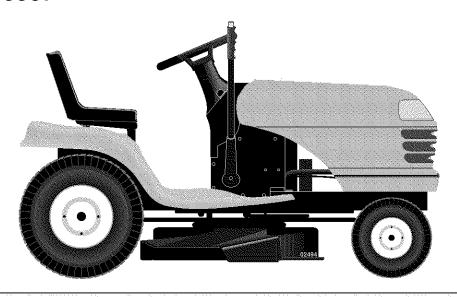
## Owner's Manual

# **CRAFTZMAN®**

# **LAWN TRACTOR**

18.0 HP, 42" Mower Electric Start 6 Speed Transaxle

Model No. **917.273397** 





This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

### **IMPORTANT:**

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 U.S.A.

Visit our Craftsman website:www.sears.com/craftsman

### TABLE OF CONTENTS

Warranty2	Maintenance1	17
Safety Rules3	Service and Adjustments	21
Product Specifications6	Storage	27
Assembly/Pre-Operation8	Troubleshooting2	39
Operation11	Repair Parts	32
Maintenance Schedule17	Sears ServiceBack Cov	ei

#### WARRANTY

#### LIMITED 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 that are found to be defective in material or workmanship according to the guidelines of coverage listed below. Sears will also provide free labor for these applicable warranted parts for the two full years. During the first 30 days of purchase, there will be no charges to service the product at your home for issues covered by this warranty. (See exclusions below). For your convenience, IN HOME warranty service will still be available after the first 30 days of purchase, but a trip charge will apply. This charge will be waived if the Craftsman product is dropped off at an authorized Sears location. For the nearest authorized Sears location, please call 1-800-4-MY-HOME®. This warranty applies only while this product is within the United States.

This Warranty does not cover:

- Expendable items which become worn during normal use, including but not limited to blades, spark plugs, air cleaners, belts, and oil filters.
   Standard Maintenance Servicing, oil changes, or tune-ups
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, including but not limited to, damage caused by towing objects beyond the capability of the riding equipment, impacting objects that bend the frame or crankshaft, or over-speeding the engine.
- Repairs necessary because of operator negligence, including but not limited to, electrical and mechanical damage caused by improper storage, failure to use the proper grade and amount of engine oil, failure to keep the deck clear of flammable debris, or failure to maintain the equipment according to the instructions contained in the owner's manual.
- Engine (fuel system) cleaning or repairs caused by fuel determined to be contaminated or oxidized (stale). In general, fuel should be used within 30 days of its purchase date.
- Normal deterioration and wear of the exterior finishes, or product label replacement.
   Riding equipment used for commercial or rental purposes.

#### LIMITED 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. During the first 30 days of purchase, there will be no charges to replace the battery at your HOME. After the first 30 days, for your convenience, IN-HOME warranty service will still be available but a trip charge will apply. This charge will be waived if the Craftsman product is dropped off at an authorized Sears location. For the nearest authorized Sears location, please call 1-800-4-MY-HOME®.

This battery warranty applies only while this product is within the United States.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.

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

### **SAFETY RULES**

**IMPORTANT:** This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

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

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

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

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

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

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.

- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause buildup to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

#### II. SLOPE OPERATION

Slopes are a major factor related to 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.

### SAFETY RULES

#### DO:

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

#### DO NOT:

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

#### III. CHILDREN

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

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.

- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

#### IV. SERVICE

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

### **SAFETY RULES**











- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers or children even with the blades off.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.

- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

#### PRODUCT SPECIFICATIONS

Gasoline Capacity	1 25 Unlead	<del>l</del> ed
and Type:	Regular	ucu
Oil Type	SAE 30 (ab	ove 32°F)
(API-SG-SL):		(below 32°F)
Oil Capacity:	W/Filter 3.5	
	W/O Filter 3	3.0 Pints
Spark Plug: (Gap: .030")	Champion I	RC12YC
Ground Speed	Forward:	
(MPH):	1st	1.1
,	2nd	1.4
	3rd	2.2
		3.3
	5th	
	•	4.9
	Reverse:	1.4
Tire Pressure:	Front:	14 PSI
	Rear:	12 PSI
Charging System:	9 Amps @	3600 RPM
Battery:		28
	Min. CCA:	
	Case Size:	U1R
Blade Bolt Torque	: 27-35 Ft. L	bs.

**CONGRATULATIONS** on your purchase of a new tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance. Should you experience any problem you cannot easily remedy, please contact a Sears or other qualified service center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

#### **CUSTOMER RESPONSIBILITIES**

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "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 service center (See REPAIR PARTS section of this manual).

# REPAIR PROTECTION AGREEMENTS

hassle and expense.

Congratulations on making a smart purchase. Your new Craftsman® product is designed and manufactured for years of dependable operation. But like all products, it may require repair from time to time. That's when having a Repair Protection Agreement can save you money and aggravation. Purchase a Repair Protection Agreement now and protect yourself from unexpected

Here's what's included in the Agreement:

- Expert service by our 12,000 profesional repair specialists.
- Unlimited service and no charge for parts and labor on all covered repairs.
- Product replacement if your covered product can't be fixed.
- Discount of 10% from regular price of service and service-related parts not covered by the agreement; also, 10% off regular price of preventive maintenance check.
- Fast help by phone phone support from a Sears technician on products requiring in-home repair, plus convenient repair scheduling.

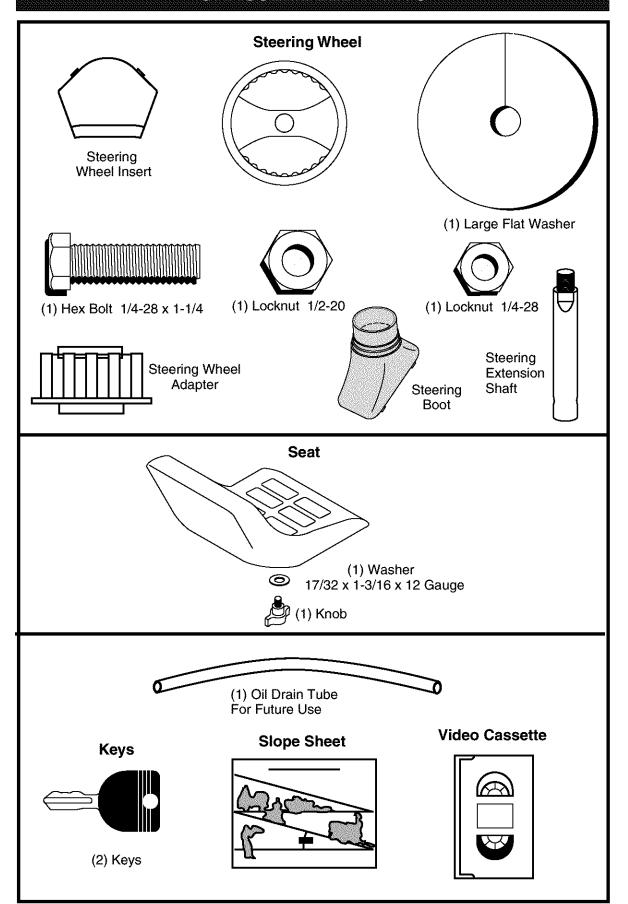
Once you purchase the Agreement, a simple phone call is all that it takes for you to schedule service. You can call anytime day or night, or schedule a service appointment online.

Sears has over 12,000 professional repair specialists, who have access to over 4.5 million quality parts and accessories. That's the kind of professionalism you can count on to help prolong the life of your new purchase for years to come. Purchase your Repair Protection Agreement today! Some limitations and exclusions apply. For prices and additional information call 1-800-827-6655.

#### **SEARS INSTALLATION SERVICE**

For Sears professional installation of home appliances, garage door openers, water heaters, and other major home items, in the U.S.A. call **1-800-4-MY-HOME®** 

### **UNASSEMBLED PARTS**



### ASSEMBLY/PRE-OPERATION

Your new tractor has been assembled at the factory with the 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.

- (1) 3/4" wrench
- (1) Pliers
- (2) 7/16" wrench
- (1) Utility knife
- (1) Tire pressure gauge

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

# TO REMOVE TRACTOR FROM CARTON

#### **UNPACK CARTON**

- Remove all accessible loose parts and parts boxes from carton.
- 2. Cut along dotted lines on all four panels of carton. Remove end panels and lay side panels flat.
- Check for any additional loose parts or cartons and remove.

# BEFORE REMOVING TRACTOR FROM SKID

#### ATTACH STEERING WHEEL

ASSEMBLE EXTENSION SHAFT AND BOOT

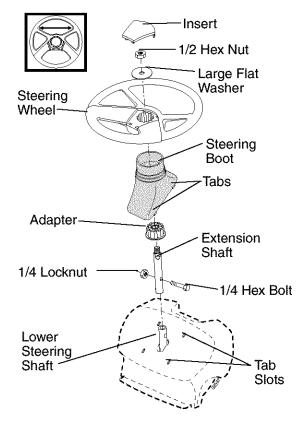
 Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 1/4 hex bolt and locknut. Tighten securely.

**IMPORTANT:** Tighten bolt and nut securely to 10-12 ft. lbs torque.

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

#### **INSTALL STEERING WHEEL**

- 3. Position front wheels of the tractor so they are pointing straight forward.
- Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
- 5. Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- 6. Assemble large flat washer, 1/2 hex nut and tighten securely.
- 7. Snap steering wheel insert into center of steering wheel.



8. Remove protective materials from tractor hood and grill.

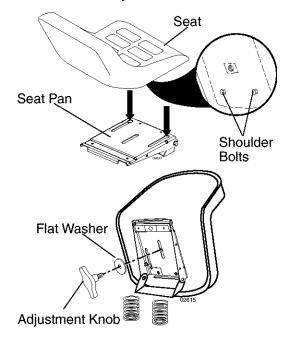
**IMPORTANT:** Check for and remove any staples in skid that may puncture tires where tractor is to roll off skid.

# HOW TO SET UP YOUR TRACTOR INSTALL SEAT

Adjust seat before tightening adjustment knob.

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

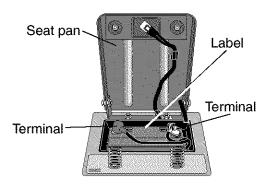
- 6. Lower seat into operating position and sit in seat.
- 7. Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- 8. Get off seat without moving its adjusted position.
- 9. Raise seat and tighten adjustment knob securely.



