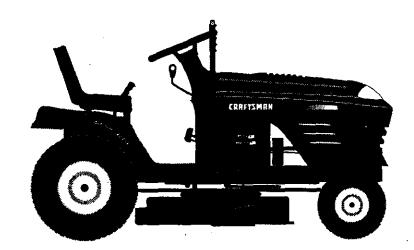
# Owner's Manual

# CRAFTSMAN°

20.5 HP
ELECTRIC START
42" MOWER
AUTOMATIC
LAWN TRACTOR

Model No. **917.270841** 

- Safety
- Assembly
- Operation
- Maintenance
- Repair Parts





### **CAUTION:**

Read and follow all Safety Rules and Instructions before operating this equipment. For answers to your questions about this product, Call:

1-800-659-5917 Sears Craftsman Help Line 5 am - 5 pm, Mon - Sat

Sears, Roebuck and Co., Hoffman Estates, IL 60179 Visit our Craftsman website: www.sears.com/craftsman

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#### WARRANTY

#### LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT

For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts, etc.
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the equipment according to the instructions contained in the owner's manual.
- · Riding equipment used for commercial or rental purposes.

#### LIMITED 90 DAY WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge. In-home warranty service on your Craftsman riding equipment is available at no charge for 30 days from the date of purchase. Please contact your nearest service center. After 30 days from the date of purchase, warranty service is available by taking your Craftsman riding equipment to your nearest Sears Service Center. (In-home warranty service will still be available after 30 days from the date of purchase but a standard trip charge will apply). This warranty applies only while this product is in the United States. This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Sears, Roebuck and Co., D/817 WA, Hoffman Estates, IL 60179

#### SAFETY RULES

#### **GENERAL OPERATION**

- Read, understand, and fellow 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.

#### **SAFETY RULES**

- 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.

#### **SLOPE OPERATION**

Slopes are a major factor related to lossof-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.

#### DΩ

- 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.

#### 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.

#### **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.

#### **SAFETY RULES**

- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut.
   Wrap the blade(s) or wear gloves, and use extra caution when servicing them
- Check brake operation frequently.
   Adjust and service as required.











- 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.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.

Look for this symbol to point out important safety precautions. It means CAU-TION!!! BECOME AWARE!!! YOUR SAFE-TY IS INVOLVED.

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

- Mow up and down slopes (15° Max), n across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneverterrain could overturn the machine. Talgrass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. I tires lose traction, disengage the blade and proceed slowly straight down the slope.
- Do not turn on slopes unless necessar and then, turn slowly and gradually downhill, if possible.

AWARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

#### **PRODUCT SPECIFICATIONS**

GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR				
OIL TYPE (API-SF/SG/SH):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)				
OIL CAPACITY:	3.0 PINTS				
SPARK PLUG: (GAP: .030")	Champion RJ19LM OR J19LM				
VALVE CLEARANCE: INTAKE: .004006					
	EXHAUST: :007009				
GROUND SPEED (MPH):	FORWARD: 0-5.5 REVERSE: 0-2.4				
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI				
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS				
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R				
BLADE BOLT TORQUE:	27–35 FT. LBS.				

CONGRATULATIONS on your purchase of a Craftsman 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 Sears 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".

#### **MAINTENANCE AGREEMENT**

A Sears Maintenance Agreement is available on this product. Contact your nearest Sears store for details.

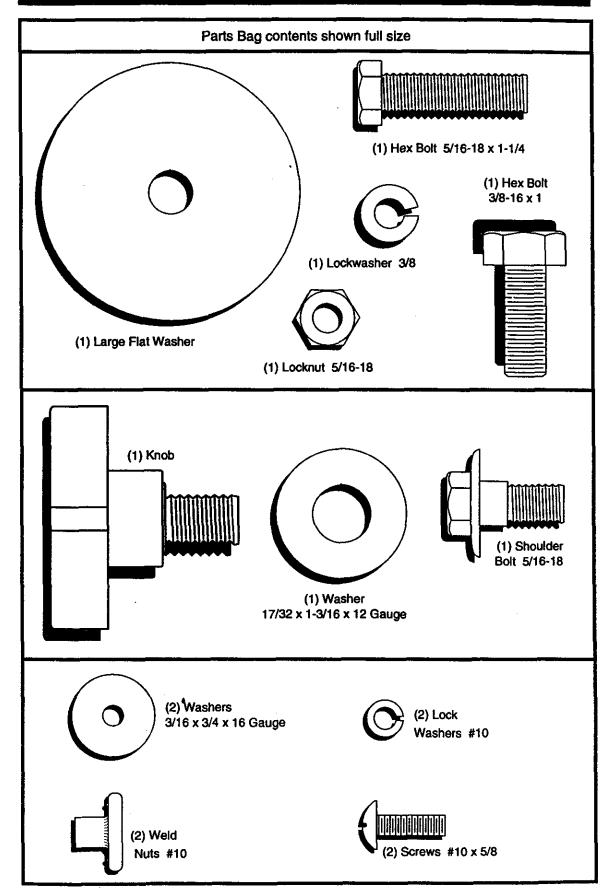
#### **CUSTOMER RESPONSIBILITIES**

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

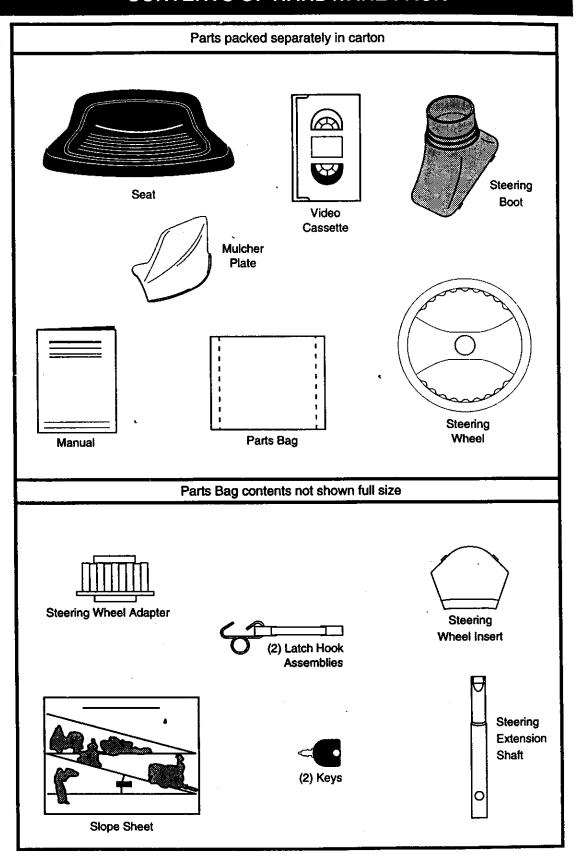
▲WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester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

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

## CONTENTS OF HARDWARE PACK



# CONTENTS OF HARDWARE PACK



#### **ASSEMBLY**

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

# TOOLS REQUIRED FOR ASSEMBLY

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

are listed below.
(1) 9/16" wrench
(1) 3/4" Socket w/
drive rachet

(2) 1/2" wrench (1) Phillips Screw-(1) Utility knife driver

driver (1) Tire pressure

gauge

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

# TO REMOVE TRACTOR FROM CARTON

#### **UNPACK CARTON**

(1)Pliers

- Remove all accessible loose parts and parts boxes from shipping carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of shipping carton, and lay panels flat.
- Check for any additional loose parts or boxes and remove.

# BEFORE ROLLING TRACTOR OFF SKID

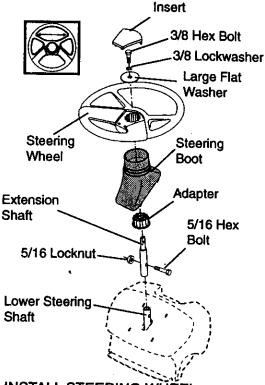
#### ATTACH STEERING WHEEL

# ASSEMBLE EXTENSION SHAFT AND BOOT

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

**IMPORTANT:** Tighten bolt and nut securely to 18-22 ft. lbs. torque.

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



#### INSTALL STEERING WHEEL

 Position front wheels of the tractor so they are pointing straight forward.

Slide steering wheel adapter onto steering shaft extension.

 Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.

 Assemble large flat washer, 3/8 lock washer, 3/8 hex bolt and tighten securely.

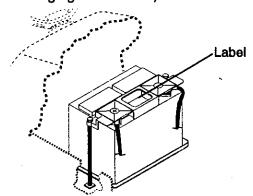
Snap steering wheel insert into center of steering wheel.

Remove protective materials from tractor hood and grill.

IMPORTANT: Check for and remove any staples in skid that may puncture tires where tractor is to roll off skid.

# HOW TO SET UP YOUR TRACTOR CHECK BATTERY

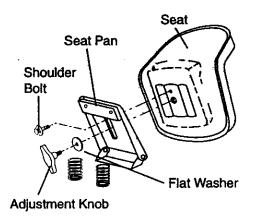
- · Lift hood to raised position.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in MAINTE-NANCE section of this manual for charging instructions).



#### **INSTALL SEAT**

Adjust seat before tightening adjustment knob.

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



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

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

#### TO DRIVE TRACTOR OFF SKID

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

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

#### **INSTALL MULCHER PLATE**

 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.

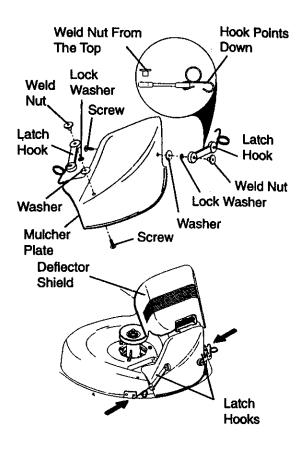
- Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.

ACAUTION: 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.

NOTE: It is not necessary to change blades. The mulcher blades are designed for discharging and bagging also.



#### **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 5 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 sectoin of this manual. Verify that the belts are routed correctly.

#### **CHECK BRAKE SYSTEM**

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

#### **✓ CHECKLIST**

# PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

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

# **OPERATION**

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



**BATTERY** 



**CAUTION OR** WARNING



REVERSE



**FORWARD** 



**FAST** 



SLOW



**ENGINE ON** 



**ENGINE OFF** 



OIL PRESSURE



LIGHTS ON



**OVER TEMP** LIGHT



**FUEL** 



CHOKE

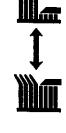




MOWER HEIGHT PARKING BRAKE LOCKED



UNLOCKED



**MOWER LIFT** 



**ATTACHMENT CLUTCH ENGAGED** 



REVERSE



**NEUTRAL** 



HIGH



PARKING BRAKE



IGNITION



**ATTACHMENT CLUTCH DISENGAGED** 







**SLOPE HAZARDS** 



LOW







**FREE WHEEL** (Automatic Models only)

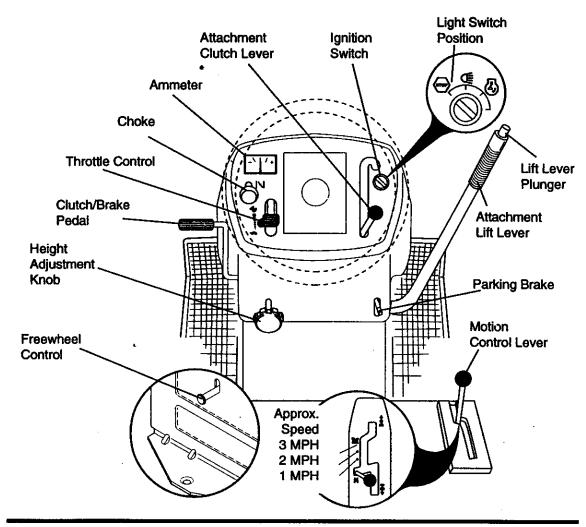


DANGER, KEEP HANDS AND FEET AWAY

#### **KNOW YOUR TRACTOR**

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

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



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

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

LIGHT SWITCH: Turns the headlights on and off

CHOKE CONTROL: Used when starting a cold engine.

