4 Screw Hex Socket 1/4-20 X 5/8 Shaft Asm Pittman Nyliner Snap In Bracket Steering Gear Sector Screw Thdrol 3/8-16x3/4 Ty-tt Rod Tie Wire Form 19 75 Elec Washer, Lock Hvy Hlcl Spr 5/16 Locknut 5/16-24 Unf Bushing Strg Angle 3/4" Screw Slftp #10-16 X 1/2 Ty-b Insert Cap Strg Wh Aut Hus Gry Washer 53 X 2 25 X 160 Zinc Nut Hex Jam Toplock 1/2-20 Unf Adapter Wheel Strg 758/ 753id Washer 25/32 X 1 1/4 X 16 Ga Cap Spindle Fr Top Blk Fitting Grease

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

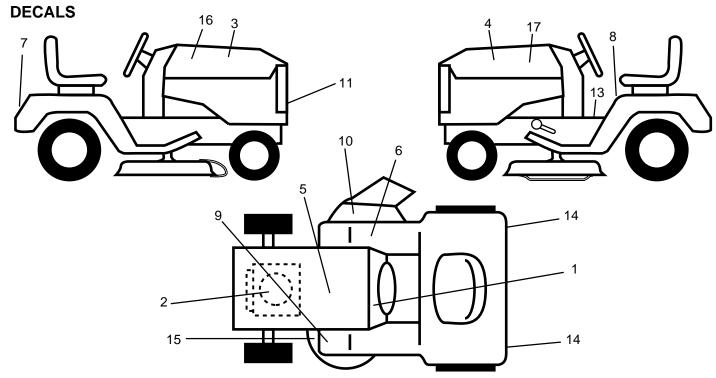
TRACTOR - - MODEL NUMBER YT180 (954001082B)

SEAT ASSEMBLY



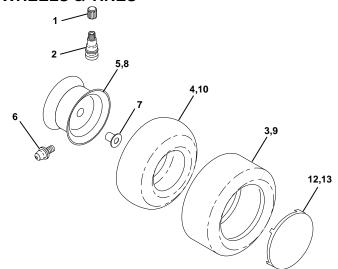
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 5 7 8 9 10 11 12 13 14	532124186 532140551 532145006 532124181 817490508 819131614 532140552 532120068 532121246 532121248 872050411	Seat V-550 Gry/blk Std Bracket Pivot Seat 8 720 Clip Push-in Hinged Spring Seat Cprsn 2 250 Blk Zi Screw Hwsh Thdrol 5/16-18 x 1/2 Washer 13/32 X 1 X 14 Ga Pan Seat Knob Seat 1/2-13unc Blk Bracket Mounting Switch Bushing Snap Blk Nyl 50 Id Bolt Rdhd Sht Nk 1/4-20x1-3/8	16 17 18 21 22 24 25 27 28		Spring Cprsn 1 310 Blk Pnt Nut Lock 1/4 Lge Flg Gr 5 Zinc Cap Spring Seat Bolt Shoulder 5/16-18 Unc Blkz Nut Crown Lock 5/16-18 Washer 17/32 X 1-3/16 X 12 Ga Bolt Shoulder 5/16-18 X 62 Screw Thdrol 3/8 - 16 x 1/2 Ty-TT Nut Crownlock 3/8-16 Unc nent dimensions given in U.S. inches
15	532121249	Spacer Split 28x 88 Yel Zinc		1 inch = 25	5.4 mm

TRACTOR - - MODEL NUMBER YT180 (954001082B)