#### **CHECK BATTERY**

1. Lift seat pan to raised position.

NOTE: 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 Maintenance section of this manual for charging instructions).



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

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

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- 3. Place gearshift lever in neutral (N) position.
- 4. Roll tractor forward off skid.
- 5. Remove banding holding deflector shield up against tractor.

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

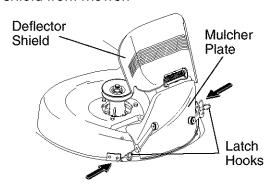
WARNING: Before starting, read, understand and follow all instructions in the Operation section of this manual. Be sure tractor is in a well-ventilated area. Be sure the area in front of tractor is clear of other people and objects.

- 1. Be sure all the above assembly steps have been completed.
- 2. Check engine oil level and fill fuel tank with gasoline.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- 4. Place gear shift lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Depress clutch/brake pedal into full "BRAKE" position and hold. Move gearshift lever to 1st gear.
- 8. Slowly release clutch/brake pedal and slowly drive tractor off skid.
- Apply brake to stop tractor, set parking brake and place gearshift lever in neutral position.
- 10. Turn ignition key to "STOP" position. Continue with the instructions that follow.

# INSTALL MULCHER PLATE (If previously removed)

- Raise and hold deflector shield in upright position.
- 2. 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.
- 4. Hook rear latch into hole on back of mower deck.

**CAUTION**: Do not remove deflector shield from mower.



# 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" section of this manual.

#### **CHECK DECK LEVELNESS**

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

# CHECK FOR PROPER POSITION OF ALL BELTS

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

#### **CHECK BRAKE SYSTEM**

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

#### ✓ CHECKLIST

Before you operate and enjoy your new tractor, we wish to assure that you receive the best performance and satisfaction from this Quality Product.

Please review the following checklist:

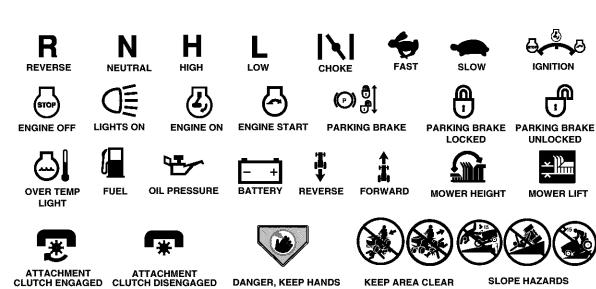
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated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

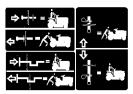
While learning how to use your tractor, pay extra attention to the following important items:

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

### **OPERATION**

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





FREE WHEEL (Automatic Models only)



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



AND FEET AWAY

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

(SEE SAFETY RULES SECTION)



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



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

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



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

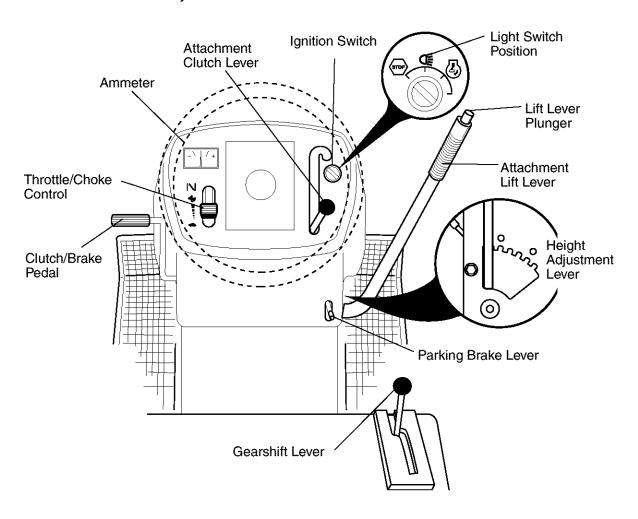


FIRE indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

#### **KNOW YOUR TRACTOR**

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

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



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

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

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

ATTACHMENT LIFT LÉVER - Used to raise, lower, and adjust the mower deck or other attachments mounted to your tractor. CLUTCH/BRAKE PEDAL - Used for

declutching and braking the tractor and starting the engine.

**GEARSHIFT LEVER** - Selects the speed and direction of tractor.

**IGNITION SWITCH** - Used for starting and stopping the engine.

**LIFT LEVER PLUNGER** - Used to release attachment lift lever when changing its position.

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

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

**THROTTLE/CHOKE CONTROL** - Used for starting and controlling engine speed.

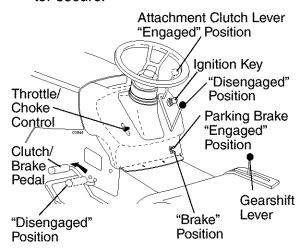


The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety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

# HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE

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

- Depress clutch/brake pedal all the way down and hold.
- Pull parking brake lever up 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 all the way down.
- Move gearshift lever to neutral (N) position.

#### **ENGINE** -

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

**IMPORTANT:** Leaving the ignition switch in any position other than "STOP" will cause the battery to discharge and go dead.

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

**CAUTION:** Always stop tractor completely, as described above, before leaving the operator's position.

#### TO USE 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.

#### TO MOVE FORWARD AND BACKWARD

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

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

**IMPORTANT:** Bring tractor to a complete stop before shifting or changing gears. Failure to do so will shorten the useful life of your transaxle.

#### TO ADJUST MOWER CUTTING HEIGHT

The position of the attachment lift lever determines the cutting height.

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

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

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

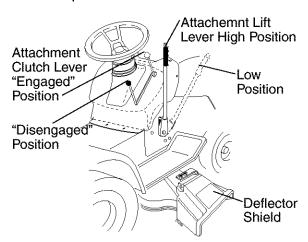
#### TO OPERATE MOWER

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

- 1. Select desired height of cut.
- 2. Start mower blades by engaging attachment clutch control.

TO STOP MOWER BLADES - disengage attachment clutch control.

without either the entire grass catcher, on mowers so equipped, or the deflector shield in place.



#### TO OPERATE ON HILLS

**WARNING:** Do not drive up or down hills with slopes greater than 15° and do not drive across any slope. Use the slope guide 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 gearshift lever to 1st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

#### **TO TRANSPORT**

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

**NOTE:** To protect hood from damage when transporting your tractor on a truck or 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 ATTACH-MENTS

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

# BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL

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

- 1. 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 the oil viscosity chart in the Maintenance section of this manual).
- To change engine oil, see the Maintenance section in this manual.

#### **ADD GASOLINE**

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

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

**IMPORTANT:** When operating in temperatures below32°F(0°C), use fresh, clean winter grade gasoline to help insure good cold weather starting.

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

#### TO START ENGINE

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.

- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- 2. Place gear shift lever in neutral (N) position.
- Move attachment clutch to disengaged position.
- 4. Move throttle control to choke position. **NOTE:** Before starting, read the warm and cold starting procedures below.

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

WARM WEATHER STARTING (50° F and above)

- 6. When engine starts, move the throttle control to the fast position.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

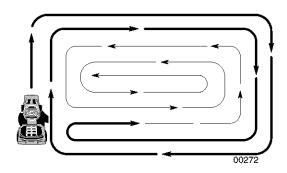
COLD WEATHER STARTING (50° F and below)

- 6. When engine starts, leave throttle control in choke position until engine warms up and begins to run roughly. Once rough running begins, immediately move the throttle control to the fast position. Engine warm-up may take from several seconds to several minutes (the colder the temperature, the longer the warm-up).
- The attachments can also be used during the engine warm-up period.

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

#### **MOWING TIPS**

- 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 already 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.

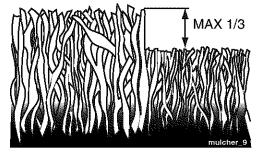


- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings.
   Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet.
   Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before 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 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, the newly cut area will not be
  exposed to direct sunlight.
- 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 grass, 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 (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**

AS	MAINTENANCE SCHEDUL LI IN DATES YOU COMPLETE GULAR SERVICE	E	EFORE	EACH US	HOURS HOURS	S HOURS	VERY S	O HOL	RS SEASON SEFORES	SERVIC	DE DATES	3
	Check Brake Operation	~	<b>/</b>									7
	Check Tire Pressure	1	<b>/</b>									1
Т	Check Operator Presence and Interlock Systems	~										
R	Check for Loose Fasteners	1				<b>1</b> /5		1				1
Ĭ	Sharpen/Replace Mower Blades			<b>1</b> 3								1
C	Lubrication Chart			<b>/</b>				/				
ò	Check Battery Level			<b>1</b> 4								
R	Clean Battery and Terminals			<b>/</b>				/				
	Check Transaxle Cooling			1								
	Check V-Belts					1						
	Check Engine Oil Level	/	<b>1</b>									
	Change Engine Oil (with oil filter)				<b>1</b> 1,2	2		1				
E	Change Engine Oil (without oil filter)			1,2				1				
N	Clean Air Filter			<b>√</b> 2								1
Ģ	Clean Air Screen			1/2								1
N	Inspect Muffler/Spark Arrester				/							1
E	Replace Oil Filter (If equipped)					1,2						٦
_	Clean Engine Cooling Fins					<b>√</b> 2						Henri Scient de los estem
	Replace Spark Plug					1	<b>/</b>					- G-8
	Replace Air Filter Paper Cartridge					<b>√</b> 2						200
	Replace Fuel Filter						1					7

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

#### GENERAL RECOMMENDATIONS

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

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

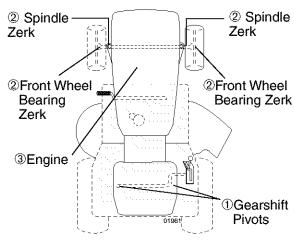
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

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

#### **BEFORE EACH USE**

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

#### LUBRICATION CHART



- **®SAE 30 or 10w30 Motor Oil**
- **2**General Purpose Grease
- ③Refer to Maintenance "ENGINE" Section

**IMPORTANT:** Do not oil or grease the pivot points which have special nylon bearings. Viscous lubricants will attract dust and dirt that will shorten the life of the self-lubricating bearings. If you feel they must be lubricated, use only a dry, powdered graphite type lubricant sparingly.