THROTTLE CONTROL: Used to control engine speed.

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

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

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

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

AMMETER: Indicates battery charging (+) or discharging (-).

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



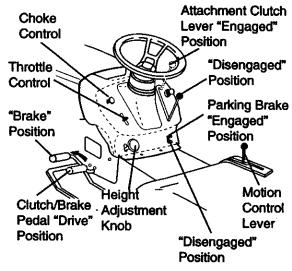
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles, or standard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

#### HOW TO USE YOUR TRACTOR

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.

#### TO SET PARKING BRAKE

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



#### **STOPPING**

#### **MOWER BLADES -**

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

#### **GROUND DRIVE -**

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

**IMPORTANT:** The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

#### **ENGINE** -

Move throttle control to slow position.

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

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized
- Never use choke to stop engine. **IMPORTANT:** Leaving the ignition switch in any position other than "OFF" will cause the battery to be discharged, (dead).

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

A CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

#### THROTTLE CONTROL

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.

#### CHOKE CONTROL

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

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

**NOTE:** The effort to move the motion control lever will reduce after the first few hours of use. This is normal.

#### TO ADJUST MOWER CUTTING HEIGHT The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise (C) to raise cutting
- Turn knob counterclockwise (3) to lower cutting height.

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

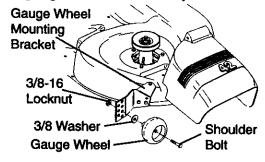
 The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.

 For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

TO ADJUST GAUGE WHEELS

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

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



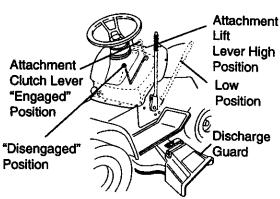
#### TO OPERATE MOWER

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.

- Šelect 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.

#### TO OPERATE ON HILLS

ACAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope. Use the slope guide provided at the back of this manual.



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

IMPORTANT: The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

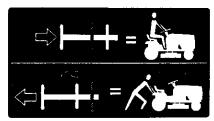
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

#### TO TRANSPORT

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

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

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



#### TOWING CARTS AND OTHER ATTACHMENTS

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

#### BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL

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

· Check engine oil with tractor on level

ground.

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

#### ADD GASOLINE

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

**IMPORTANT:** When operating in temperatures below 32°F(0°C), use fresh, clean winter grade gasoline to help insure good

cold weather starting.

AWARNING: 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.

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

#### TO START ENGINE

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

Be sure freewheel control is in the transmission engaged position.

Sit on seat in operating position, depress clutch/brake pedal and set parking brake.

Place motion control lever in neutral (N)

position.

Move attachment clutch to "DISEN-GAGED" position.

Move throttle control to fast position

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

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

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

#### WARM WEATHER STARTING (50° F AND ABOVE)

When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue

to push the control in slowly.

The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

#### COLD WEATHER STARTING (50° F AND BELOW)

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

#### **AUTOMATIC TRANSMISSION WARM-UP**

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

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

#### **PURGE TRANSMISSION**

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

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

**IMPORTANT:** Should your transmission require removal for service or replacement, it should be purged after reinstallation before operating the tractor.

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

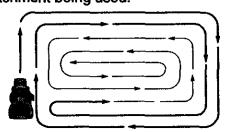
**NOTE:** During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

- Move motion control lever to neutral (N) position. Shut off engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine.
   After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward; after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and ready for normal operation.

#### **MOWING TIPS**

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. 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.
- 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 the best 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.

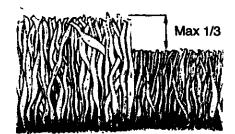


#### **MULCHING MOWING TIPS**

**IMPORTANT:** For best performance, keep mower housing free of built-up grass and trash. Clean after each use.

• The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.

- Avoid cutting your lawn when it is wet.
  Wet grass tends to form clumps and
  interferes with the mulching action. The
  best time to mow your lawn is the early
  afternoon. At this time the grass has
  dried and the newly cut area will not be
  exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades. For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.



#### MAINTENANCE

#### **CUSTOMER RESPONSIBILITIES**

AS	MAINTENANCE SCHEDULI L IN DATES YOU COMPLETE GULAR SERVICE	E	EFORE	EACHUS VERY 8	E KOURS VERY 25	AFEM E	HOUR!	S HOUR SERY SE VERY BE	SON	SER	VICE	DAT	res
	Check Brake Operation	<b>V</b>	1										
	Check Tire Pressure	1	1										
Т	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	/				1/7		1					
I A	Sharpen/Replace Mower Blades			1/4									
Ç	Lubrication Chart		<u> </u>	<b>V</b>				~					
lò	Check Battery Level			<b>V</b> <sub>0</sub>									
R	Clean Battery and Terminals			<b>V</b>				/					
	Check Transaxle Cooling	١,		<b>V</b>				<u> </u>					
ŀ	Adjust Blade Belt(s) Tension					<b>√</b> 5		<u> </u>					
	Adjust Motion Drive Belt(s) Tension					<b>√</b> 5							
	Check Engine Oil Level	~	1										
	Change Engine Oil	1		1,2,3				1					
ΙE	Clean Air Filter			<b>V</b> 2				<u> </u>					
ĪÑ	Clean Air Screen			<b>V</b> <sub>2</sub>									
Ģ	Inspect Muffler/Spark Arrester		•		1								
l h	Replace Oil Filter (If equipped)					V1.2	<u> </u>						
ΙË	Clean Engine Cooling Fins		Τ.			1/2	<u> </u>						
-	Replace Spark Plug		<u> </u>		<u> </u>	<b>V</b>	1	<u> </u>	<u> </u>				
	Replace Air Filter Paper Cartridge			L		1/2	L						
I	Replace Fuel Filter						1				l		

- 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

#### **GENERAL RECOMMENDATIONS**

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your tractor. All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

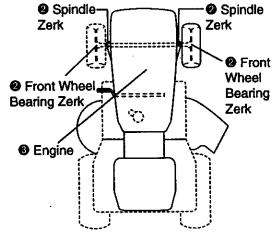
#### **BEFORE EACH USE**

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

5 - If equipped with adjustable system.

- 6 Not required if equipped with maintenance-free battery.
  7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum.

#### LUBRICATION CHART



- SAE 30 or 10w30 Motor OIL
- @ General Purpose Grease
- Refer to Maintenance "Engine" Section

IMPORTANT: Do not oil or grease the pivot points which have special nylon bear-ings. 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.

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#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" 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.

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

#### **OPERATOR PRESENCE SYSTEM**

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

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

#### **BLADE CARE**

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

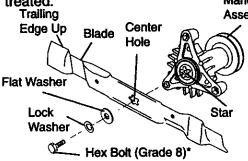
#### **BLADE REMOVAL**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.

**IMPORTANT:** To ensure proper assembly, center hole in blade must align with star on mandrel assembly.

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

IMPORTANT: Blade bolt is grade 8 heat treated.
Trailing Assembly



#### TO SHARPEN BLADE

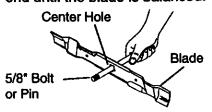
**NOTE:** We do not recommend sharpening blade but if you do, be sure the blade is balanced.

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

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

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

Slide blade onto 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.



#### **BATTERY**

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

life.

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour. TO CLEAN BATTERY AND TERMINALS Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.
- Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and
- Clean terminals and battery cable ends with wire brush until bright.
- · Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "REPLACING BATTERY" in the SERVICE AND ADJUSTMENTS section of this manual).

#### **V-BELTS**

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

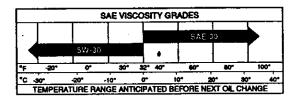
#### TRANSAXLE COOLING

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

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

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

#### TRANSAXLE PUMP FLUID



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

#### **ENGINE**

#### LUBRICATION

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

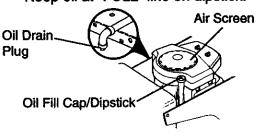
**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil. Change the oil after every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one

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

#### TO CHANGE ENGINE OIL

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

- 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 "PROD-UCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.



#### CLEAN AIR SCREEN

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn 21 dried gum fibers.

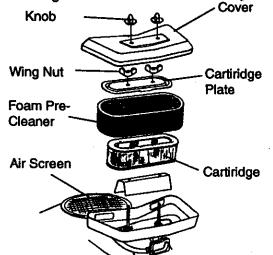
#### **AIR FILTER**

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

Service air cleaner more often under dusty conditions.

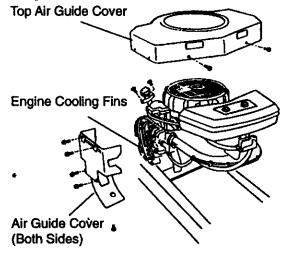
- Remove knob(s) and cover.
   TO SERVICE PRE-CLEANER
- · Slide foam pre-cleaner off cartridge.
- · Wash it in liquid detergent and water.
- · Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace precleaner.
- · Reinstall pre-cleaner over cartridge.
- Reinstall cover and secure with knob(s).
   TO SERVICE CARTRIDGE
- Remove wing nuts and cartridge plate.
- Carefully remove cartridge to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge plate, wing nuts, precleaner, cover and secure with knob(s).

**IMPORTANT:** Petroleum solvents, such as kerosene, are not to be used to clean the cartridge. They may cause deterioration of the cartridge. Do not oil cartridge. Do not use pressurized air to clean or dry cartridge.



#### **ENGINE COOLING FINS**

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).



#### **MUFFLER**

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

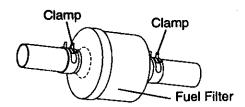
#### **SPARK PLUGS**

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 5 of this manual.

#### **IN-LINE FUEL FILTER**

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

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



#### **CLEANING**

 Clean engine, battery, seat, finish, etc. of all foreign matter.

- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

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

#### SERVICE AND ADJUSTMENTS

**ACAUTION:** Before performing any service or adjustments:

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

#### TO REMOVE MOWER

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

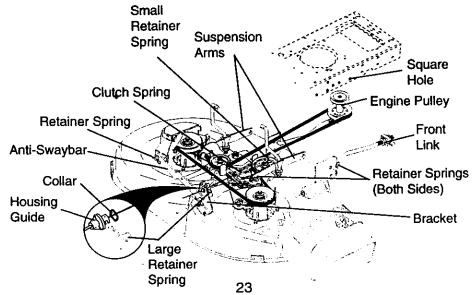
- Place attachment clutch in "DISEN-GAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- · Roll belt off engine pulley.
- Remove small retainer spring, and lift clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing guide out of bracket.
- Disconnect anti-swaybar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.