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 7 8 9 10 11 13	532138956 532132507 532140728 532140729 532145005 532131582 532133795 532101892 532137259 532125989 532140837	Decal Instruction Dash Eng/fr Decal HP Engine Decal Hood RH Husq Decal Hood LH Husq Decal Bat Dan/Poi P/L Symbols Decal Fender Husqvarna Decal Caution Fender Eng/fr Decal Clutch/brake Eng/fr Decal Warning MULT-LANGUAGE Decal Grille Husqvarna Decal Brake Parking Saddle	-	MK420 LSB42	Decal V-Belt Mower Multi-Lang. Decal Insert Hood Rh YT180 6 sp. Decal Insert Hood Lh YT180 6sp. Fastner Pop In Footrest Pad Footrest Rbr. Sq. Generic 95 Decal Lift Handle(Lift Handle) Manual Owners, English Manual Owners, French es not included with tractor: Mulching Kit Snow Blower
14	532106202	Reflector Tail Light Red/amber	- - -	LC05 C42 LBD48 LC06	33 lb. wheel weights (Pair) Grass Catcher for 42" Snow Blade Tire Chains

WHEELS & TIRES

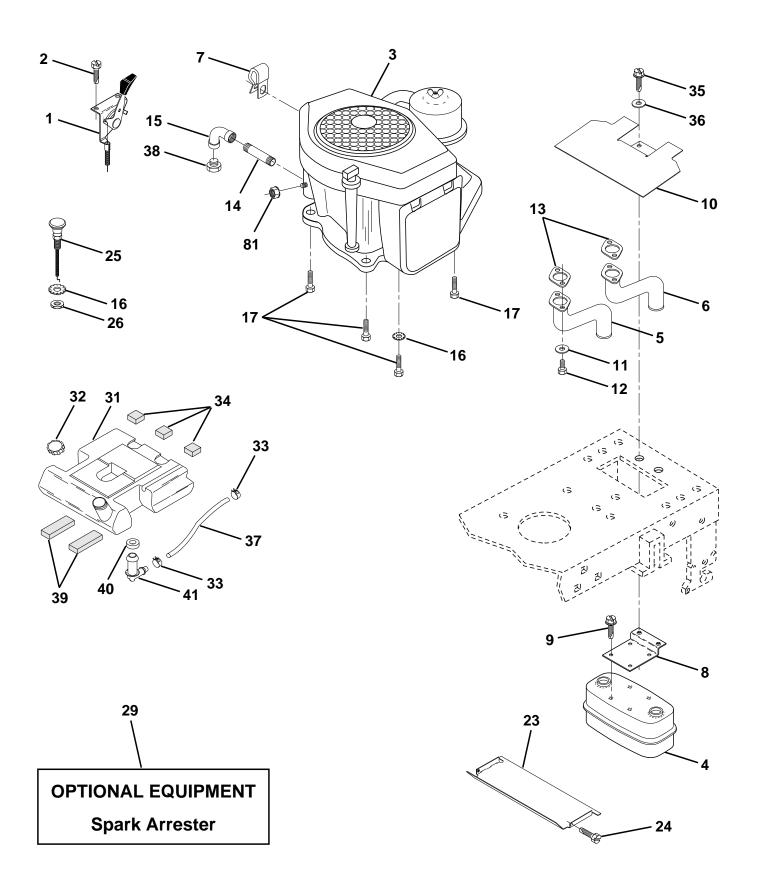


KEY NO.	PART NO.	DESCRIPTION
1	532059192	Cap Valve Tire
2	532065139	Stem Valve
3	532106222	Tire F Ts 15 X 6 0 - 6 Service
4	532059904	Tube Front (Service Item Only)
5	532141446	Rim Asm 6" front White Service
6	532124957	Fitting Grease (Front Wheel Only)
7	532124959	Bearing Flange (Front Wheel Only)
8	532141447	Rim Asm 8"rear White Service
9	532122082	Tire R Ts 20 10 C Service
10	532124926	Tube Rear (Service Item Only)
12	532124577	Cover Wheel 6"white
13	532124578	Cover Wheel 8"white

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

TRACTOR - - MODEL NUMBER YT180 (954001082B)

ENGINE



TRACTOR - - MODEL NUMBER YT180 (954001082B)