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

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

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

#### **OPERATOR PRESENCE SYSTEM**

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

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

#### **BLADE CARE**

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

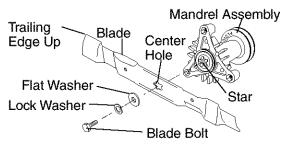
#### **BLADE REMOVAL**

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

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

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

**IMPORTANT**: Blade bolt is heat treated. If bolt needs replacing, replace only with approve bolt shown in the Repair Parts.



#### TO SHARPEN BLADE

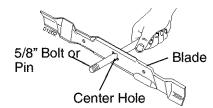
**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

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 on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer.)

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

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



#### **BATTERY**

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

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

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

TO CLEAN BATTERY AND TERMINALS Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

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

#### TRANSAXLE COOLING

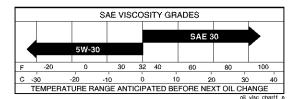
Keep transaxle free from build-up of dirt and chaff which can restrict cooling.

#### 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.

# ENGINE LUBRICATION

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



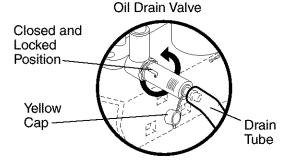
**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, the oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

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

#### TO CHANGE ENGINE OIL

Determine temperature range expected before oil change. All oil must meet API service classification SG-SL.

- 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.
- 2. Remove yellow cap from end of drain valve and install the drain tube onto the fitting.



- Unlock drain valve by pushing inward slightly and turning counterclockwise.
- 4. To open, pull out on the drain valve.
- After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
- 6. Remove the drain tube and replace the cap onto the end of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PROD-UCT SPECIFICATIONS" section of this manual.
- Use gauge on oil fill cap/dipstick for checking level. For accurate reading, tighten dipstick cap securely onto the tube before removing dipstick. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

#### **ENGINE OIL FILTER**

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

#### **AIR FILTER**

Your engine will not run properly using a dirty air filter. Replace 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.

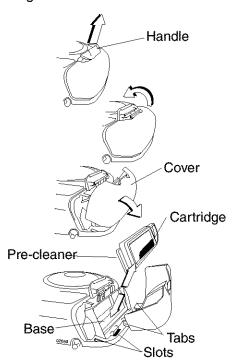
Service air cleaner more often under dusty conditions.

- Pull up on air filter cover handle and rotate towards engine.
- 2. Remove cover.
- Carefully remove air filter cartridge and pre-cleaner from base.
- 4. Clean base carefully to prevent debris from falling into carburetor.

**NOTE**: If very dirty or damaged, replace cartridge.

- 5. Place new pre-cleaner and cartridge firmly in base.
- 6. Align tabs on cover with slots in blower housing and replace cover.
- 7. Hook handle on cover and push down on handle to close.

**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 cartridge.

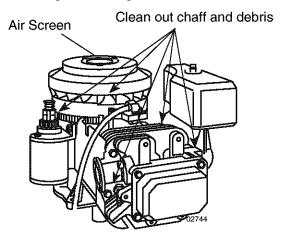


#### **CLEAN AIR SCREEN**

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

#### **ENGINE COOLING SYSTEM**

Debris may clog the engine's air cooling system. Remove blower housing and clean area shown to prevent overheating and engine damage.



#### **MUFFLER**

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

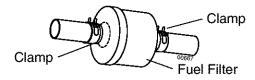
#### SPARK PLUG(S)

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

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

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

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



#### **CLEANING**

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

We do not recommend using a garden hose or pressure washer to clean your tractor unless the engine and transmission are covered to keep water out. Water in engine or transmission will shorten the useful life of your tractor. Use compressed air or a leaf blower to remove grass, leaves and trash from tractor and mower.

### **SERVICE AND ADJUSTMENTS**



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

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

#### **TRACTOR**

#### TO REMOVE MOWER

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

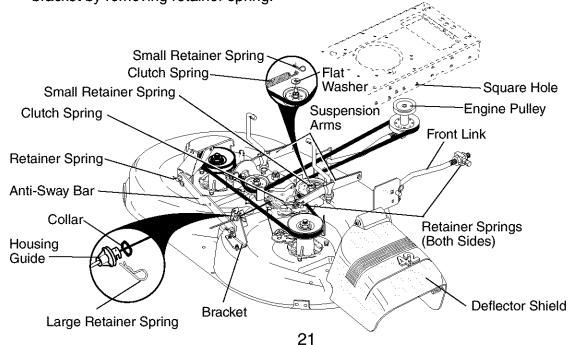
- 1. Place attachment clutch in "DISEN-GAGED" position.
- 2. Move attachment lift lever forward to lower mower to its lowest position.
- 3. Roll belt off engine pulley.
- 4. Remove small retainer spring, and remove clutch spring off pulley bolt.
- 5. Remove large retainer spring, slide collar off and push housing guide out of bracket.
- 6. Disconnect anti-sway bar from chassis bracket by removing retainer spring.

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

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

#### TO INSTALL MOWER

1. Raise attachment lift lever to its highest position.



- 2. Slide mower under tractor with deflector shield to right side of tractor.
- 3. Lower lift lever to its lowest position.
- 4. Connect front links to mower deck and secure with retainer springs.
- Connect suspension arms to rear deck brackets and secure with retainer springs.
- Connect anti-sway bar to chassis bracket and secure with retainer spring.
- 7. Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- 8. Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- 9. Install belt onto engine pulley.

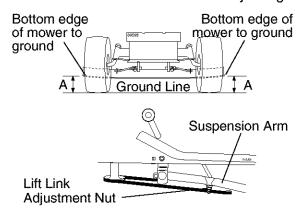
#### TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PROD-UCT SPECIFICATIONS" section of this manual). 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.



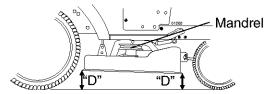
#### FRONT-TO-BACK ADJUSTMENT

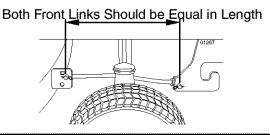
**IMPORTANT:** Deck must be level side-to side. If the following front-to-back adjustment is necessary, be sure to adjust both front links equally so mower will stay level side-to-side.

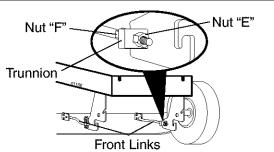
To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

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

- Before making any necessary adjustments, check that both front links are equal in length.
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns. The two front links must remain equal in length.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- · Recheck side-to-side adjustment.







## TO REPLACE MOWER BLADE DRIVE BELT

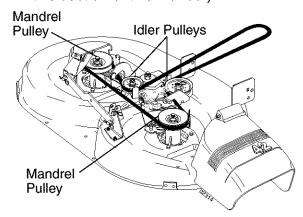
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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



#### TO CHECK AND ADJUST BRAKE

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

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

#### TO CHECK BRAKE

- Park tractor on a level, dry concrete or paved surface, depress clutch/brake pedal all the way down and engage parking brake.
- 2. Place gear shift lever in neutral (N) position.

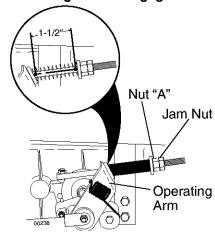
The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, the brake needs to be adjusted or the pads need to be replaced.

#### TO ADJUST BRAKE

 Depress clutch/brake pedal all the way down and engage parking brake.

- 2. Measure distance between brake operating arm and nut "A" on brake rod.
- 3. If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- 4. Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than five (5) feet in highest gear, further maintenance is necessary. Replace brake pads or contact a Sears or other qualified service center.

#### With Parking Brake "Engaged"



#### 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.

#### **BELT REMOVAL -**

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

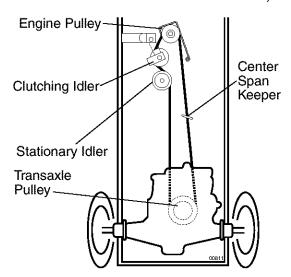
**NOTE:** Observe entire motion drive belt and position of all belt guides and keepers.

- 2. Remove belt from stationary idler and clutching idler.
- Remove belt downward from around engine pulley.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Remove belt from center span keeper and pull belt away from tractor.

#### **BELT INSTALLATION -**

- Carefully work new belt down between transaxle belt keepers and onto the input pulley.
- 2. Slide belt into the center span keeper.
- 3. Pull belt toward front of tractor and roll around the top groove of engine pulley.
- 4. Install belt through stationary idler and clutching idler.

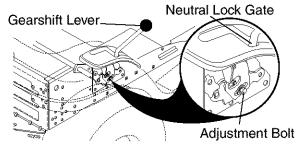
- 5. Make sure belt is in all pulley grooves and inside all belt guides and keepers.
- 6. Install mower (See "TO INSTALL MOWER" in this section of manual).



# TRANSAXLE GEAR SHIFT LEVER NEUTRAL ADJUSTMENT

The transaxle should be in neutral when the gear shift lever is in neutral (N) (lock gate) position. The adjustment is preset at the factory; however, if adjustment is needed, proceed as follows:

- 1. Make sure transaxle is in neutral (N). **NOTE:** When the tractor rear wheels move freely, the transaxle is in neutral.
- 2. Loosen adjustment bolt in front of the right rear wheel.
- Position the gear shift lever in the neutral (N) position.
- 4. Tighten adjustment bolt securely. **NOTE:** If additional clearance is needed to get to adjustment bolt, move mower deck height to the lowest position.



#### 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 with crossbars horizontal. Tighten securely.

#### 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 a Sears or other qualified service center.

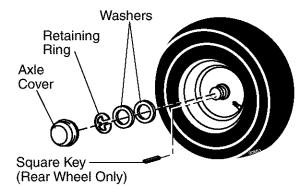
#### TO REMOVE WHEEL FOR REPAIRS

- 1. Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheels have a square key - Do not lose).
- 3. Repair tire and reassemble. **NOTE:** 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.
- 5. Replace axle cover.

**NOTE:** To seal tire punctures and prevent flat tires due to slow leaks, purchase and use tire sealant from Sears. Tire sealant also prevents tire dry rot and corrosion.



#### TO START ENGINE WITH A WEAK BAT-TERY

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

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

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

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

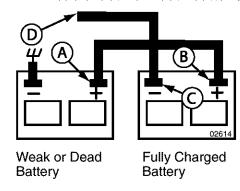
#### TO ATTACH JUMPER CABLES -

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

- Connect one end of the BLACK cable to the NEGATIVE (-) terminal (C) of fully charged battery.
- Connect the other end of the BLACK cable (D) to good chassis ground, away from fuel tank and battery.