- Disconnect front links from deck by removing tetainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: If an attachment other than the mower deck is to be mounted on the tractor, remove the front links and hook the clutch spring onto square hole in frame.

#### TO INSTALL MOWER

- 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.



#### TO LEVEL MOWER HOUSING

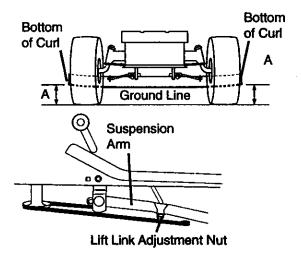
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PROD-UCT SPECIFICATIONS"). If tires are over or underinflated, you will not properly adjust your mower.

#### SIDE-TO-SIDE ADJUSTMENT

- · 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.



#### FRONT-TO-BACK ADJUSTMENT

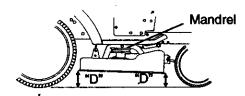
IMPORTANT: Deck must be level side-toside. If the following front-to-back adjustment is necessary, be sure to adjust both front links equally so mower will stay level side-to-side.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

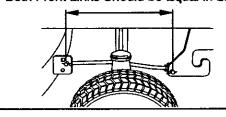
Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

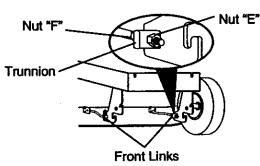
· Before making any necessary adjust-

- ments, 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 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links.
   Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" agains trunnion on both front links.
- · Recheck side-to-side adjustment.



Both Front Links Should be Equal in Length





# TO REPLACE MOWER BLADE DRIVE BELT (See Illustration Next Page)

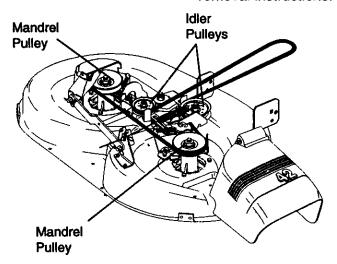
The mower blade drive belt may be replaced without tools. Park the tractor or level surface. Engage parking brake.

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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

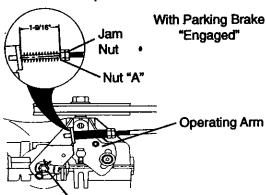


#### **TO ADJUST BRAKE**

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

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

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

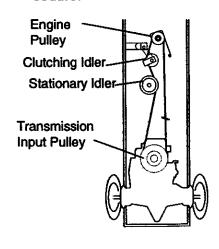


Do Not touch this nut. If further brake adjustment is necessary contact your nearest authorized service center/department

#### TO REPLACE MOTION DRIVE BELT

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.)
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor.
   Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

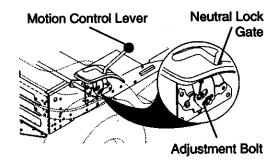


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#### **TO ADJUST MOTION CONTROL LEVER**

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

- Loosen adjustment bolt in front of the right rear wheel, and lightly tighten.
- Start engine and move motion control lever until tractor does not move forward or backward.
- Hold motion control lever in that position and turn engine off.
- While holding motion control lever in place, loosen the adjustment bolt.
- Move motion control lever to the neutral (N) (lock gate) position.
- Tighten adjustment bolt securely.
   NOTE: If additional clearance is needed to get to adjustment bolt, move mower deck height to the lowest position.
   After above adjustment is made, if the tractor still creeps forward or backward while motion control lever is in neutral position, follow these steps:
- Loosen the adjustment bolt.
- Move the motion control lever 1/4 to 1/2 inch in the direction it is trying to creep.
- · Tighten adjustment bolt securely.
- · Start engine and test.
- If tractor still creeps, repeat above steps until satisfied.



#### TRANSMISSION REMOVAL/REPLACE-MENT

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

#### TO ADJUST STEERING WHEEL ALIGN-MENT

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

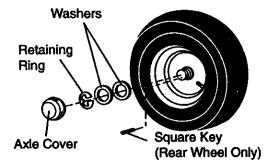
#### FRONT WHEEL TOE-IN/CAMBER

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

#### TO REMOVE WHEEL FOR REPAIRS

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

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



# TO START ENGINE WITH A WEAK BATTERY

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

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

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

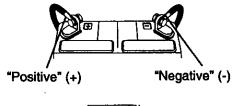
**IMPORTANT:** Your tractor is equipped with a 12 volt negative grounded system. The other vehicle must also be a 12 volt negative grounded system. Do not use your tractor battery to start other vehicles.

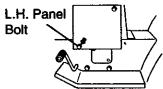
#### TO ATTACH JUMPER CABLES -

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

# TO REMOVE CABLES, REVERSE ORDER -

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





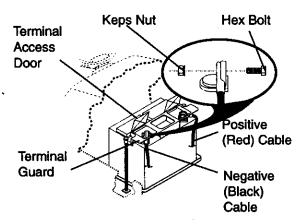
#### REPLACING BATTERY

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

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

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

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



#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

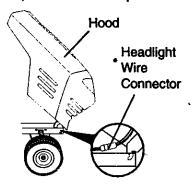
Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

#### TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

#### TO REMOVE HOOD AND GRILL AS-SEMBLY

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



#### **ENGINE**

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any nonroad engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

# TO ADJUST THROTTLE CONTROL CABLE

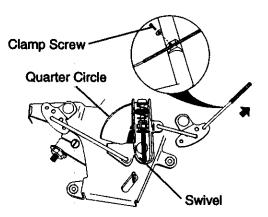
The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

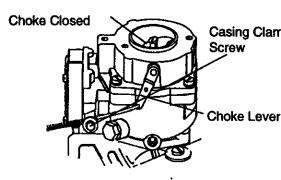
- With engine not running, move throttle control lever to fast position.
- Check that swivel is against side of quarter circle. If it is not, loosen cable clamp screw and pull cable back until swivel is against quarter circle. Tighten cable clamp screw securely.

#### TO ADJUST CHOKE CONTROL

The choke 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 choke control (located on dash panel) to full choke position.
- Remove air cleaner cover, filter and cartridge plate to expose carburetor choke (see "AIR FILTER" in the Customer Responsibilities section of this manual).
- Choke should be closed. If it is not, loosen casing clamp screw and move choke cable until choke is completely closed. Tighten casing clamp screw securely.
- · Reassemble air cleaner.





#### TO ADJUST CARBURETOR

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

In general, turning the mixture screw in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the mixture screw out (counter-clockwise) 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 and choke are adjusted properly (see above).
- With engine off turn idle mixture screw in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 to 1-1/2 turns.

#### **FINAL SETTING**

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/ motion contro lever in neutral (N) position.
- With throttle control lever in slow position, hold throttle lever against idle speed screw and adjust idle speed screw to obtain 1200 to 1400 RPM.

 While still holding throttle lever against idle speed screw, turn idle mixture screw in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn screw to a point midway between those two positions.

 Continue to hold throttle lever against idle speed screw and adjust idle speed screw to obtain 900 to 1200 RPM. Re-

lease throttle lever.

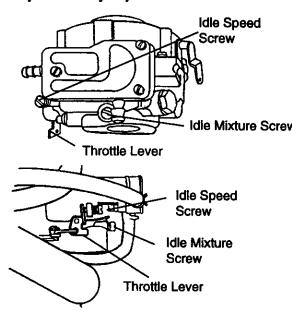
#### **ACCELERATION TEST**

 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.



#### **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.

ACAUTION: 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. This will allow you to clean it thoroughly. Remove all dirt, grease, leaves, etc. Store in a clean, dry area.

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

#### **BATTERY**

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

#### **ENGINE**

#### **FUEL SYSTEM**

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel filter, fuel hose, or tank during storage. Also, experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract 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 Maintenance section of this manual).

#### CYLINDER(S)

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

#### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if it 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 cause your tractor to rust.

**IMPORTANT:** Never cover tractor while engine and exhaust areas are still warm.

#### TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Will not start	<ul> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ul>	<ul> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service and Adjustments section.</li> <li>Contact an authorized service center.</li> </ul>
Hard to start	<ul> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ul>	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. See "To Adjust Carburetor" in Service and Adjustments section. Contact an authorized service center.
Engine will not turn over	<ul> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ul>	<ul> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center.</li> </ul>
Engine clicks but will not start	<ul> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ul>	<ul> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ul>
Loss of power	<ul><li>Cutting too much grass/too fast.</li><li>Throttle in "CHOKE" position.</li></ul>	Set in "Higher Cut" position/reduce speed.     Adjust throttle control.

#### TROUBLESHOOTING CHART

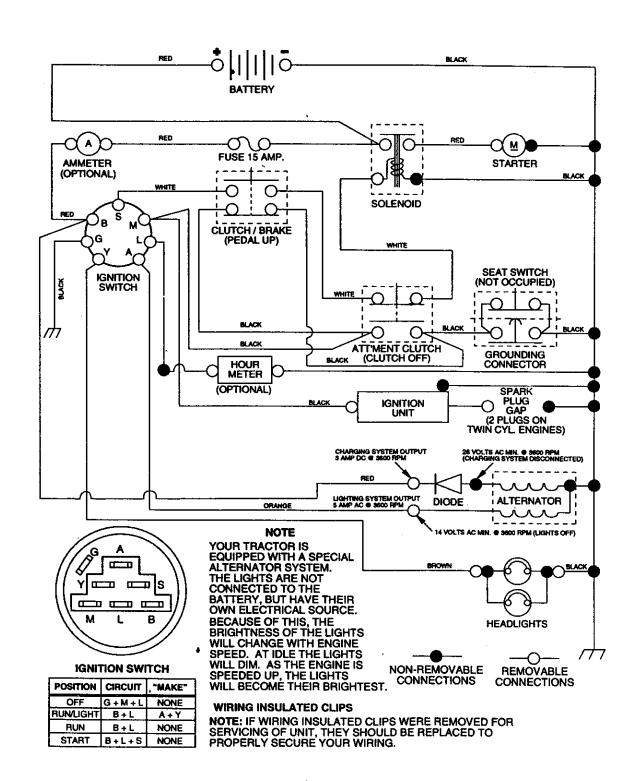
IKOURLESHOOTI		1
PROBLEM	CAUSE	CORRECTION
Loss of power (cont'd)	<ul> <li>Build-up of grass, leaves and trash under mower.</li> </ul>	Clean underside of mower housing.
	Dirty air filter.	Clean/replace air filter.
	Low oil level/dirty oil.	Check oil level/change oil.
	Faulty spark plug.	Clean and regap or change
i	7 - 7 - 7	spark plug.
	Dirty fuel filter.	Replace fuel filter.
	Stale or dirty fuel.	Drain fuel tank and refill with fresh gasoline.
	Water in fuel.	Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.
	Spark plug-wire loose.	Connect and tighten spark plug wire.
	Dirty engine air screen/fins.	Clean engine air screen/fins.
	Dirty/clogged muffler.	Clean/replace muffler.
	<ul> <li>Loose or damaged wiring.</li> </ul>	Check all wiring. ,
	Carburetor out of adjustment.	See "To Adjust Carburetor" in Service and Adjustments section.
	Engine valves out of adjust- ment.	Contact an authorized service center.
Excessive vibration	Worn, bent or loose blade.	Replace blade. Tighten blade bolt.
•	Bent blade mandrel.	Replace blade mandrel.
	Loose/damaged part(s).	Tighten loose part(s). Replace
		damaged parts.
Engine continues to	Faulty operator-safety pres-	Check wiring, switches and con-
run when operator	ence control system.	nections. If not
leaves seat with at-		corrected, contact an authorized
tachment clutch		service center/
engaged		department.
Poor cut - uneven	Worn, bent or loose blade.	Replace blade. Tighten blade
	<b>A</b>	bolt.
	Mower deck not level.	<ul> <li>Level mower deck.</li> <li>Clean underside of mower hous-</li> </ul>
	Buildup of grass, leaves, and trash under mower.	ing.
	Bent blade mandrel.	Replace blade mandrel.
	Clogged mower deck vent	Clean around mandrels to open
	holes from buildup of	vent holes.
	grass, leaves, and trash	
	around mandrels.	- Damana challachian
Mower blades will not rotate	Obstruction in clutch mechanism.	Remove obstruction.
lotate	Worn/damaged mower drive	Replace mower drive belt.
	belt.	- Bankas idler pulley
	<ul><li>Frozen idler pulley.</li><li>Frozen blade mandrel.</li></ul>	<ul> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ul>
Poor grass discharge	Frozen blade mandrel.     Engine speed too slow.	Place throttle control in "FAST"
roomy lass discharge	- Engine speed too slow.	position.
	Travel speed too fast.	Shift to slower speed.
	Wet grass.	Allow grass to dry before mow-
		ing.
	<u> </u>	

#### TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Poor grass discharge	Mower deck not level.	Level mower deck.
(cont'd)	Low/uneven tire air pressure.	Check tires for proper air pressure.
	Worn, bent or loose blade.	Replace/sharpen blade. Tighten blade bolt.
	Buildup of grass, leaves and trash under mower.	Clean underside of mower housing.
	Mower drive belt worn.	Replace mower drive belt.
	Blades improperly installed.	Reinstall blades sharp edge down.
	Improper blades used.	Replace with blades listed in this manual.
	Clogged mower deck vent	Clean around mandrels to open
	holes from buildup of	vent holes.
	grass, leaves, and trash	
	around mandrels.	
Headlight(s) not	Switch is "OFF".	Turn switch "ON".
working (if so	Bulb(s) burned out.	Replace bulb(s).
equipped)	Faulty light switch.	Check/replace light switch.
	Loose or damaged wiring.	Check wiring and connections.
	Blown fuse.	Replace fuse.
Battery will not	Bad battery cell(s).	Replace battery.
charge	Poor cable connections.	<ul> <li>Check/clean all connections.</li> </ul>
	Faulty regulator (if so equipped).	Replace regulator.
•	Faulty alternator.	Replace alternator.
Loss of drive	Freewheel control in "disen-	Place freewheel control in
	gaged" position.	"engaged" position.
	Motion drive belt worn, dam- aged or broken.	Replace motion drive belt.
	Air trapped in transmission during shipment or servicing.	Purge transmission.
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.

# **NOTES**

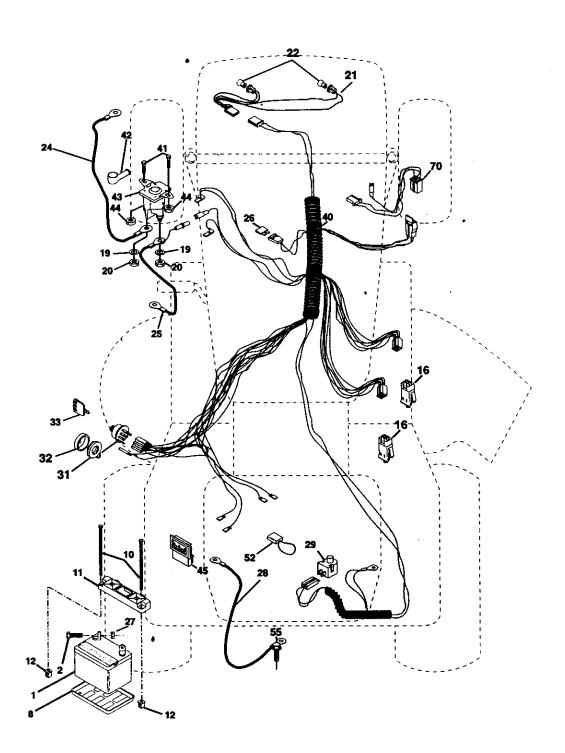
#### **SCHEMATIC**



# **REPAIR PARTS**

## TRACTOR - - MODEL NUMBER 917.270841

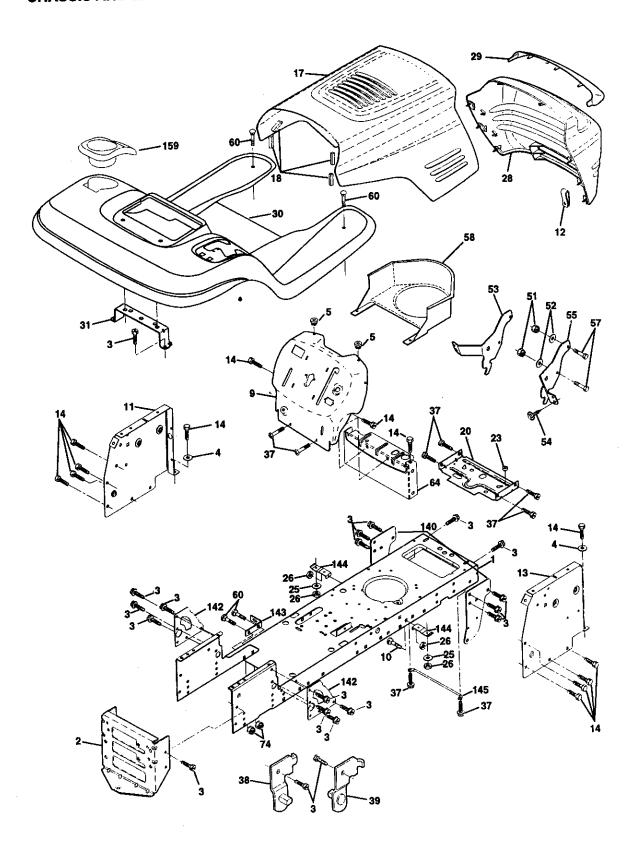
#### **ELECTRICAL**



#### **ELECTRICAL**

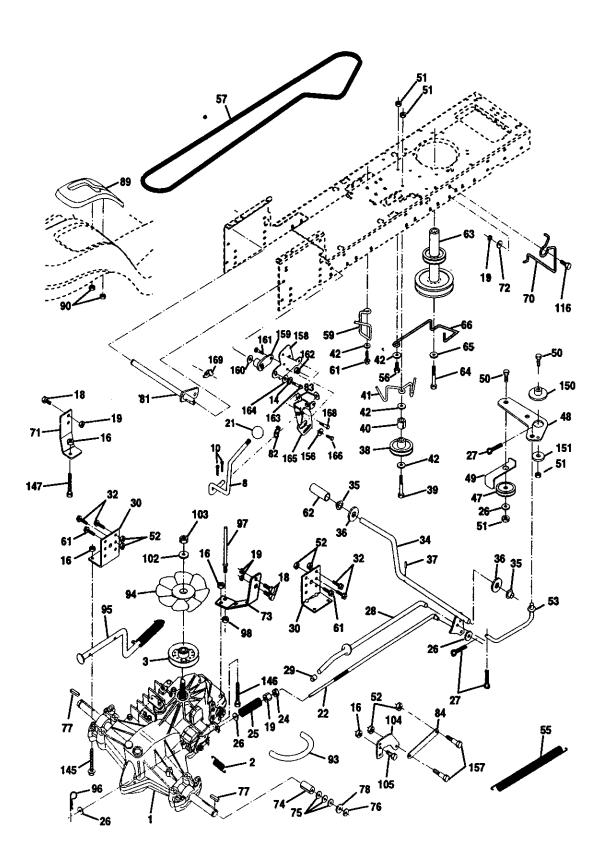
KEY	PART	
NO.	NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt, Hex 1/4-20 x 3/4
8	7603J	Tray, Battery
10	145211	Bolt, Btr Front 1/4-20 x 7-1/2
11	150109	Holddown Battery Front Mount
12	145769	Nut, Push Nylon Battery Front 1/4
16	153664	Switch Interlock Push-in
19	STD551125	Washer, Lock 1/4
20	73350400	Nut, Hex, Jam 1/4-20
21	166182	Harness, Light Socket (w/4152J)
22	4152J	Light Bulb
24	4799J	Cable, Battery
25	146148	Cable, Battery
26	166180	Fuse
27	73510400	Nut Keps Hex 1/4-20 Unc
28	145491	Cable, Ground
29	121305X	Switch, Seat
30	140301	Switch, Ignition 4 Position
31	124211X	Nut, Ignition
32	141226	Cover, Ignition Switch
33	109310X	Key, Molded, Craftsman
40		Hamess, Ignition
41	71110408	Bolt Blk Fin Hex 1/4-20 UNC x 1/2
42	131563	Cover, Terminal
43	•	Solenoid
44	73640400	Nut Keps Blk Hex 1/4-20 UNC
45	121433X	Ammeter Rectangular 6 Amp
52		Protection Wire Loop (Hour Meter)
55	17490508	Screw Thdrol 5/16-18 x 1/2
70	166658	Harness Engine B&S

# TRACTOR - - MODEL NUMBER 917.270841 CHASSIS AND ENCLOSURES



KEY NO.	PART NO.	DESCRIPTION
1	166819	Chassis
2	140356	Drawbar
3	17060612	Screw 3/8-16 x 3/4
4	STD551025	Washer 13/32 x 3/4 x 16 Gauge
5	155272	Bumper Hood/Dash
9	165454X013	Dash, Silkscreened
10	STD533710	Bolt, Carriage 3/8-16 x 1
11	155927	Panel, Dash, LH
12	145660	Clip Tinnerman Grille P/L
13	169118	Panel, Dash, RH
14	17490608	Screw, Thd., Roll. 3/8-16 x 1/2 Type TT
17	144983X558	Hood Assembly
18	126938X	Bumber Hood
20	156457	Plate Mtg Battery Fuel Tank
23	124028X	Bushing, Snap, Nylon, Fuel Line
25	19131312	Washer 13/32 x 13/16 x 12 Gauge
26	STD541437	Locknut, Hex, with Insert 3/8-16 UNC
28	156725X558	Grille/Lens Asm
29	155217X599	Lens, Grille
30	154791X558	Fender/Footrest
31	139976	Bracket, Fender/Support
37	17490508	Screw, Thdrol. 5/16-18 x 1/2 TYT
38	139886	Pivot Bracket Assembly, LH, Mower, Rear
39	139887	Pivot Bracket Assembly, RH, Mower, Rear
51	73800400	Nut Lock W/Insert 1/4 - 20 UNC
52		Washer 9/32 X 7/8 X 16 Ga.
53		Bracket Grille Pickoff LH
54		Screw, Hex Wshd #8-18 x 7/8
55		Bracket Grille Pickoff RH
57	=	Bolt FinHex 1/4 -20 UNC X.75
58		Air Duct P/L 18HP B&S Opp. Twin
60		Bolt Ridhd Sqnk 3/8-16 UNC x 3/4
64		Dash Lower STLT
74		Nut Crownlock 3/8-16 UNC
140		Bracket Suspension Front
142		Plate Reinforcement STLT
143		Bracket Swaybar Chassis
144		Bracket Footrest STLT
145		Rod Pivot Chassis/Hood
159	155123X428	Cupholder Stit Black