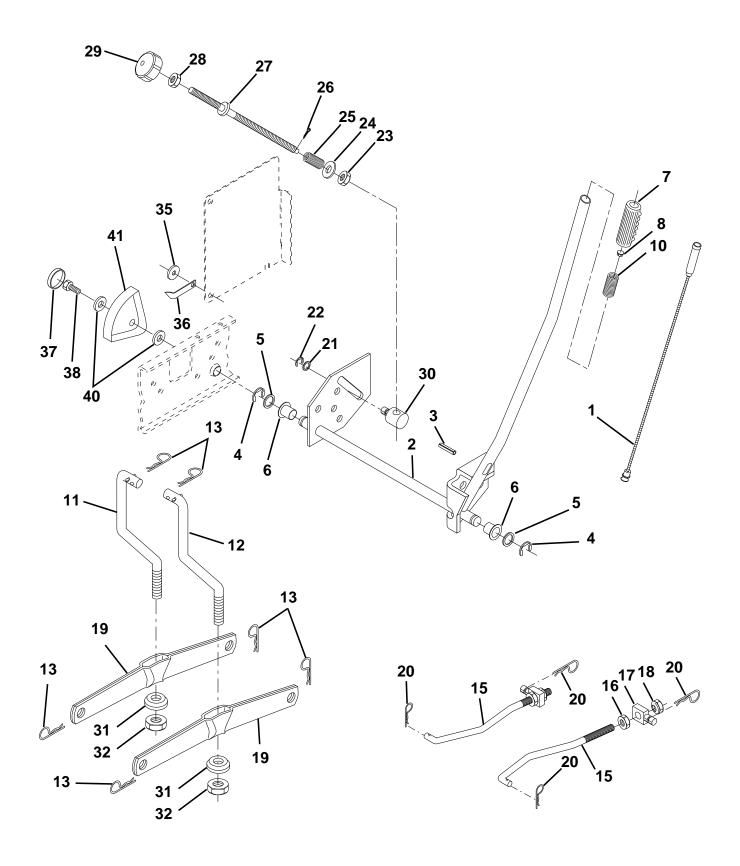
ENGINE

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9	532137214 817720410 532137978 532136215 532136216 532124996 532122439 817190408	Control RH Blk Flg 37 88 Screw Hex Thd Cut 1/4-20x5/8 T Engine Model No. MV18 Muffler LT B&S Tube Manifold LH Tube Manifold RH Clip Line Fuel 13/32 Mtg. Hole Bracket Muffler Mounting Screw Hex Wsh Thd Cut 1/4-20
10 11	532145552 810040500	Shield Heat LT Washer Lock Hvy Hlcl 1/4 (Order
12	874570512	from Engine Manufacturer) Bolt, Fin Hex 1/4-20 x 3/4 (Order from Engine Manufacturer)
13		Muffler Ğasket (Order from Engine Manufacturer)
14 15 16 17 23 24 25 26 29 31 32 33 34 35 36 37 38	813280336 813200300 811050600 817490624 532128953 817021008 532132782 873610600 532137180 532141070 532140527 532123487 532106082 817490512 819132012 532008543	Nipple Pipe 3/8 Npt X 4-1/2" Elbow Std 90 Degree 3/8-18 Npt Washer Lock Ext Tooth 3/8 Screw Thdrol 3/8-16 x 1-1/2 Shield Heat Browning LT/YT Screw Tap Hex #10-24unc X 1/2 Choke Control Nut, Fin Hex 3/8-24 Unf Kit Spark Arrestor (Flat Scrn) Tank Fuel 3 50 Rear Cap Asm Fuel W/sym Vented Clamp Hose Blk Pad, Spacer Screw Thdrol 5/16-18 x 3/4 Washer 13/32 x 1-1/4 x 12 Ga. Line Fuel 54" Plug Oil Drain (Order From Engine Manufacturer)
39 40 41 81	532109227 532124952 532139277 873510400	Pad, Idler Bushing Stem Tank Fuel Nut Keps Hex 1/4-20 Unc