## TO REMOVE CABLES, REVERSE ORDER -

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

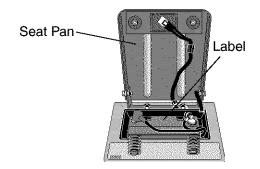


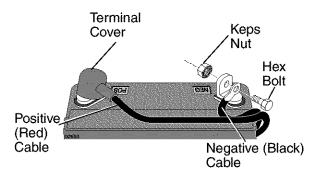
#### REPLACING BATTERY

**WARNING:** 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.

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





#### TO REPLACE HEADLIGHT BULB

- 1. Raise hood.
- 2. 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.
- 4. Close hood.

#### **INTERLOCKS AND RELAYS**

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

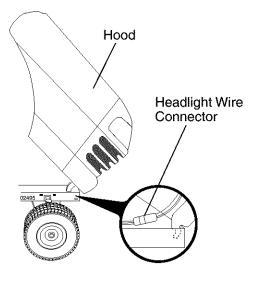
 Check wiring. See electrical wiring diagram in the Repair Parts section.

#### TO REPLACE FUSE

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

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

- 1. Raise hood.
- 2. Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- When replacing hood, be sure to reconnect the headlight wire connector.



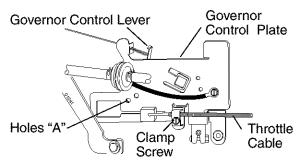
#### **ENGINE**

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road 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 from slow to choke position. Slowly move lever from choke to fast position.
- Check that holes "A" in governor control lever and hole in governor plate line-up. If holes "A" are not aligned, loosen clamp screw and move throttle cable until holes are aligned. Tighten clamp screw securely.



#### TO ADJUST CARBURETOR

**NOTE:** The carburetor on this engine is low emission. It is equipped with an idle fuel adjusting needle with a limiter cap, which allows some adjustment within the limits allowed by the cap. Do not attempt to remove the limiter cap. The limiter cap cannot be removed without breaking the adjusting needle.

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, proceed as follows:

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

**IMPORTANT:** Damage to the needle valve and the seat in carburetor may result if screw is turned in too tight.

#### PRELIMINARY SETTING -

- Air cleaner assembly must be assembled to the carburetor when making carburetor adjustments.
- 2. Be sure the throttle control cable is adjusted properly (see above).

#### FINAL SETTING -

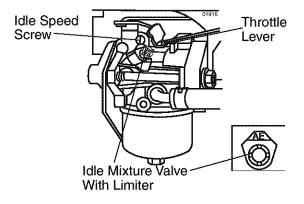
- 1. Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (**N**) position.
- Move throttle control lever to slow position. With finger, rotate and hold throttle lever against idle speed screw. Turn idle speed screw to attain 1750 RPM.
- While still holding throttle lever against idle speed screw, turn idle mixture valve full travel clockwise then counterclockwise until engine runs rough. Turn valve to a point midway between those two positions. Release throttle lever.

#### **ACCELERATION TEST -**

 Move throttle control lever from slow to fast position. If engine hesitates or dies, turn idle mixture valve 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 a Sears or other qualified service center, 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.

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

#### **TRACTOR**

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

- Clean entire tractor (See "CLEANING" in the Maintenance section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- 3. 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 hose, or tank during storage. Also, 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.

- Empty the fuel tank by starting the engine and letting it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- · Use fresh fuel next season.

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

#### **ENGINE OIL**

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

#### CYLINDER(S)

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

#### **OTHER**

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

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

### TROUBLESHOOTING CHART: See appropriate section in manual unless directed to Sears service center

PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> </ol>
	<ol> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	8. Check all wiring.  9. See "To Adjust Carburetor" in Service and Adjustments section.  10. Contact a Sears or other qualified service center.
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service and Adjustments section.</li> <li>Contact a Sears or other qualified service center.</li> </ol>
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ol>	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact a Sears or other qualified service center.</li> </ol>
Engine clicks but will not start	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ol>	<ol> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>

### TROUBLESHOOTING CHART: See appropriate section in manual unless directed to Sears service center

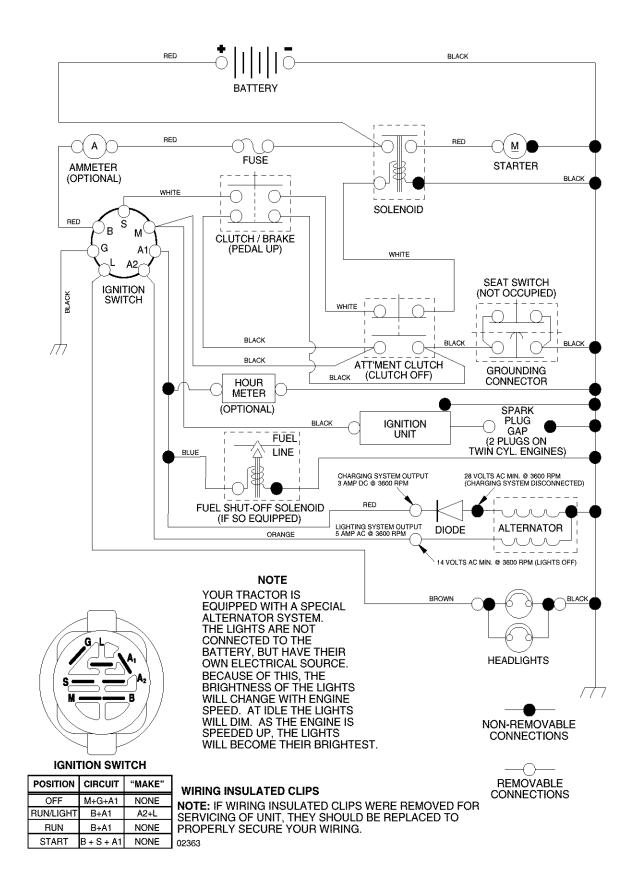
PROBLEM	CAUSE	CORRECTION
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Spark plug wire loose.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> </ol>
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	<ol> <li>Replace blade.         Tighten blade bolt.</li> <li>Contact a Sears or other qualified service center.</li> <li>Tighten loose part(s).         Replace damaged parts.</li> </ol>
Engine continues to run when operator leaves seat with attach- ment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact Sears or other qualified service center.
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Contact a Sears or other qualified service center.</li> <li>Clean around mandrels to open vent holes.</li> </ol>

### TROUBLESHOOTING CHART: See appropriate section in manual unless directed to Sears service center

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

#### TRACTOR - - MODEL NUMBER 917.273397

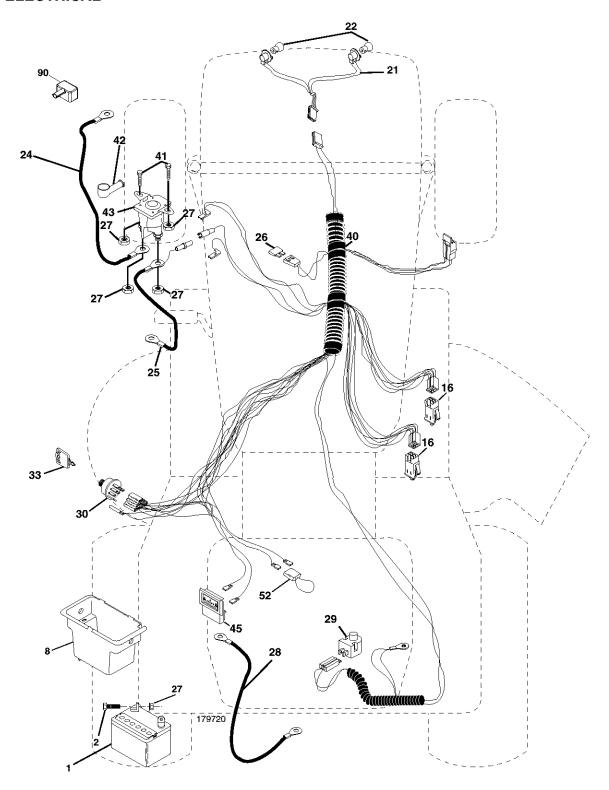
#### **SCHEMATIC**



## **REPAIR PARTS**

### TRACTOR - - MODEL NUMBER 917.273397

### **ELECTRICAL**



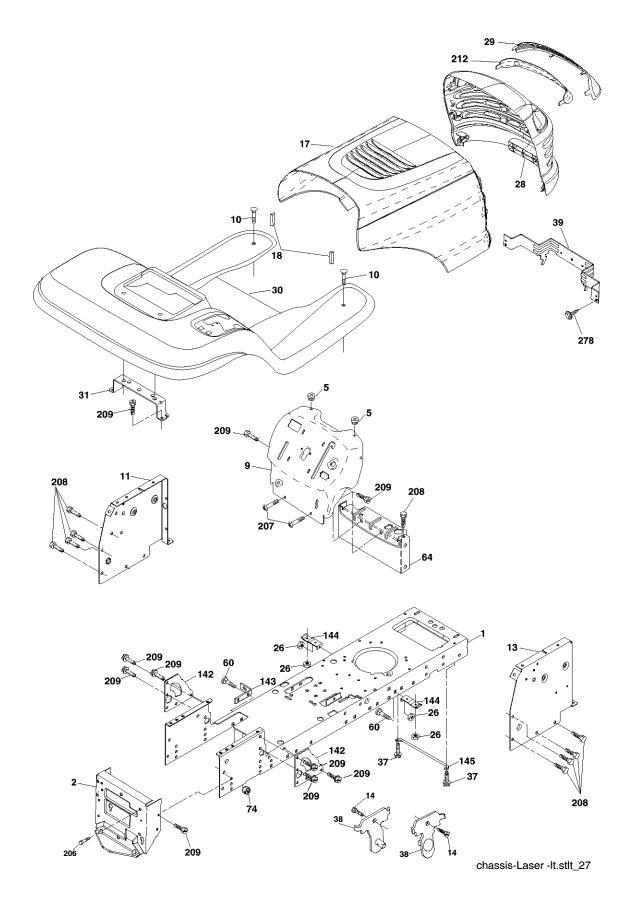
### TRACTOR - - MODEL NUMBER 917.273397

### **ELECTRICAL**

KEY	PART	
NO.	NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20 unc x 3/4
8	176689	Box Battery Fender
16	176138	Switch, Interlock
	183759	Harness Asm Light W/4152j
22	4152J	Bulb Light #1156
	4799J	Cable Battery 6 Ga. 11" red
25	146147	Cable Battery 6 Ga. w/16 wire red
26	175158	Fuse 20 AMP
27	73510400	Nut, Keps Hex 1/4-20 unc
28	4207J	Cable Ground 6 Ga. 12" black
29	121305X	Switch Plunger Nc Gray
30	175566	Switch Ign
33	140403	Key Ign Molded Craftsman
40	179720	Harness Ign
41	71110408	Bolt Blk. Fin Hex 1/4-20 unc x 1/2
42	131563	Cover Terminal Red
43	178861	Solenoid
45	122822X	Ammeter Rectangular 6 Amp
52	141940	Protection Wire Loop
90	180499	Cover Battery Terminal