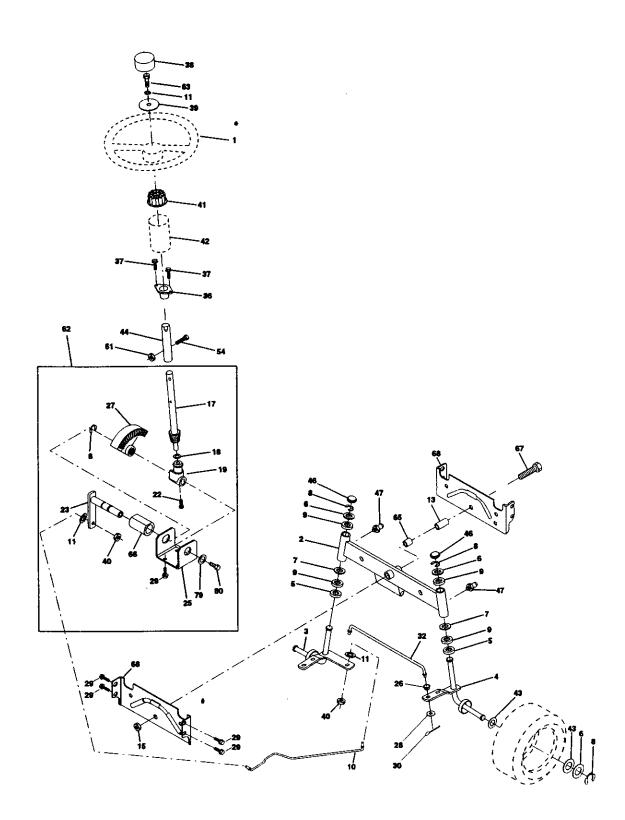
# **GROUND DRIVE**



#### **GROUND DRIVE**

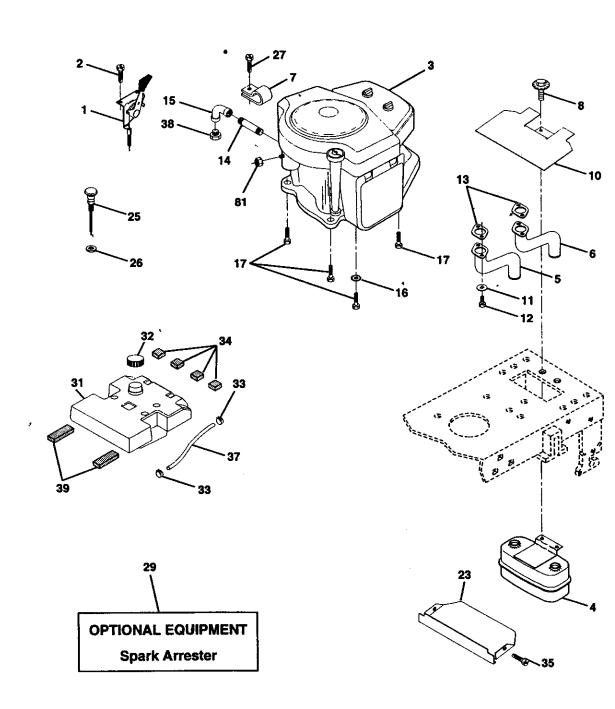
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle (See Breakdown)	72	19132012	Washer 13/32 x 1-1/4 x 12 Ga.
		Hydro Gr 319-0650	73	156347	Strap Torque Rh Hydro 0650
2	142431	Spring, Return, Brake	74	121199X	Spacer, Split
3	143995	Pulley, Transaxle	75	121749X	Washer 25/32 x 1-1/4 x 16
8	165866	Rod Shift Fender Adjust			Gauge
10	STD561210	Pin Cotter 1/8 x 1 CAD	76	STD581075	E-Ring
14	10040400	Washer Lock Hvy Helical	77	123583X	Key, Square
16	STD541431	Nut Lock Hex W/Ins. 5/16-18 Unc	78	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
18	STD523710	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	81	165591	Shaft Asm Cross Tapered 650 20
19	STD541437	Nut Lock Hex W/Wsh 3/8-16	82	165711	Spring Torsion
	400504	Unc	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
21	130564	Knob, Deluxe 1/2-13	84	165815	Link Transaxle 0650 LT/YT/STL
22	145627	Rod, Brake Hydro	89	164890X428	Console, Shift
24	73350600	Nut, Hex Jam 3/8-16 Unc	90	124346X	Nut Self-Thd Wsh-hd 1/4 Zinc
25	106888X	Spring, Brake Rod	93	142564	Line Fuel Hydro 4"
26	STD551037	Washer	94	140462	Fan, Hydro 7"
27	STD561210	Pin Cotter 1/8 x 3/4 CAD.	95	167696	Control Bypass Hydro
28 29	145204	Rod, Parking Brake	96	4497H	Retainer Spring 1" Zinc/Cad
30	124236X 130807	Cap, Parking Brake Bracket, Transaxle	97	140469	Keeper Bolt Rh Hydro 0750. 18/20"
32	74760512	Bolt Hex Hd 5/16-18 Unc x 3/4	98	73510600	
34	155071	Shaft, Foot Pedal	102	141322	Nut Keps Hex 3/8-16 Unc Washer Beliville .501D x
35	120183X	Bearing, Nylon	102	141022	1.50D
36	19211616	Washer	103	73940800	Nut Hex Jam Toplock 1/4-20
37	1572H	Pin, Roll			Unf
38	131494	Pulley, Idler, Flat	104	140156	Arm, Control Hydro
39	STD523727	Bolt	105	71070516	Screw Cap Hex 5/16 x 18 x 1
40	4470J	Spacer, Split	116	72110610	Bolt Carr. 3/8-16 x 1.25
41	165838	Keeper, Belt Idler	145	74490540	Bolt Hex Fighd 5/16-18 Gr. 5
42	19131312	Washer 13/32 x 13/16 x 12	146	74490536	Bolt Hex Flghd 5/16-18 x 2-1/4
		Gauge	147	74490524	Bolt Hex Fighd 5/16-18 x 1-1/2
47	127783	Pulley, Idler, V-Groove	150	165850	Bushing Bellcrank Grd Drive
48	154407	Bellcrank Clutch Grnd Drv STL	151	19133210	Washer 13/32 x 2 x 10 Ga.
49	123205X	Retainer, Belt	156	166002	Washer Srrted 5/16ID x 1.125
50	STD523715	Bolt	157	153236	Bolt Shoulder 5/16-18 Unc - 2A
51	STD541437	Nut Crownlock 3/8-16 UNC	158	165589	Bracket Shift Mount
52	STD541431	Nut, Crownlock 5/16-18 Unc	159	165494	Hub Tappered Flange Shift Lt
53	105710X	Link, Clutch	160	19292016	Washer 29/32 x 1-1/4 x 16 Ga
55	105709X	Spring, Return, Clutch	161	72140406	Bolt Rothd Sqnk 1/4-20 x 3/4 Gr 5
56	STD523712	Bolt Hex 3/8-16 x 1-1/4	162	73680400	Nut Crownlock1/4-20 Unc
57	140294	V-Belt, Ground Drive	163	74780416	Bolt Hex Fin 1/4-20 Unc x 1 Gr
-59	140312	Keeper, Center Span	103	74700410	5
61	17060612	Screw 3/8-16 x 3/4	164	19091010	Washer 5/8 x .281 x 10 Ga
62	8883R	Cover, Pedal	165	165623	Bracket Pivot Lever
63	140186	Pulley, Engine	166	166880	Screw 5/16-18 x 5/8
64	164975	Bolt Hex 7/16-20 x 4 Gr. 5	168	165492	Bolt Shoulder 5/16-18 x .561
65	STD551143	Washer	169	165580	Plate Fastening Lt
66	154778	Keeper Belt Engine Hydro			· ·
70 71	134683	Guide Belt RH Engine	NOTE:	All component	dimensions given in U.S. inches
71	140158	Strap Torque Lh Hydro 18/20" T		nch = 25.4 mm	•

# TRACTOR - - MODEL NUMBER 917.270841 STEERING ASSEMBLY



# TRACTOR - - MODEL NUMBER 917.270841 STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	139768	Steering Wheel
2	154427 *	Front Axle Assembly
3	156483	Spindle Assembly, L.H.
4	157473	Spindle Assembly, R.H.
5	6266H	Bearing, Race, Thrust, Hardened
6	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
7	19272016	Washer 27/32 x 1-1/4 x 16 Gauge
8	12000029	Ring, Klip
9	3366R	Bearing, Steering Column
10	156438	Link, Drag
11	STD551137	Washer, Lock
13	154779	Spacer, Bearing, Front Axle
15	73901000	Nut, Lock, Flange 5/8-11 UNC
17	156546	Shaft Assembly, Steering
18	57079	Washer, Thrust .515 x .750 x .033
19	160395	Support, Shaft
22	165857	Screw hex Wshhd Torx
23	165851	Pittman Shaft Assembly
25	154406	Bracket, Steering
26	126847X	Bushing, Link, Drag
27	136874 19131416	Gear, Sector Washer 13/32 x 7/8 x 16 Gauge
28 29	17060612	Screw 3/8-16 x 3/4
30	STD561210	Pin
32	130465	Rod, Tie
36	155099	Bushing, Steering
37	152927	Screw TT #10-32 x 5 x 3/8 Flange
38	139769	Insert, Steering Wheel
39	19133812	Washer 13/32 x 2-3/8 x 12 Gauge
40	STD541537	Gripco Nut
41	100711L	Adaptor, Steering Wheel
42	145054X428	Boot, Steering Dash P/L Mtl Bik
43	121749X	Washer 25/32 x 1-1/4 x 16 Gauge
44	153720	Extension Steering Non-Adjust
46	121232X	Cap, Spindle
47	6855M	Fitting, Grease
51	73800500	Nut Lock Hx W/Ins 5/16-18 UNC
54	74780520	Bolt Fin Hex 5/16-18 UNC x 1-1/4
62	167902	Kit, Steering Assembly, Service
63	74780616	Bolt Fin Hex 3/8-16 unc. x 1 Gr. 5
65	154780	Spacer Axle
66	154404	Bearing Arm Pittman
67	74781044	Bolt Fin Hex 5/8-11unc x 2-3/4
68	154429	Brace Axle
79	19132012	Washer 13/32 x 1-1/4 x 12 Ga
80	74950612	Bolt Hex Nylon 3/8-16 x 3/4