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

TRACTOR - - MODEL NUMBER YT180 (954001082B)

MOWER LIFT ASSEMBLY



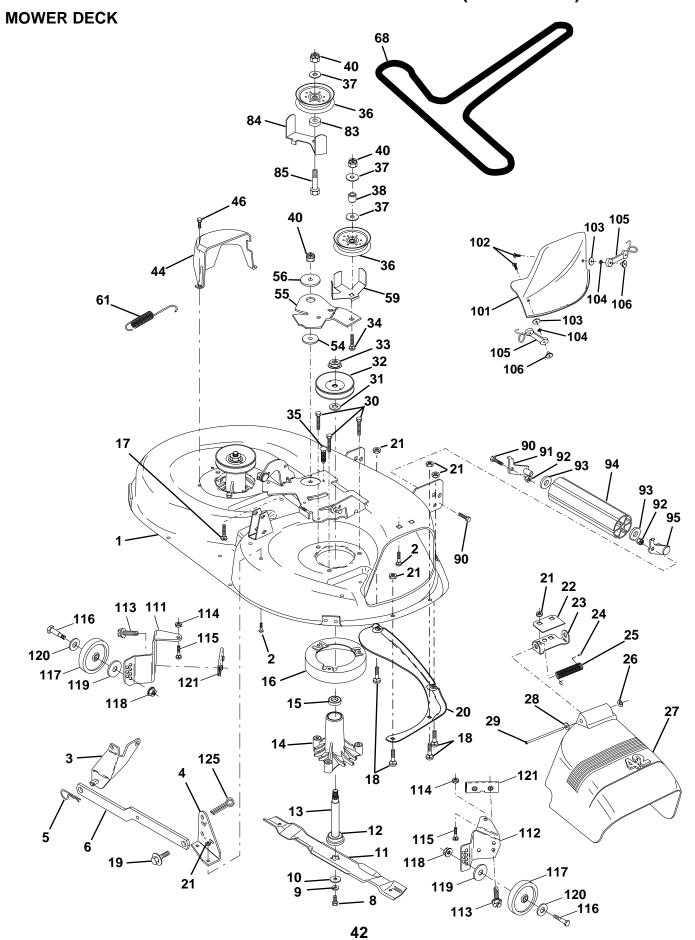
TRACTOR - - MODEL NUMBER YT180 (954001082B)

MOWER LIFT ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 0 11 2 13 15 6 17 18 19 0 1 2 2 2 2 2 2 2 2 3 3 1 2 3 5 6 7 8 0 4 1	532136971 532136968 532138284 81200002 819211621 532120183 532125631 532124526 532122512 532139865 532139866 532124670 532127218 873350800 532130171 873800800 532139868 532124660 819151216 812000037 532130807 819131016 532137150 876020308 532137150 876020308 532137167 873350600 532138057 532110810 532137167 873350600 532138057 532110810 532137150 876020308 532137150 876020308 532137150 876020308 532137150 876020308 532137150 876020308 532137150 876020308 532137150 876020308 532137150	Wire Asm Inner W/plunger 20 56 Shaft Asm Lift RH w/Inf W/T Pin Groove 1 500 Zinc E Ring #5133-62 Washer 21/32 X 1 X 21 Ga Bearing Nylon Blk 629 Id Grip Handle Fluted Blk Button Plunger Black Spring Cprsn 3 750 Oiled Link Lift LH Fixed Length Link Lift RH Fixed Length Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/wsh 1/2-13unc Arm Suspension Rear Retainer Spring Washer 15/32 X 3/4 X 16 Ga Ring Klip #t5304-37 Nut Special Washer 13/32 X 5/8 X 16 Ga Spring Compression Pin Cotter 3/32 X 1/2 Rod Adj Lift Zinc 9 75 Wrk Lg Nut Hex Jam 3/8-16 Unc Knob Inf 3/8-16 Unc Blk W/sym Trunnion Dp Stop Dbl Thds PLT Bearing Pvt Lift Spherical Nut Crownlock 3/8-24 Washer Nylon .44 x .75 x .032 Pointer Pnt Height ind .505 Plug Hole Blk 1.485/1.515 Dia. Screw Thdrol 5/16-18 x 3/4 Washer 11/32 x 1-1/2 10 Ga. Scale Ind. Height Blk.