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

# TRACTOR - - MODEL NUMBER 917.273397 CHASSIS AND ENCLOSURES

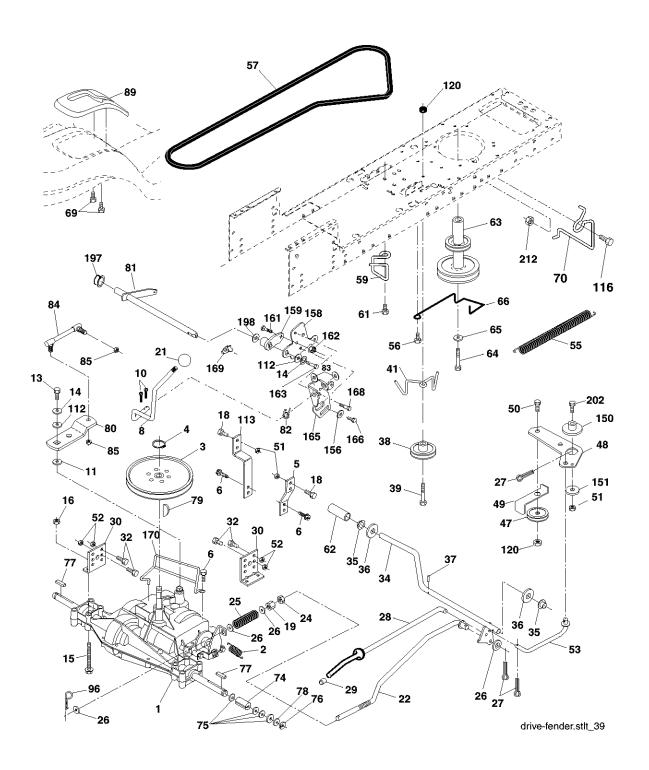


# TRACTOR - - MODEL NUMBER 917.273397 CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
1	174619	Chassis Stamping
2	176554	Drawbar
5	155272	Bumper Hood/Dash
9	187846X013	
10	STD533710	
11	174996	Panel, Dash, L.H.
13		Panel, Dash, R.H.
14	17490608	Screw Thdrol 3/8-16 x 1/2
17		Hood Assembly Laser
18	184921	Bumper Hood Large 1.75
26	STD541437	
28	188636	Grille Lens Asm Laser (Includes Key Nos. 29 and 212)
29	174332X599	Lens, Laser
30		Fend/Ftrest Pnt STLT
31	139976	Bracket, Fender Support
37	17490508	Screw Thdrol 5/16-18 x 1/2 Tyt
38	175710	Bracket Asm. Pivot Mower Rear
39	174714	Bracket Pivot Laser
60	72140606	Bolt Rdhd Sqnk 3/8-16 unc x 3/4
64	154798	Dash Lower STLT
74	73680600	Nut Crownlock 3/8-16 unc
142	175702	Plate Reinforcement STLT
143	186689	Bracket Swaybar Chassis
144	175582	Bracket Pnt Footrest STLT
145	156524	Jod Pivot Chassis/Hood
206	170165	Bolt Shoulder 5/16 -18 TT
207	17670508	Screw Thdrol 5/16-18 x 1/2 TYTT
208	17670608	Screw Thdrol 3/8-16 x 1/2
209	17000612	Screw Hex Wsh Thdr 3/8-16 x 3/4
212	175143	Insert Lens Reflective
278	191611	Screw 10 x 3/4 Single Lead-Hex
	5479J	Plug, Button
	187801	Plug Dome Plastic

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

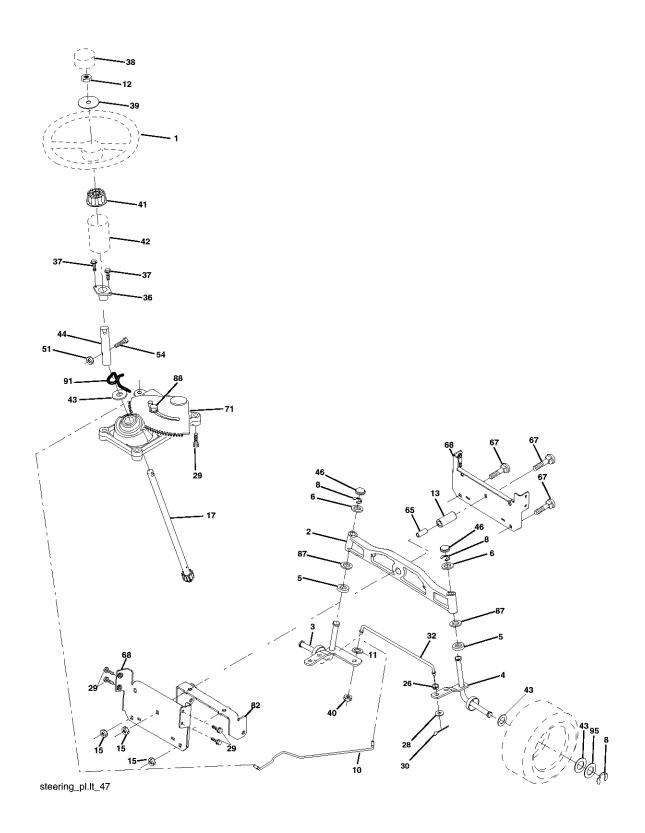
### **GROUND DRIVE**



#### **GROUND DRIVE**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle (See Breakdown)	62	8883R	Cover, Pedal
•		Dana 4360-140	63	175410	Pulley, Engine
2	146682	Spring Brake Return	64	173937	Bolt Hex 7/16-20 x 4 Gr. 5-1.5
3	123666X	Pulley Transaxle	65		
4	12000028	Ring Retainer	66	154778	Keeper Belt Engine Hydro
5	121520X	Strap Torque 30 Degrees	69	142432	Screw Hex Wsh Hi-Lo 1/4 x 1/2 unc
6	17000512	Screw 5/16-18 x 3/4	70	134683	Keeper Belt Engine
8	165866	Rod Shift Fender Adjust	74	109502X	Spacer
10		Pin Cotter 1/8 x 1 CAD	75	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
11	105701X	Washer Plate Shift	76		E-Ring
13	74550412	Bolt 1/4-28unf Gr. 8 W/Patch	77	123583X	Key, Square
14	10040400	Washer Lock Hvy Helical	78	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
15	74490544	Bolt Hex FLGHD 5/16-18 Gr. 5	79	2228M	Key Woodruff
16	STD541431	Nut Lock Hex W/Ins. 5/16-18 unc	80	131488	Arm Shift
18	74780616	Bolt Fin Hex 3/8-16 x 1 Gr. 5	81	165594	Shaft Asm Cross Tapered
19	STD541437		82	165711	Spring Torsion
21	106933X	Knob	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
22	130804	Rod, Brake	84	166229	Link Transaxle
24	73350600	Nut, Hex Jam 3/8-16 unc	85	150360	Nut Lock Center 1/4-20
25	106888X	Spring, Brake Rod	89		Console, Shift
26		Washer 13/32 x 13/16 x 16 Ga.	96	4497H	Retainer Spring 1" Zinc/Cad
27		Pin Cotter 1/8 x 3/4 CAD.	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
28	175765	Rod, Parking Brake	113	127285X	Strap Torque 90 Degrees
29	71673	Cap, Parking Brake	116	72140608	Bolt Rdhd Sqneck 3/8-16 x 1.25
30	174973	Bracket, Transaxle	120	73900600	Nut Lock Flg 3/8-16
32	74760512	Bolt Hex Hd 5/16-18 unc x 3/4	150	175456	Spacer Retainer
34	175578	Shaft, Foot Pedal	151	19133210	Washer 13/32 x 2 x 10 Ga.
35	120183X	Bearing, Nylon	156	166002	Washer Srrted 5/16ID x 1.125
36	19211616	Washer	158	165589	Bracket Shift Mount
37	1572H	Pin, Roll	159	183900	Hub Tapered Flange Shift Lt
38	179114	Pulley, Composite, Flat	161	72140406	Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr 5
39	72110622	Bolt RDHD 3/8-16 unc x 2-3/4 Gr.5	162	73680400	Nut Crownlock 1/4-20 unc
41	175556	Keeper, Belt Idler	163	74780416	Bolt Hex Fin 1/4-20 unc x 1 Gr 5
47	127783	Pulley, Idler, V-Groove	165	165623	Bracket Pivot Lever
48	154407	Bellcrank, Clutch	166	17490510	Screw 5/16-18 x 5/8
49	123205X	Retainer, Belt	168	165492	Bolt Shoulder 5/16-18 x .561
50	72110612	Bolt Hex Hd 3/8-16 x 1-1/2	169	165580	Plate Fastening
51	STD541437		170	187414	Keeper Belt T/A
52	STD541431		197	169613	Nyliner Snap-In 5/8"ID
53	105710X	Link, Clutch	198	169593	Washer Nyl 7/8 ID x .105" Hyd
55	105709X	Spring, Return, Clutch	202	72110614	Bolt Carr Sh 3/8-16 x 1-3/4 Gr.5
56	17060620	Screw 3/8-16 x 1.04	212	145212	Nut Hex Flg. Lock
57	160855	V-Belt			<del>-</del>
59	169691	Keeper, Center Span	NOTE		ent dimensions given in U.S.
61	17120614	Screw . 3/8-16 x .875		inches 1 inch	1 = 25.4 mm