#### **ENGINE**

KEY NO.	PART NO.	DESCRIPTION
1	162152	Control Throt Paddie 32 22
2	17720410	Screw Hex Thd Cut 1/4-20x5/8 T
3		Engine (See Breakdown) Briggs Model No. 461707-0145-E1
4	149723	Muffler Exhaust
5	144069	Exhaust Asm. Left
6	144068	Exhaust Asm. Right
7	138129	Clamp Tube Double Engine
8	150176	Bolt 5/16 - 18 UNC X 3/4 W/Sems
10	145552	Heat Shield Lt
11	STD551125	Washer Lock Hvy. Helical 1/4
12	STD522507	Bolt Fin Hex 1/4-20 x 3/4
13	165287	Gasket Muffler
14	13280336	Nipple Pipe 4-1/2" `
15	13200300	Elbow Std 90 Degree 3/8-18 Npt
16	STD551237	Washer Lock Ext Tooth 3/8
· 17	17490624	Screw Thdrol 3/8-16x1-1/2 Tytt
23	159880	Shield Browning/Debris Guard
25	145996	Control Choke
26	73920600	Nut Keps 3/8-24 Unf
27	152927	Screw TT #10-32 x 5 x 3/8 Flange
29	137180	Arrestor Spark
31	157103	Tank Fuel 3 50 Rear
32	161696	Cap Fuel Guage STLT
33	123487X	Clamp Hose Blk
34	106082X	Spacer Pad
35	17060512	Screw 5/16-18 x 3/4
37	8543R	Line Fuel
38	• • • • • • •	Plug Oil Drain (See Engine Breakdown)
39	109227X	Pad Idler 1.75 x .75 x .06
81	128861	Nut, Flange 1/4-20 Starter Nut

#### **SEAT ASSEMBLY**

11

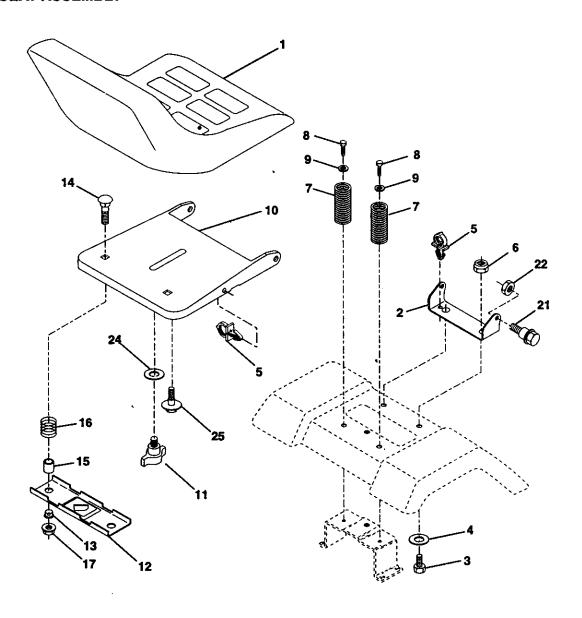
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166369

121246X

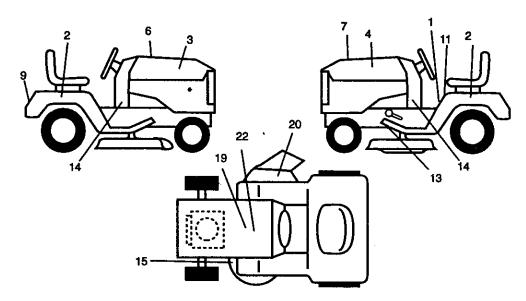
Knob Seat

**Bracket Pnt Mounting Switch** 



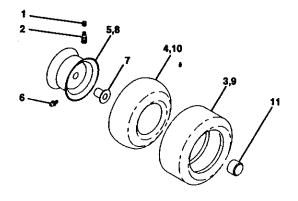
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140123	Seat 3450 Blk/blk Craftsman	13	121248X	Bushing Snap Blk Nyl 50 ld
2	140551	Bracket Pnt Pivot Seat (blk )	14	72050412	Bolt Rdhd Sht Nk 1/4-20x1-1/2
3	74760616	Bolt Fin Hex 3/8-16unc X 1	15	134300	Spacer Split 28 X 96 Zinc
4	19131610	Washer 13/32 X 3/4 X 10 Ga	16	121250X	Spring Cprsn 1 27 Blk Pnt
5	145006	Clip Push In Hinged	17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
6	STD541437	Nut Hex Lock w/lns 3/8-16 Unc	21	153236	Bolt Shoulder 5/16-18 Unc-2A
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	22	STD541431	Nut Hex Lock w/lns 5/16-18
8	17060616	Screw 3/8-16 X 1-1/2	24	19171912	Washer 17/32 X 1-3/16 X 12 Ga.
9	19131614	Washer 13/32 X 1 X 14 Ga	25	127018X	Bolt Shoulder 5/16-18 X 62
10	155925	Pan Pnt Seat (blk )			

## **DECALS**



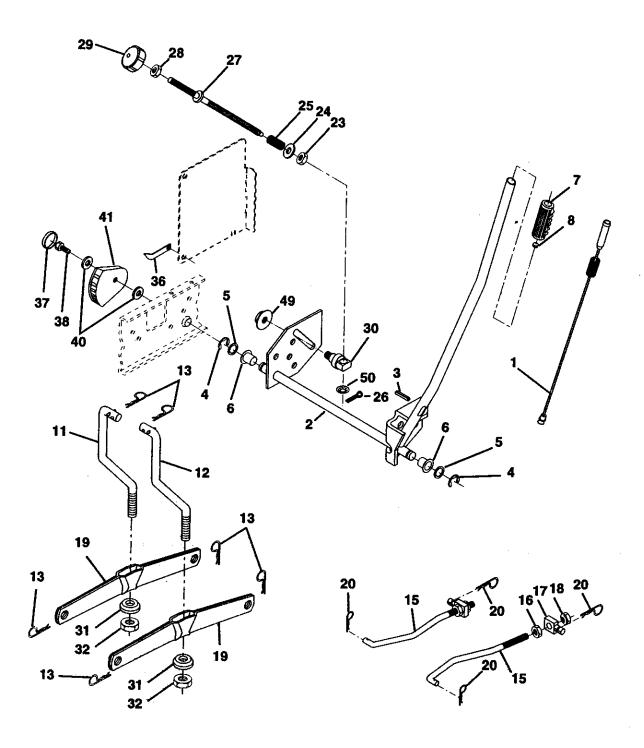
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	156439	Decal Fender Danger Sears	14	166927	Decal Dash Panel
2	163205	Decal Fend Auto Sears Gold	15	160396	Decal Mower Drive Schematic
3	163200	Decal Hood Rh Craftsman	19	138047	Decal, Battery Diehard Sears
4	163202	Decal Hood Lh Craftsman	20	166887	Decal Deck Mower EZ3
6	133644	Decal Maint Customer Sears Dom	22	149516	Decal Battery
7	169637	Decal Replacement Srs		169210 138311	Decal By Pass Lt Hydro Decal Lift Handle
9	163204	Decal Fender Craftsman Gold		154515	Pad Footrest Lh STLT
11	156811	Decal Fender STLTH Oper Inst E/S		154516	Pad Footrest Rh STLT
13	146046	Decal V-beit Dr Sch Tractor E		169590 169591	Manual, Owner's (English) Manual, Owner's (Spanish)

#### **WHEELS & TIRES**



	•	
KEY NO.	PART NO.	DESCRIPTION
1	59192	Valve Cap, Tire
2	65139	Stem, Valve
3	106222X	Tire, Front
4	59904	Tube, Front Tire
		(Not Provided, Service Item Only)
5	106732X427	Rim, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear Tire
		(Not Provided, Service Item Only)
11	104757X	Cap, Axle
	144334	Sealant, Tire (10 oz. Tube)

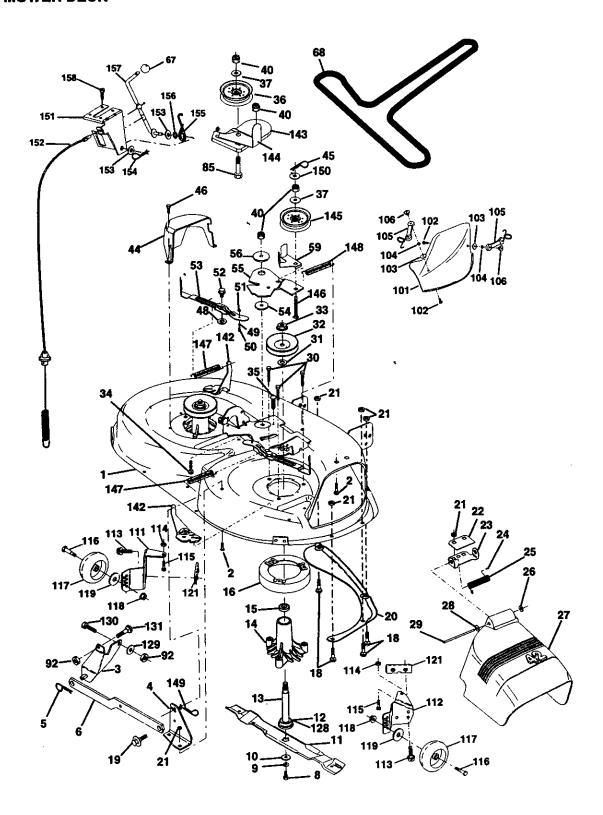
## LIFT ASSEMBLY



#### LIFT ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	159460	Lift Lever Inner Wire Asm.
2	159471	Shaft Asm. Lift
3	105767X	Pin Groove
4	12000002	E Ring
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylong
7	125631X	Grip Handle Fluted
8	122365X	Button Plunger Read
11	139865	Link Asm Lift L.H.
12	139866	Link Asm Lift R.H.
13	STD624008	Retainer Spring
15	127218	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc ,
18	73680800	Nut Lock W/Wsh 1/2-13 Unc
19	139868	Arm Suspension Mower
20	163552	Retainer Spring
23	110807X	Nut, Special
24	19131016	Washer 13/32 x 5/8 x 16 Ga.
25	2876H	Spring
26	76020308	Pin, Cotter 3/32 x 1/2
27	126971X	Rod, Adjust Life
28	73350600	Nut, Hex Jam 3/8-16 UNC
29	138057	Knob, Infinite Height Admustment
30	150233	Trunnion, Inf. Height
31	140302	Bearing, Pvt. Lift. Spherical
32	73540600	Nut Crownlock 3/8-24
36	155097	Pointer Height Indicator
37	123935X	Plug Hole Blk 1.485/1.515 Dia
38	17060512	Screw 5/16-18 x 3/4
40	19112410	Washer 11/32 x 1-1/2 x 10 Ga
41	155098	Indicator Height Stlt
49	145212	Nut, Hex Flange Lock
50	110452X	Nut, Push Phos. & Oil