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

TRACTOR - - MODEL NUMBER YT180 (954001082B)

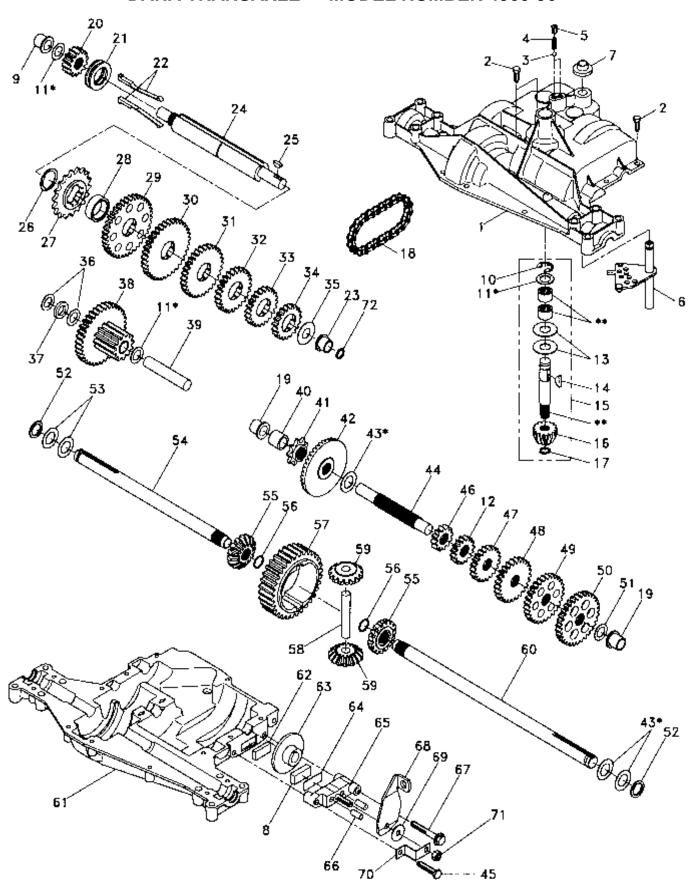


TRACTOR - - MODEL NUMBER YT180 (954001082B)

MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532144393	Deck Asm MWR 42"weldment	55	532140084	Arm Idler 42"mower LT/YT
2	872140506 532138017	Bolt Rdhd Sqnk 5/16-18unc X3/4	56 50	532122052	Spacer Retainer Pm Mower
4	532138440	Bracket Asm Fr Sway Bar 38/42 Bracket Asm Deck 42"sway Bar	59 61	532141043 532131950	Guard, Belt Spring Ext. Elect
5	532124670	Retainer Spring	68	532144200	V-Belt Mower
6	532130832	Arm Suspension Rear	83	532120958	Washer Sintered
8	532850857	Bolt 3/8-24x1 25 Gr8 Patched	84	532144394	Keeper Belt Idler Fixed
9	810030600	Washer Lock Hvy 3/8 Unplated	85	872140620	Bolt Carriage 3/8-16 x 2-1/2 Gr. 5
10	532140296	Washer Hard Blade Mower Vented	90	874760616	Bolt Fin Hex 3/8-16unc X 1
11	532134149	Blade Mower Mulching 42"	91	532132274	Bracket Asm Noseroller LH
12 13	532129895	Bearing Ball #6204 (Mandrel)	92	873800600	Nut Lock 3/8-16 Unc
14	532137645 532128774	Shaft Asm W/lower Bearing Housing Mandrel Vented(machd)	93 94	819171416 532132264	Washer 17/32 X 7/8 X 16 Ga Roller Nose 38 & 42
15	532110485	Bearing Ball Mandrel	9 4 95	532132273	Bracket Asm Noseroller RH
16	532140329	Stripper Mower Vented		532136420	Cover Mulching 42" Black
17	872110618	Bolt Carriage 3/8-16 X 2-1/4		871161010	Screw
18	872140505	Bolt Carr 5/16-18 X 5/8	103	819061216	Washer #10
19	532132827	Bolt Shoulder		810071000	Washer Lock #10
20	532136888	Baffle Vortex 42		532130758	Latch Asm. Bagger
21	873680500	Nut Crown Lock 5/16-18		532125004	Nut Weld
22 23	532134753 532131267	Stiffener Bracket 42"deck Bracket Deflector Mower 42"		532140353 532132262	Bracket Wheel Gauge Lh 42" Deck Bracket Wheel Gauge Rh 42" Deck
24	532105304	Cap Sleeve 80x 112 Blk Mower		817490512	Screw Thdrol 5/16-18 x 3/4
25	532123713	Spring Torsion Deflector 2 52		873510500	Nut Keps 5/16-18 UNC
26	532110452	Nut Push Phos & Oil		872110504	Bolt Carriage 5/16-Unc x 1/2
27	532130968	Shield Deflector Mower 42" Blk		532137644	Bolt Shld "Ă" 2.41 "B" 1.66
28	819111016	Washer 11/32 X 5/8 X 16 Ga		532105455	Wheel Gauge blk. 4.93
29	532131491	Rod Hinge 42"6 75 Wlg		873930600	Nut Centerlock 3/8-16 UNC
30	532138776	Screw Thdrol Hex Hd Žinc Mwr.		819121414	Washer 3/8 x 7/8 x 14 Ga.
31 32	532129963 532129861	Washer Spacer Mower Vented Pulley Mandrel 42"	120	819171512 532143723	Washer 17/32 x 15/16 x 12 Ga.
33	532137266	Nut 9/16top Lock Flng Cntr		876020816	Bracket Extruded Gauge Wheel Pin Cotter 1/4 x 1 Plated
34	872110622	Bolt Rdhd 3/8-16uncx2-3/4 Gr5		532145452	Deck Serv 42" Elec Vent (Standard
35	532133835	Fastner Christmas Tree		002110102	Deck - Order Nose Roller, Mulch
36	532131494	Pulley Idler Flat 3 060			Cover and Gauge Wheel
37	819131316	Washer 13/32 X 13/16 X 16 Ga			components separately Key Nos.
38	532132823	Spacer Spring Stop Idler		500400704	90-95, 101-106, and 111-121)
40	873680600	Nut Crownlock 3/8-16 Unc		532130794	Mandrel Assembly (Includes Key
44 46	532140088 532137729	Guard Mandrel LH Black Screw Thdrol 1/4-20x5/8			Numbers 8-10, 12-15, 31 and 33)
54	532133943	Washer Hardened	NOT	E: All compor	nent dimensions given in U.S. inches
				1 inch = 25	
				– 20	