# TRACTOR - - MODEL NUMBER 917.273397 STEERING ASSEMBLY

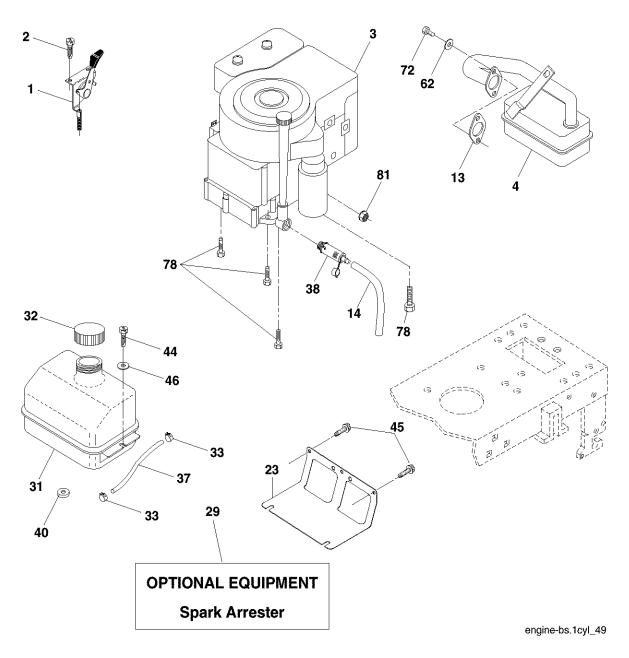


# TRACTOR - - MODEL NUMBER 917.273397 STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	139768	Steering Wheel
2	184706	Axle Assembly
3	169840	Spindle Assembly, L.H.
4	169839	Spindle Assembly, R.H.
5	6266H	Bearing, Race, Thrust, Hardened
6	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
8	12000029	Ring, Klip
10	175121	Draglink
11	STD551137	Washer, Lock
12	73940800	Nut Hex Jam Toplock 1/2-20 unf
13	136518	Spacer Brg Axle Front
15	145212	Nut, Hexflange Lock
17	180641	Shaft Assembly, Steering
26	126847X	Bushing, Link, Drag
28	19131416	Washer 13/32 x 7/8 x 16 Ga.
29	17000612	Screw 3/8-16 x 3/4
30	STD561210	Pin
32	130465	Rod, Tie
36 37	155099 152927	Bushing, Steering Screw
38	139769	Insert, Steering Wheel
39	19183812	Washer 9/16 x 2-3/8
40	73540600	Nut Crownlock 3/8-24
41	186737	Adaptor, Steering Wheel
42	145054x428	
43	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
44	180640	Extension Shaft Steering
46	184946X505	Cap, Spindle Red
51	73540400	Nut Crownlock 1/4-28
54	71130420	Bolt Hex 1/4-28 unf x 1-1/4 Gr. 8
65	160367	Spacer Brace Axle
67	72110618	Bolt Rdhd Sqnk 3/8-16 x 2-1/4
68	169827	Axle, Brace
71	175146	Steering Asm
82	169835	Bracket Susp Chassis Front
87	173966	Washer Flat .781 x 1-1/2 x .14
88	175118	Bolt Shoulder 7/16-20
91 95	175553	Clip Steering Washer Hardened .793 x 1.637 x .060
90	188967	washer flatuetieu ./35 x 1.03/ X .000

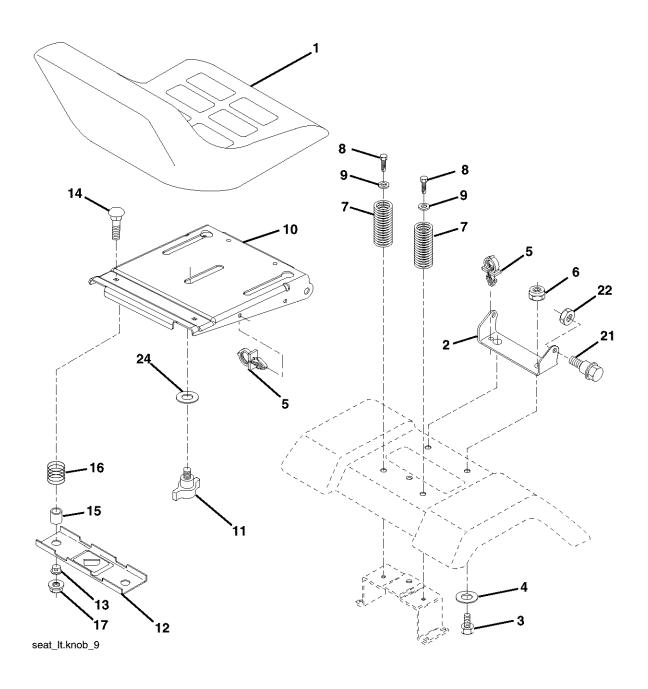
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

#### **ENGINE**



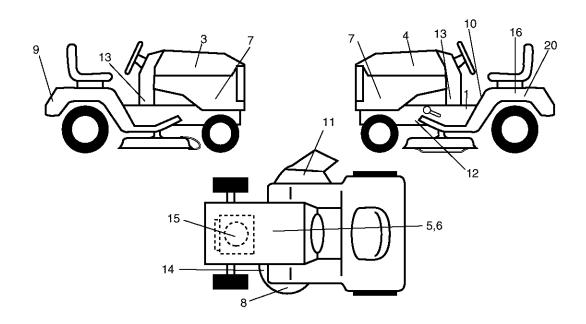
1       170545       Control, Throttle/Choke       38       181654       Plug, Drain Oil Easy         2       17720408       Screw, Hex Head, Thread Cutting       40       124028X       Bushing Snap         1/4-20 x 1/2       44       17670412       Screw, Hex Washer Head, Thd.,         3       Engine, (See Breakdown) Briggs       Roll. 1/4-20 x 3/4         4       137352       Muffler       45       17000612       Screw Hex Wsh Thdr 3/8-16 x 3/4         4       137352       Gasket       62       10010500       Washer 9/32 x 7/8 x 16 Ga.         13       165291       Gasket       62       10010500       Washer Split         14       148456       Tube Drain Oil Easy       72       71070512       Screw Hex Hex Hex 1/4 20 use         23       169837       Shield Brn/Dbr Guard       78       17060620       Screw 3/8-16 x 1-1/4         20       137180       Arrester Sperk       81       73510400       Nut Kore Hex 1/4 20 use	KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1/4-20 x 1/2 44 17670412 Screw, Hex Washer Head, Thd., Engine, (See Breakdown) Briggs Model No. 31H777-0112-E1 45 17000612 Screw Hex Wsh Thdr 3/8-16 x 3/4 4 137352 Muffler 46 19091416 Washer 9/32 x 7/8 x 16 Ga. 13 165291 Gasket 62 10010500 Washer Split 14 148456 Tube Drain Oil Easy 72 71070512 Screw Hex Hd Cap 5/16-18 x 3/4 23 169837 Shield Brn/Dbr Guard 78 17060620 Screw 3/8-16 x 1-1/4	1	170545	Control, Throttle/Choke	38	181654	Plug, Drain Oil Easy
3        Engine, (See Breakdown) Briggs Model No. 31H777-0112-E1       45       17000612       Screw Hex Wsh Thdr 3/8-16 x 3/4         4       137352       Muffler       46       19091416       Washer 9/32 x 7/8 x 16 Ga.         13       165291       Gasket       62       10010500       Washer Split         14       148456       Tube Drain Oil Easy       72       71070512       Screw Hex Hd Cap 5/16-18 x 3/4         23       169837       Shield Brn/Dbr Guard       78       17060620       Screw 3/8-16 x 1-1/4	2	17720408	Screw, Hex Head, Thread Cutting	40	124028X	Bushing Snap
Model No. 31H777-0112-E1 45 17000612 Screw Hex Wsh Thdr 3/8-16 x 3/4 4 137352 Muffler 46 19091416 Washer 9/32 x 7/8 x 16 Ga. 13 165291 Gasket 62 10010500 Washer Split 14 148456 Tube Drain Oil Easy 72 71070512 Screw Hex Hd Cap 5/16-18 x 3/4 23 169837 Shield Brn/Dbr Guard 78 17060620 Screw 3/8-16 x 1-1/4			1/4-20 x 1/2	44	17670412	Screw, Hex Washer Head, Thd.,
4       137352       Muffler       46       19091416       Washer 9/32 x 7/8 x 16 Ga.         13       165291       Gasket       62       10010500       Washer Split         14       148456       Tube Drain Oil Easy       72       71070512       Screw Hex Hd Cap 5/16-18 x 3/4         23       169837       Shield Brn/Dbr Guard       78       17060620       Screw 3/8-16 x 1-1/4	3		Engine, (See Breakdown) Briggs			Roll. 1/4-20 x 3/4
13       165291       Gasket       62       10010500       Washer Split         14       148456       Tube Drain Oil Easy       72       71070512       Screw Hex Hd Cap 5/16-18 x 3/4         23       169837       Shield Brn/Dbr Guard       78       17060620       Screw 3/8-16 x 1-1/4			Model No. 31H777-0112-E1	45	17000612	Screw Hex Wsh Thdr 3/8-16 x 3/4
14       148456       Tube Drain Oil Easy       72       71070512       Screw Hex Hd Cap 5/16-18 x 3/4         23       169837       Shield Brn/Dbr Guard       78       17060620       Screw 3/8-16 x 1-1/4	4	137352	Muffler	46	19091416	Washer 9/32 x 7/8 x 16 Ga.
23 169837 Shield Brn/Dbr Guard 78 17060620 Screw 3/8-16 x 1-1/4	13	165291	Gasket	62	10010500	Washer Split
	14	148456	Tube Drain Oil Easy	72	71070512	Screw Hex Hd Cap 5/16-18 x 3/4
20 127120 Arrector Charles 91 72510400 Nut Kone Hay 1/4 20 upo	23	169837	Shield Brn/Dbr Guard	78	17060620	Screw 3/8-16 x 1-1/4
29 137100 Allesiol, Spaik 01 73310400 Null Keps Hex 1/4-20 und	29	137180	Arrestor, Spark	81	73510400	Nut Keps Hex 1/4-20 unc
31 184900 Tank, Fuel	31	184900	Tank, Fuel			
32 140527 Cap Assembly, Fuel Sears, Vented NOTE, All companies diversing U.S. inches	32	140527		MOTE	. All compon	ant dimensions given in LLC inches
33 123487X Clamp, Hose NOTE: All component dimensions given in U.S. inches	33	123487X	Clamp, Hose	NOTE		
37 137040 Line, Fuel 1 inch = 25.4 mm	37	137040		_	i inch = 25.	.4 mm