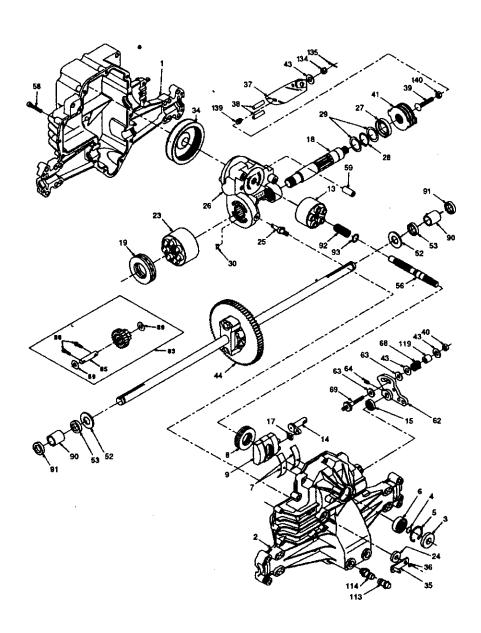
#### **MOWER DECK**



#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	165892	Mower Housing	68	144959	V-Belt
2	STD533107	Bolt	85	72140620	Bolt Carriage 3/8-16 x 2-1/2
3	138017	Bracket Assembly, Sway Bar, Front	92	STD541437	Locknut, Hex W/Wsh 3/8-16 UNC
4	165460	Bracket Sway Bar 38/42*	101	136420	Cover Mulching 42" Black
5	STD624008	Retainer Spring	102	71161010	Screw Truss Hd Phil10-24 x5/8
6	130832	Arm, Suspension, Rear	103	19061216	Washer #10
8	850857	Bolt, Hex 3/8-24 x 1.25 Gr. 8	104	STD551110	Washer Lock
9	STD551137	Washer, Lock	105	160793	Latch Asm Bagger
10	140296	Washer, Hardened	106	2029J	Nut Weld
11	134149	Blade, Mulching	111	155197	Bracket Gauge, Wheel LH
12	129895	Bearing, Ball	112	155198	Bracket, Gauge, Wheel RH
13	137645	Shaft Assembly, Mandrel,	113	17060512	Screw 5/16-18 x 3/4
14	100774	Vented (Incl. Key Number 6)	114	73510500	Nut, Hex Keps 5/16-18 UNC
15	128774 110485X	Housing, Mandrel, Vented Bearing, Ball, Mandrel	115	72110504	Bolt, Carriage 5/16 UNC x 1/2
16	140329	Stripper, Vented Mower Deck	116	4898H	Bolt, Shoulder
18	72140505	Bolt, Carriage 5/16-18 x 5/8	117	165746	Wheel, Gauge
19	132827	Bolt, Shoulder	118 119	73930600 19121414	Nut, Crownlock 3/8-16 Washer 13/32 x 7/8 x 14 Ga.
20	159770	Baffle, Vortex	121	143723	Bracket
21	STD541431	Nut, Crownlock 5/16-18 UNC	128	153390	Washer Felt
22	134753	Stiffener Bracket	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
23	131267	Bracket, Deflector	130	STD523710	Bolt, Fin Hex 3/8-16 UNC x 1
24	105304X	Cap, Sleeve		OT DOLOT TO	Gr. 5
25	123713X	Spring, Torsion, Deflector	131	STD533710	Bolt Rdhd Sqnk 3/8-16 UNC x 1
26	110452X	Nut, Push	142	165890	Arm Spring Brake Mower
27	130968	Shield, Deflector	143	157109	Bracket Arm Idler 42"
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	144	158634	Keeper Belt 42" Clutch Cable
29	131491	Rod, Hinge	145	165888	Pulley Idler Flat
30	157722	Screw Thdrol Rolling Wsh Hd	146	165891	Bolt Carraige Idler
31	129963	Washer, Spacer	147	131335	Spring Extension
32	153535	Pulley, Mandrel	148	169022	Spring Return Idler
33	137266	Nut, Toplock, Flanged	149	165898	Retainer Spring Yellow Zinc
34	STD533717	Bolt	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
35	133835	Fastner, Christmas Tree	151	169670	Bracket Clutch
36 37	131494	Pulley, Idler, Flat	152	169676	Cable Clutch 42"
40	19131316 STD541437	Washer 13/32 x 13/16 x 16 Ga.	153	169674	Washer flat 3/8" Type B
44	STD541437 140088	Nut, Crownlock 3/8-16 UNC Guard, Mandrel, L.H.	154 155	169675 169671	Spring Retainer
45	STD624003	Retainer	156	169672	Spring Retention Lever Spacer
46	137729	Screw, Thd. Roll 1/4-20 x 5/8	157	100000	Rod Clutch
48	133944	Washer, Hardened	158	169669 17720410	Screw Hex Thd Cut 1/4-20 x
49	155066	Roller Assembly, Cam Follower	130	17720410	5/8
50	131340	Bolt, Shoulder #10-24 Grade 5		130794	Mandrel Assembly (Includes
51	STD541410	Locknut			Key Numbers 8-10, 12-15, 31
52	139888	Bolt, Shoulder 5/16-18 UNC			and 32)
53	131845	Arm Assembly, Pad, Brake	• •	169583	Mower Deck, Complete (Std
54	133943	Washer, Hardened			deck - order separately mulcher
55	155046	Arm, Idler			plate components key nos. 101-
56	165723	Spacer, Retainer			106)
59	141043	Guard, Tuv Idler (94)	NOTE	: All component	dimensions given in U.S.inches
67	149846	Knob Custom Oval		1 inch = 25.4 m	

# TRACTOR - - MODEL NUMBER 917.270841 HYDRO GEAR TRANSAXLE - - MODEL NUMBER 319-0650



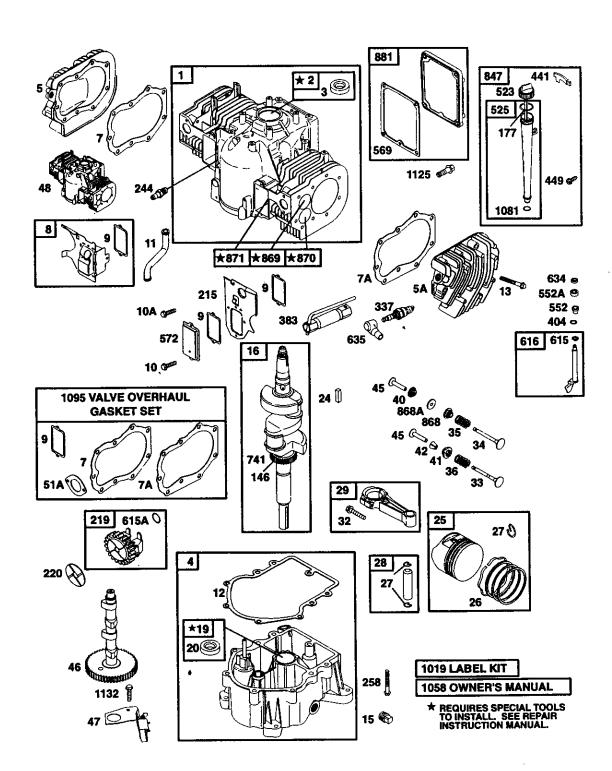
## **TRACTOR - - MODEL NUMBER 917.270841 HYDRO GEAR TRANSAXLE - - MODEL NUMBER 319-0650**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	150829	Differential Assembly
3	142932	Seal, Lip	52	142991	Washer 3/4 x 1.5 x .13
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	56	142963	Shaft, Input
6	142934	Bearing, Shaft Ball	58	142964	Bolt 1/4-20 x 1.38
7	142935	Bearing, Cradle	59	142965	Pin .5 OD x .43 ID x .750
8	150771	Bearing, Chadle Bearing, Thrust 30 x 52 x 13	62	142966	Arm, Control
9	142937	Swashplate, Variable	63	142967	Puck, Dampener
13	142938	Block, Cylinder Assembly	64	142920	Set Screw
14	142939	Arm, Trunnion	68	142969	Spring
15	142940	Seal, Lip	69	144610	Stud 5/16-24
ເວ 17	142941	Guide, Slot	83	142971	Jackshaft Assembly
18	150772	Shaft, Motor	85	150806	Jackshaft -
19	150772	Bearing, Thrust 42 x 68 x 16	88	142973	Screw, Cap
23	142944	Block, Cylinder Assembly	89	142974	Washer 7/16 x 1 x 1/2
23 24	142945	Seal, Lip 10 x 25 x 7	90	142975	Sleeve Bearing
25	142946	Actuator, Bypass	91	142976	Seal, Wiper
26	150774	Center Section Assembly Kit	92	142977	Spring, Block
20 27	142948	Seal, Lip 26 x 42 x 8	93	142978	Washer, Block Thrust
28	142949	Ring, Retaining	113	142917	Cap, Vent Assembly
29	142950	Washer 26 x 35 x 1	114	142918	Fitting, O-Ring Assembly
30	150787	Plate, Bypass	119	142980	Spacer
34	142951	Oil Filter Element	134	144607	Nut, Castle 5/16-24
35	142952	Arm, Bypass	135	144608	Pin, Cotter
36	142953	Ring, Retaining	139	150775	Spring, Compression
37	142954	Arm, Actuating	140	150776	Nut, Hex 5/16-24
38	142955	Pin, Actuating			·
39	150777	Bolt 5/16-24 x 1-3/4	NOTE	: All compone	ent dimensions given in U.S. inches
40	150778	Locknut, Hex 5/16-24 UNJC		1 inch = 25.4	‡ mm
44	130776	Dela Bereither Mi		•	

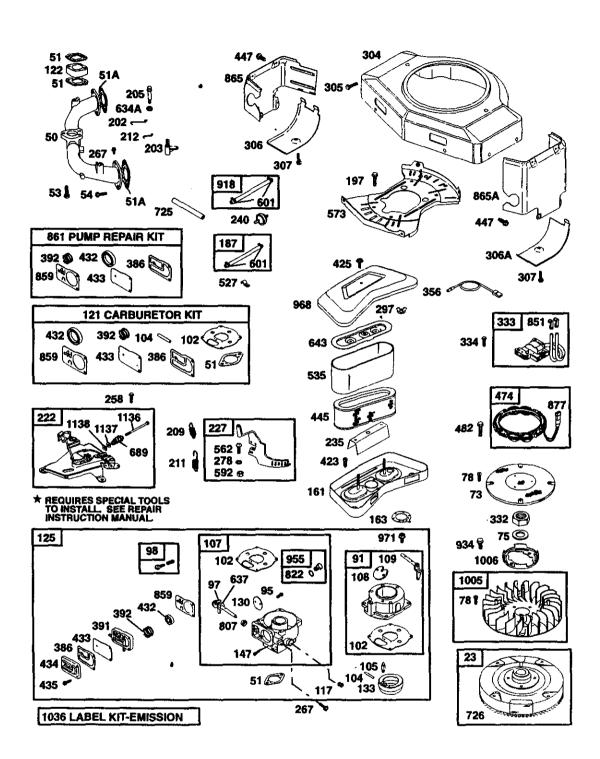
40 150778 41 142958

Brake Rotor/Stator Kit

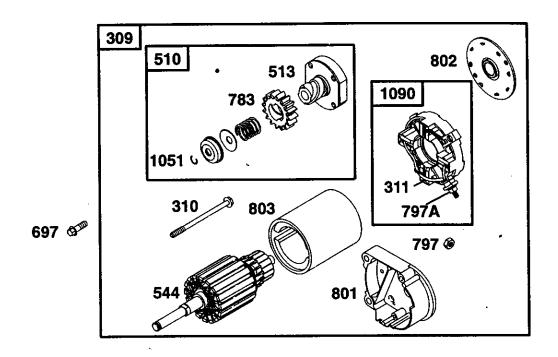
# TRACTOR - - MODEL NUMBER 917.270841 BRIGGS & STRATTON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-E1