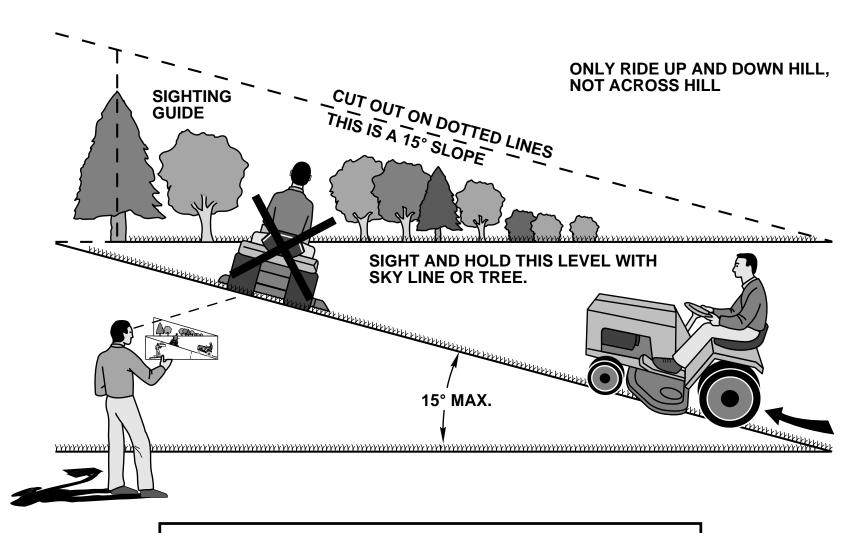
TRACTOR - - MODEL NUMBER YT180 (954001082B)
DANA TRANSAXLE - - MODEL NUMBER 4360-96



TRACTOR - - MODEL NUMBER YT180 (954001082B) DANA TRANSAXLE - - MODEL NUMBER 4360-96

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532132671	Housing, Upper	39	532124639	Shaft, Idler
2	532002274	Screw, Tapping, Large	40	532120472	Spacer .633 x .87 x .755
		1/4-20 x .734	41	532105928	Sprocket, 9 Teeth
3	532134400	Ball, Detent	42	532106605	Gear, Bevel, 42 Teeth
4	532105904	Spring, Detent	43	532134394	Assembly, Kit, Shim, .750 Shaft
5	532105905	Screw, Set	44	532120473	Shaft, Drive
6	532138235	Kit, Shifter Assembly	45	532106596	Screw, Tapping, Large
7	532134399	Boot, Shifter			5/16-18 x 1.44
8	532120951	Puck, Friction	46	532142678	Gear, Spur, 12 Teeth
9	532148266	Bearing, Flange	47	532120407	Gear, Spur, 20 Teeth
10	532002225	Ring, Retaining	48	532106589	Gear, Spur, 25 Teeth
11	532134793	Assembly, Kit, Shim, .625 Shaft	49	532120408	Gear, Spur, 28 Teeth
12	532143679	Gear, Spur, 15 Teeth	50	532105937	Gear, Spur, 31 Teeth
13	532120415	Washer, Plain .632 x 1.38 x .046	51	532002226	Washer, Plain .632 x 1.00 x .060
14	532142674	Key, Woodruff, #9	52	532134401	Washer, Neoprene
15	532106846	Assembly, Kit, Input Shaft	53	532002264	Washer, Plain .758 x 1.25 x .031
16	532106095	Pinion, Bevel, 14 Teeth	54	532120474	Axle, L.H.
17	532105909	Ring, Retaining	55	532110081	Gear, Miter, 15 Teeth
18	532 105910	Chain, 24 Pitches	56	532105941	Ring, Retaining_
19	532105911	Bearing, Flange_	57	532110071	Gear, Spur, 32 Teeth
20	532142675	Gear, Spur, 14 Teeth	58	532120952	Shaft, Cross
21	532148267	Collar, Clutch	59	532110082	Gear, Miter, 15 Teeth
22	532138237	Assembly, Kit, Clutch Keys	60	532120475	Axle, R.H.
23	532148268	Bearing, Flange	61	532142680	Housing, Lower
24	532142676	Shaft, Intermediate	62	532120961	Puck, Friction
25	532002244	Key, Woodruff, #61	63	532007294	Disc, Brake
26	532105916	Ring, Retaining	64	532108989	Spacer
27	532120470	Sprocket, 18 Teeth	65	532120953	Jaw, Brake
28	532110070	Spacer	66	532120954	Pin, Dowel
29	532142677	Gear, Spur, 37 Teeth	67	532134799	Screw, Tapping 5/16-18 x 2.25
30	532142681	Gear, Spur, 35 Teeth	68	532138244	Lever, Actuating
31	532124644	Gear, Spur, 30 Teeth	69	532108996	Washer, Plain .321 x 1.00 x .055
32	532108980	Gear, Spur, 25 Teeth	70	532120956	Bracket, Anti-Rotation
33	532120406	Gear, Spur, 22 Teeth	71	873810500	Locknut 5/16-24
34	532134796	Gear, Spur, 19 Teeth	72	532148269	Seal, Oil
35	532105925	Washer, Plain .640 x 1.37 x .061	73	532120416	Grease
36	532002232	Washer, Plain .632 x 1.00 x .026			
37	532108978	Spacer .630 x 1.00 x .169	NOT	E: All compone	ent dimensions given in U.S. inches
38	532110079	Assembly, Gear, Combination,		1 inch = 25.	4 mm
		12 Teeth and 35 Teeth		1 111011 – 20.	T 111111