# TRACTOR - - MODEL NUMBER 917.273397 SEAT ASSEMBLY



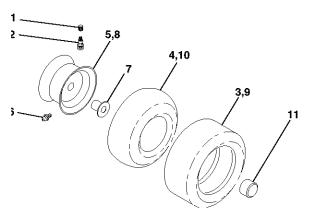
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	188716	Seat	13	121248X	Bushing, Snap
2	180166	Bracket, Pivot, Seat	14	72050412	Bolt, Carriage 1/4-20 x 1-1/2
3	71110616	Bolt	15	134300	Spacer, Split .28 x .88
4	19131610	Washer 13/32 x 1 x 10 Ga.	16	121250X	Spring
5	145006	Clip, Push-In Hinged	17	123976X	Locknut, Flange 1/4 Gr. 5
6	STD541437	Nut	21	171852	Bolt, Shoulder 5/16-18 unc
7	124181X	Spring, Seat	22	STD541431	Nut
8	17000616	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.			
10	180186	Pan, Seat			
11	166369	Knob Seat	NOTE	E: All compor	ent dimensions given in U.S.
12	121246X	Bracket, Switch Mounting			h = 25.4 mm

#### **DECALS**



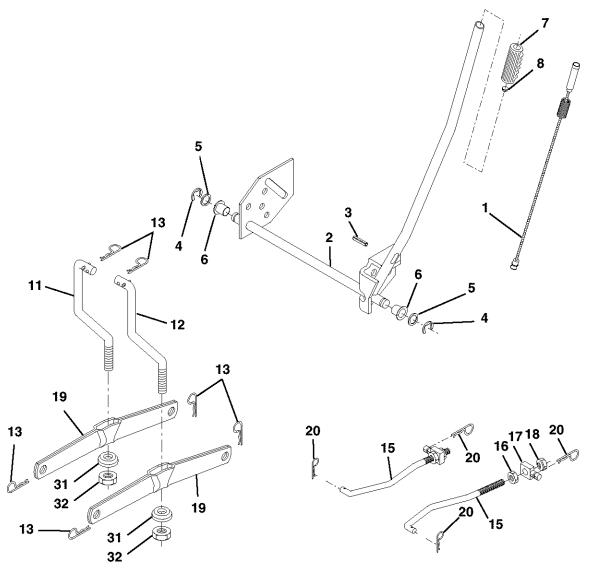
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	156368	Decal, Oper. Instr.	13	183827	Decal, Lower Dash
3	184728	Decal, Hood, R.H.	14	160396	Decal, V-Belt Schematic
4	184729	Decal, Hood, L.H.	15	189100	Decal, Engine
5	190813	Decal, Hood Replacement	16	138047	Decal, Battery Diehard
6	133644	Decal, Customer Maintenance	20	149516	Decal, Battery Dngr/Psn Eng
7	184730	Decal, Hood Side		138311	Decal, Lift Handle
8	172331	Decal, Deck		184310X428	Pad, Footrest LH STLT
9	184899	Decal, Fender, Craftsman		184311X428	Pad, Footrest RH STLT
10	156439	Decal, Fender Danger		192721	Owner's Manual, English
11	179128	Decal, Deck "B" 42"		192722	Owner's Manual, Spanish
12	146046	Decal, V-Belt Drive Schematic			· •

#### **WHEELS & TIRES**



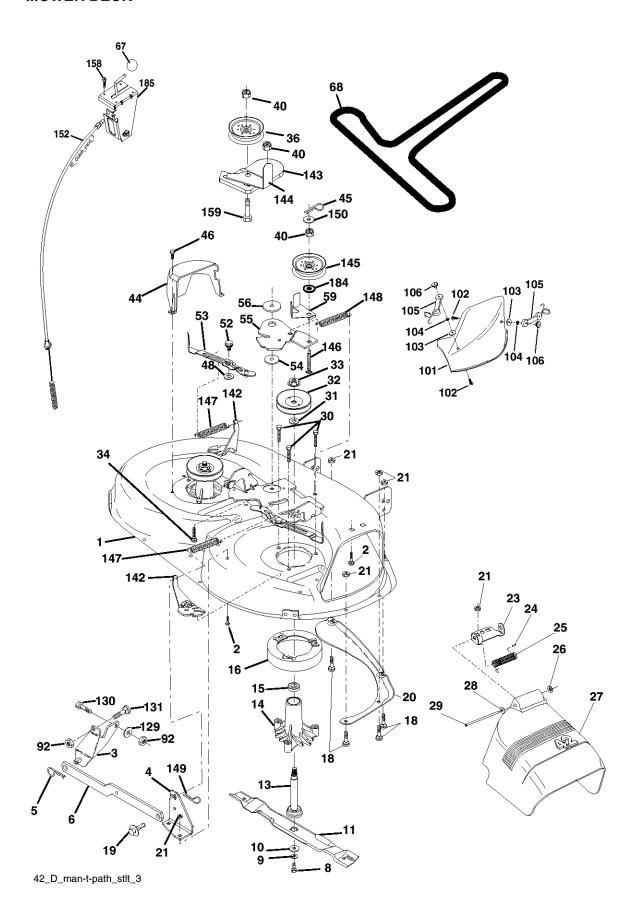
KEY NO.	PART NO.	DESCRIPTION				
1	59192	Valve Cap, Tire				
2	65139	Stem, Valve				
2 3	106222X	Tire, Front				
4	59904	Tube, Front Tire				
		(Not Provided, Service Item Only)				
5	106732X624	Rim, Front				
6	278H	Fitting, Grease (Front Wheel Only)				
7	9040H	Bearing, Flange (Front Wheel				
		Only)				
8	106108X624	Rim, Rear				
9	106268X	Tire, Rear				
10	7152J	Tube, Rear Tire				
		(Not Provided, Service Item Only)				
11	104757X428					
	144334	Sealant, Tire 10 oz.				
NOTE	NOTE: All component dimensions given in U.S.					

#### LIFT ASSEMBLY



KEY	PART		KEY	PART		
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION	
1	159460	Lift Lever Inner Wire Assembly	16	73350800	Nut, Hex, Jam 1/2-13 unc	
2	159471	Shaft Assembly, Lift	17	175689	Trunnion	
3	105767X	Pin, Groove	18	73800800	Locknut, Hex, with Washer Insert	
4	12000002	E-Ring			1/2-13 unc	
5	19211621	Washer 21/32 x 1 x 21 Ga.	19	139868	Arm, Suspension, Rear	
6	120183X	Bearing, Nylon	20	163552	Retainer Spring	
7	125631X	Grip, Handle, Fluted	31	169865	Bearing, Pvt, Lift	
8	122365X	Button, Plunger, Red	32	73540600	Nut, Crownlock 3/8-24	
11	139865	Link, Lift, L.H.				
12	139866	Link, Lift, R.H.	NOTE: All component dimensions given in U.S. inche			
13	STD624008	Retainer Spring				
15	173288	Link, Front		1 HIGH == 25.	4 11111	