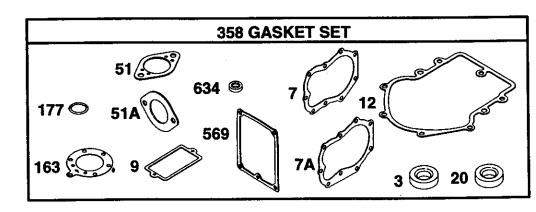


# TRACTOR - - MODEL NUMBER 917.270841 BRIGGS & STRATTON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-E1



# TRACTOR - - MODEL NUMBER 917.270841 BRIGGS & STRATTON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-E1





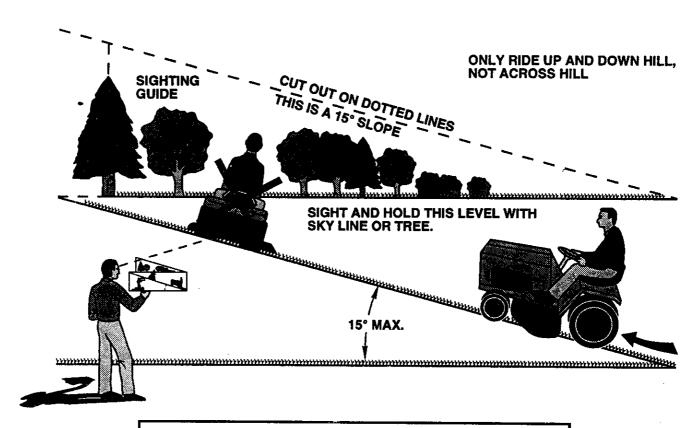
## BRIGGS & STRATTON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-

_						•	
KEY NO.	PART NO.	DI	ESCRIPTION	KEY NO.	PART NO.	D	ESCRIPTION
1	498583		Cylinder Assembly	91	693483		Body Assembly-Upper
2	399265		Bushing/Seal Kit	95	690718		Screw (Throttle Valve)
3	91086		Seal-Oil	97	693485		Shaft-Throttle
4	493304		Sump-Engine	98	807923	_	Kit-Idle Speed
5	214517		Head-Cylinder #1	102	693509	•	Gasket-Carburetor Body
5A 7	214518 271867		Head-Cylinder #2 Gasket-Cylinder Head #1	104 105	693506 692078	_	Pin-Float Hinge Valve-Float Needle
7A	271868		Gasket-Cylinder Head #2	103	693482	•	Body Assembly-Lower
8	495754	×	Breather Assembly (Cylinder	108	693505		Valve-Choke
·	400104		#1)	109	693498		Shaft-Choke
9	27803	*	Gasket-Breather	117	693538		Jet-Main
10	94382		Screw (Breather Assembly)		693500		Jet-Main (High Altitude)
10A	94380		Screw (Breather Cover)	121	491539		Carburetor Kit
11	280225		Tube-Breather	122	281411		Spacer
	273390	*	Gasket-Crankcase (.015" Thick,	125	693479		Carburetor
	074400		Std.)	130	693504		Valve-Throttle
	271188 271189		Gasket-Crankcase (.005" Thick) Gasket-Crankcase (.009" Thick)	133	693512		Float-Carburetor
13	94565	×	Screw (Cylinder Head)	146	94196		Key-Timing
15	94239		Plug-Oil Drain	147	693508		Jet-Pilot
16	690666		Crankshaft	161 163	496599 271411		Base-Air Cleaner Gasket-Air Cleaner
19	399264		Bushing	177	271411		Seal-O-Ring
20	291675	*	Seal-Oil	187	299146		Line-Fuel (Cut to Required
23	491180		Flywheel		2.00170		Length)
24	222698		Key-Flywheel	197	95063		Screw (Back Plate)
25	499180	4	Piston Assembly (Standard)	202	262683		Link-Mechanical Governor
	499181		Piston Assembly (.010 "O.S.)	203	280997		Crank-Bell
	499182		Piston Assembly (.020" O.S.)	205	93971		Screw (Bell Crank)
	499183		Piston Assembly (.030" O.S.)	209	262352		Spring-Governor
26	499184		Ring Set, Piston (Standard)	211	261563		Spring-Governor
	499285		Ring Set, Piston (.010 "O.S.)	212	693985		Link-Throttle
	499186 499187		Ring Set, Piston (.020 "O.S.) Ring Set, Piston (.030 "O.S.)	215	224816		Guide-Air
27	263129		Lock-Piston Pin	219 220	394348 222773		Gear-Governor Washer-Thrust (Governor Ge:
28	498319		Pin Assembly, Piston (Std.)	222	491282		Bracket-Control
	498320		Pin Assembly-Piston (.005"	227	491297		Lever-Governor
			O.S.)	235	224995		Shield-Fuel Spray
29	498314		Rod-Connecting (Standard)	240	394358		Filter-Fuel
	498541		Rod-Connecting (.020 U.S.)	244	230318		Connector-Hose (Pulse Line)
32	95017		Screw (Connecting Rod)	258	94930		Screw (Engine Sump)
33	390420		Valve-Exhaust (Include(s):	267	93897		Screw (Casing Clamp)
04	494553		Keeper-Valve (Ref. No. 42))	278	94942		Washer (Governor Lever)
34	691302		Valve-Intake	297	94289		Nut-Wing (Air Filter Retainer)
35 36	65906 26828		Spring-Valve (Intake) Spring-Valve (Exhaust)	304	691390		Housing-Blower
40	221596		Retainer-Valve (Exhaust)	305	690960		Screw (Blower Housing)
41	292260		Retainer-Valve (Exhaust)	306 306A	222846 223734		Shield-Cylinder Shield-Cylinder
42	494553		Keeper-Valve	307	94930		Screw (Cylinder Shield)
45	261368		Tappet-Valve	309	497596		Motor-Starter
46	214487		Camshaft	310	94003		Bolt (Starter Motor)
47	393415		Slinger-Oil	311	497608		Brush Set
48	498542		Short Block	332	230674		Nut (Flywheel)
50	213290		Manifold-Intake	333	394891		Armature-Magneto
51	271412		Gasket-Intake	334	94731		Screw (Magneto Armature)
51A	270884	**	Gasket-Intake	337	802592		Plug-Spark
53	93970		Screw (Carburetor)	356	494705		Wire-Stop
54 73	93208		Screw (Intake Manifold)	358	495868		Gasket Set
73 75	691438 222511		Screen-Rotating Washer (Flywheel)	383	89838	_	Wrench-Spark Plug
73 78	691134		Screw (Flywheel Fan)	386	693490	•	- Gasket-Pump Body-Pump
.5	00 1 to 1		and the symmetry way	391	693487		Body-Funip

# BRIGGS & STRATTON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-E1

BRIGGS & STRAITON ENGINE-MODEL NUMBER 461707, TYPE NUMBER 0145-E1					
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
392	693491	●+ Spring-Pump Diaphragm	871	261961	Bushing-Guide (Exhaust)
404	223882	Washer (Governor Crank)		231218	Bushing-Guide (Intake)
423	94674	Screw (Air Cleaner Base)	877	393456	Wire-Alternator
425	94823	Screw (Air Cleaner Cover)	881	495901	Plate-Cover
432	693492	<ul><li>+ Cap-Spring</li></ul>	918	393815	Hose-Vacuum (Cylinder-To-
433	693489	<ul> <li>Diaphragm-Fuel Pump</li> </ul>			Impulse Pump)(Cut to Required
434	693493	Cover-Diaphragm			Length)
435	693494	Screw (Diaphragm Cover)	934	94627	Screw (Fan Retainer)
441	222875	Bracket-Oil Fill .	955	693513	Plug-Carburetor
445	394019	Filter-Air	968	225008	Cover-Air Cleaner
447	93343	Screw (Air Guide Cover)	971	805540	Screw (Upper Body To Lower
449	94882	Screw (Oil Fill Bracket)	1005	498157	Body)
474	93474	Alternator	1005	224901	Fan-Flywheel Retainer-Fan
482	93621	Screw (Alternator)	1019	496726	Label Kit
510	497606	Drive-Starter	1036	499382	Label Kit-Emission
513 523	398003	Clutch-Drive	1051	263080	Ring-Retaining
525 525	494947 495348	Dipstick Tube-Oil Fill	1058	273688	Owner's Manual
525 527	223167	Clamp-Tube	1081	280860	★ Seal-O-Ring
535	272490	Filter-Air	1090	497605	Retainer-Brush
544	97603	Armature-Starter	1095	498047	Gasket Set-Valve Overhaul
552	262332	Bushing (Governor Crank)	1125	94724	Screw (Cover Plate)
552A	262331	Bushing (Governor Crank)	1132	94675 '	Screw (Oil Slinger)
562	93853	Bolt-Carriage (Governor Lever)	1136	94297	Screw (Governor, Control Rod)
569	272645	★ Gasket-Base	1137	220680	Washer (Governor, Control
572	222892	Cover-Breather (Cylinder #2)			Rod)
573	491304	Plate-Back	1138	94298	Nut (Governor, Control Rod
592	92278	Nut (Governor Lever)		460707-01	145-E1Replacement Engine
601	95162	Clamp-Hose		1	
615	94296	Retainer (Governor Crank)	*		Gasket Set, Ref Number 358.
615A	93898	Retainer-Governor Shaft	•		Carburetor Kit, Ref Number 121.
616	491530	Crank-Governor	•	incinded it	1 Value Overhaul Kit, Ref Number 1095.
634	491287	★ Seal-Governor Shaft	+	Included in	n Fuel Pump Kit, Ref Number 861
634A	271013	Washer-Foam	•	* <b>●</b> ◆+	True rump rat, her rumber 601
635	66538	Boot-Spark Plug	NOTE:		nent dimensions given in U.S. inches
637	693510	Washer-Seal		1 inch = 2	
643	496700	Retainer-Air Filter			
689 697	262337	Spring-Friction			
	93585	Screw (Drive Cap)			
725 726	280866 91362	Shield-Heat Gear-Ring			
741	262989	Gear-Timing			
783	693059	Gear-Starter			
797	94010	Nut (Starter Terminal)			
797A	693167	Nut (Starter Terminal)			
801	394860	Cap-Drive			
802	497607	Cap-End			
803	497604	Housing-Starter			
807	693511	Spacer			
822	693497	Washer-Seal (Throttle Shaft)			
847	495715	Dipstick/Tube Assembly			
851	493880	Terminal-Cable			
859	693488	<ul><li>+ Diaphragm-Fuel Pump</li></ul>			
861	393397	Kit-Fuel Pump			
865	224774	Cover-Air Guide			
865A	224775	Cover-Air Guide			
868	497656	Seal-Valve			
868A	273312	Seal-Valve			
869 870	261463	Seat-Valve (Intake)			
870	262924	Seat-Valve (Exhaust)			
		-	•		

# 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.

For in-home major brand repair service: Call 24 hours a day, 7 days a week

1-800-4-MY-HOME<sup>SM</sup> (1-800-469-4663)

Para pedir servicio de reparación a domicilio
1-800-676-5811

In Canada for all your service and parts needs call Au Canada pour tout le service ou les pièces 1-800-665-4455

For the repair or replacement parts you need:
Call 6 am-11pm CST, 7 days a week
PartsDirect<sup>SM</sup>
1-800-366-PART (1-800-366-7278)

Para ordenar piezas con entrega a domicilio 1-800-659-7084

For the location of a Sears Parts and Repair Center in your area:

Call 24 Hours a day, 7 days a week 1-800-488-1222

For information on purchasing a Sears Maintenance Agreement or to inquire about an existing Agreement:

Call 9 am-5 pm, Monday - Saturday 1-800-827-6655



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