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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



SECTION 1: LIMITED WARRANTY

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defective material and workmanship from the date of purchase for the "Warranty Period" here stated dependent upon the type of product use. Warranty period is as follows for products listed:

- **5 Year Warranty:** Plastic walk behind mower decks for noncommercial, noninstitutional or nonincome producing use.
- **2 Year Warranty:** Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers and attachments for noncommercial, noninstitutional or nonincome producing use. Ignition coils or modules on the chain saws, clearing saws and trimmers.
- 1 Year Warranty: Chain saws, clearing saws, trimmers, blowers and batteries for noncommercial, noninstitutional or nonincome producing use.
- 90 Day Warranty: Any Husqvarna product used for rental, commercial, professional, or income producing use
- 30 Day Warranty: Husqvarna professional bow bars.
- **30 Day Replacement Part Warranty:** Unless otherwise stated, replacement parts are warranted for 30 days from date of purchase.

SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

Husqvarna will remedy defects in material and workmanship during the warranty period by repairing or replacing, at Husqvarna's option, the defective component without charge for parts or labor.

SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY

The following items are not covered by this warranty:

- (1) Normal customer maintenance items (i.e., belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs, starter ropes and tines).
- (2) Normal wear, normal adjustment, standard hardware or items worn through regular use.
- (3) Natural discoloration of material due to ultraviolet light.
- (4) The replacement or maintenance of worn items.
- (5) Briggs & Stratton, Kawasaki and Kohler engines, including starters, generators, alternators and accessories. These items are covered by the engine manufacturer's warranty as stated with the product information supplied at the time of purchase. All claims for specified engines, starters, generators, alternators and accessories should be sent to the appropriate manufacturer.
- (6) Agri-Fab, Foote, and Tecumseh-Peerless drive systems. These items are covered by the drive system manufacturer's warranty as stated with the product information supplied at the time of purchase. All claims for specified drive systems should be sent to the appropriate manufacturer.

SECTION 4: EXCEPTIONS AND LIMITATIONS

This warranty shall be inapplicable to defects resulting from the following:

(1) Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage habits.

- (2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna.
- (3) Alterations or modifications that affect the unit's performance, operation, safety, durability, change its intended use, or cause failure of compliance with current regulatory standards or applicable federal, state or local laws.
- (4) Use of parts or accessories which are not recommended by Husqvarna Forest & Garden Company.
- (5) Additional damage to parts or components due to continued use occurring after any of the above.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

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

SECTION 5: CUSTOMER RESPONSIBILITIES

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

SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION

It is the Owner's and Dealer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to validate the warranty and to provide post-sale service.

Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty service. This receipt must include date purchased, model number, serial number, and complete name and address of the selling dealer.

To obtain the benefit of this warranty, the product believed to be defective must be delivered in a timely manner, within thirty (30) days from date of operational problem or failure, and during the warranty period, to any authorized Husqvarna dealer. The product must be delivered to the dealer, at the owner's expense. An authorized Husqvarna dealer can be normally located through the "Yellow Pages" of the local telephone directory.

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

530-0683-91-2-04/21/92

954 00 10-82 532145534 12.21.94