#### **MOWER DECK**

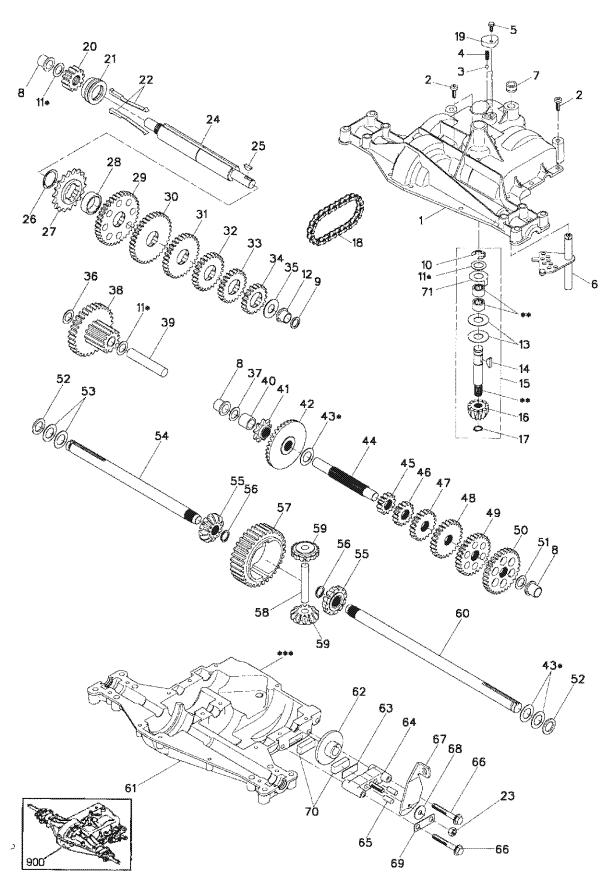


#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	165892	Mower Deck Assembly, 42"	48	133944	Washer, Hardened
2	STD533107	Bolt	52	139888	Bolt, Shoulder 5/16-18 unc
2 3	138017	Bracket Assembly, Sway Bar, Front	53	184907	Arm Assembly, Pad, Brake
4	165460	Bracket Sway Bar 38/42" eck	54	178515	Washer, Hardened
5	STD624008	Retainer Spring	55	155046	Arm, Idler
6	178024	Bar Sway Deck	56	165723	Spacer, Retainer
8	850857	Bolt, Hex 3/8-24 x 1.25 Gr. 8	59	141043	Guard, TUV Idler
9	STD551137	Washer, Lock	67	149846	Knob Custom Oval
10	140296	Washer, Hardened	68	144959	V-Belt
		(The following blades are avail	92	73800600	Nut Lock Hex w/Ins. 3/8-16
		able)	101	136420	Mulcher Cover
11	134149	Blade, Mulching	102	71081010	Screw Pan Hd Phillips 10-24 x 5/8
		(For mulching mowers only)	103	19061216	Washer #10
	139775	Blade, 42" Mulching Premium	104	STD551110	·
		(For better wear when mulching)	105	160793	Latch Assembly, Bagger
	138971	Blade, 42" Hi-Lift	106	2029J	Nut, Weld
		(For bagging or discharging)	129	19131312	Washer 13/32 x 13/16 x12 Ga.
13	137645	Shaft Assembly, Mandrel, Vented	130	STD523710	Bolt, Fin Hex 3/8-16 unc x1 Gr. 5
14	128774	Housing, Mandrel, Vented	131	STD533710	Bolt, Rdhd Sqnk 3/8-16 unc x 1
15	110485X	Bearing, Ball, Mandrel	142	165890	Arm Spring Brake Mower
16	174493	Stripper, Mower Deck	143	157109	Bracket Arm Idler 42"
18	72140505	Bolt, Carriage 5/16-18 x 5/8	144	158634	Keeper Belt 42" Clutch Cable
19	132827	Bolt, Shoulder	145	165888	Pulley Idler Flat
20	159770 STD541431	Baffle, Vortex Nut Crownlock 5/16-18 unc	146 147	171977 131335	Bolt Carriage Idler
21 23	177563		148	169022	Spring Extension Spring Return Idler
23 24	105304X	Bracket, Deflector Cap, Sleeve	149	165898	Retainer Spring Yellow Zinc
25	123713X	Spring, Torsion, Deflector	150	19091210	Washer 9/32 x 3/4 x 10 Ga.
26	110452X	Nut, Push	152	169676	Cable Clutch 42 In
27		Shield, Deflector	158	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	159	72140614	Bolt Rdhd Sqn 3/8-16 unc x 1-3/4
29	131491	Rod, Hinge	184	19131410	Washer 13/32 x 7/8 x 10 Ga.
30	173984	Screw Thdrol DOD PT Hex	185	188234	Head Assy. Cable Clutch
31	187690	Washer, Spacer		130794	Mandrel Assembly (Includes
32	153535	Pulley, Mandrel			housing, shaft and shaft hardware
33	178342	Nut, Toplock, Flanged			only-pulley not included)
34	72110612	Bolt Carr. Sh. 3/8-16 x 1-1/2 Gr. 5		169583	Replacement Mower, Complete
36	131494	Pulley, Idler, Flat			(Std. Deck-Order separately
40	73900600	Nut Lock Flg. 3/8-16 unc			mulcher cover components key
44	140088	Guard, Mandrel, L.H.			nos. 101-106)
45	STD624003	Retainer	NIOT	E. Allasman	ant dimensions siven in LLC inches
46	137729	Screw, Thd. Roll 1/4-20 x 5/8	NŲI	All compor 1 inch = 25.	nent dimensions given in U.S.inches 4 mm

1 inch = 25.4 mm

#### TRACTOR - - MODEL NUMBER 917.273397 DANA TRANSAXLE - - MODEL NUMBER D4360-140

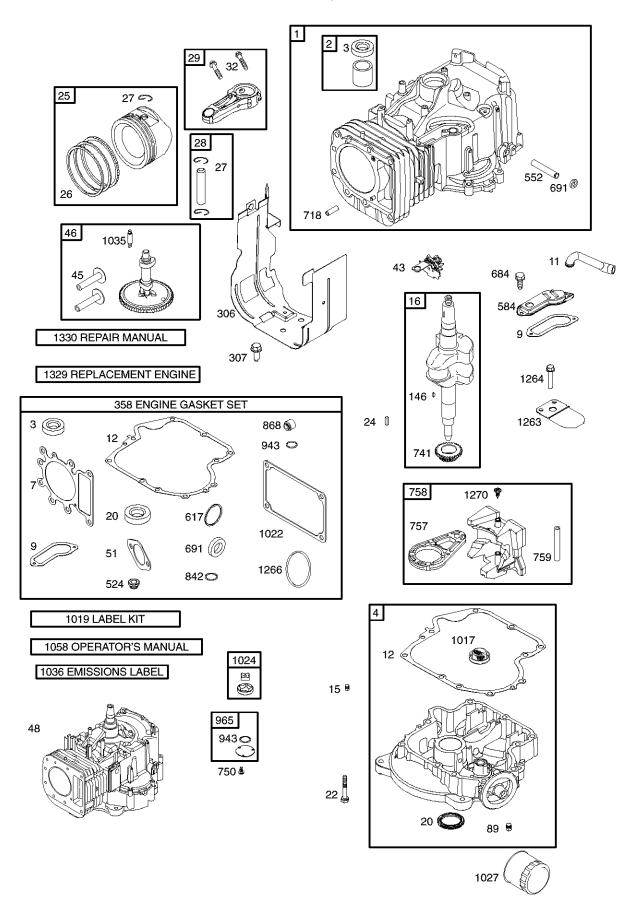


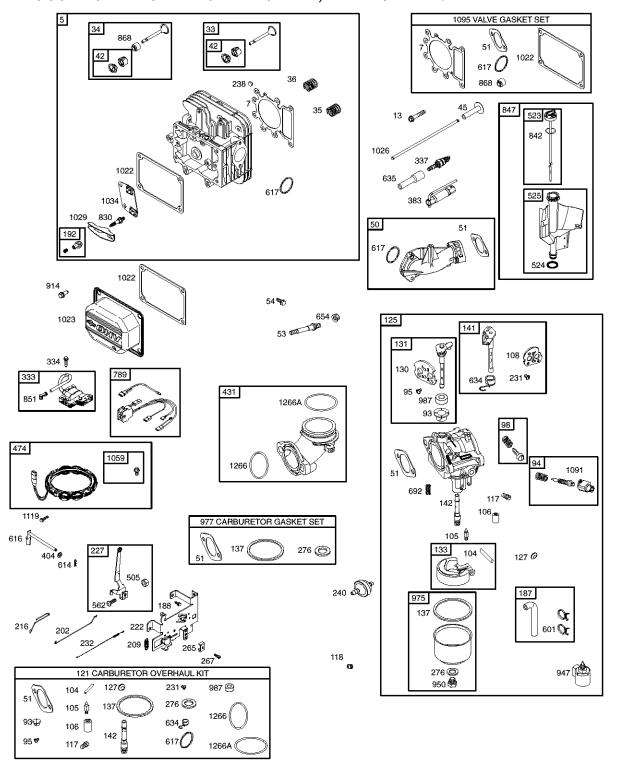
#### TRACTOR - - MODEL NUMBER 917.273397 DANA TRANSAXLE - - MODEL NUMBER D4360-140

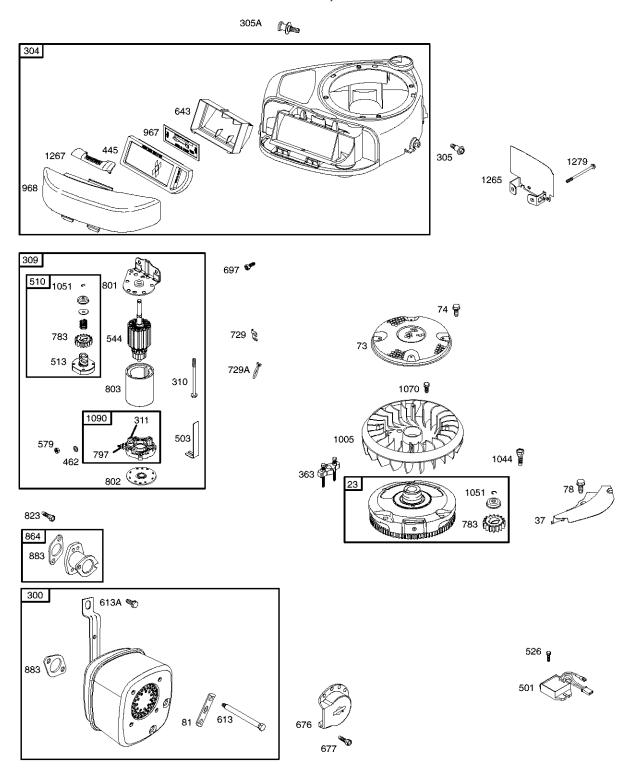
Key No.	Part No.	Description	Key No.	Part No.	Description
		•			
1	170981	Housing, Upper	40	120472X	Spacer, .633 X .87 X .755
2	2274J	Screw, Tapping, 1/4-20 X .734	41	105928X	Sprocket, 9T
3	134400	Ball, Detent	42	170988	Gear, Bevel, 36T
4	105904X	Spring, Detent	43	134394	*Assy, Kit, Shim, .750 Shaft
5	160940	Screw, Tapping, No. 10-24 X .482	44	120473X	Shaft, Drive
6	138235	Assy, Kit, Shifter	45	142678	Gear, Spur, 12T
7	108727X	V-Ring	46	143697	Gear, Spur, 15T
8	148266	Bearing, Flange	47	124641X	Gear, Spur, 20T
9	148269	Seal, Oil	48	106589X	Gear, Spur, 25T
10	2225J	Ring, Retaining	49	120408X	Gear, Spur, 28T
11	134793	*Assy, Kit, Shim, .625 Shaft	50	105937X	Gear, Spur, 31T
12	148268	Bearing, Flange	51	2226J	Washer, Plain, .632 X 1.00 X .060
13	120415X	Washer, Plain, .632 X 1.38 X .046	52	134401	Washer, Neoprene
14	142674	Key, Woodruff, No. 9	53	2264J	Washer, Plain, .758 X 1.25 X .031
15	170983	Assy, Kit, Input Shaft	54	160946	Axle, LH
16	170986	Pinion, Bevel, 12T	55	170990	Gear, Miter, 1 2T, Splined
17	105909X	Ring, Retaining	56	160948	Ring, Retaining
18	105910X	Chain, 24 Pitches	57	110071X	Gear, Spur, 32T
19	160942	Cover, Detent	58	120952X	Shaft, Cross
20	160943	Gear, Spur, 1 2T	59	170991	Gear, Miter, 1 2T, Idler
21	148267	Collar, Clutch	60	160950	Axle, RH
22	138236	Assy, Kit, Clutch Keys	61	170992	Housing, Lower
23	73810500	Nut, Lock, 5/16-24	62	7294J	Disc, Brake
24	142676	Shaft, Intermediate	63	108989X	Spacer, Brake Puck
25	2244J	Key, Woodruff, No. 61	64	160952	Jaw, Brake
26	105916X	Ring, Retaining	65	120954X	Pin, Dowel
27	12047OX	Sprocket, 1 8T	66	160953	Screw, Tapping, 5/16-18 X 2.35
28	110070X	Spacer, 1. 131 X 1.45 X .494	67	138244	Lever, Actuating
29	142677	Gear, Spur, 37T	68	108996X	Washer, Plain, .321 X 1.00 X .055
30	142681	Gear, Spur, 35T	69	160954	Bracket, Anti-Rotation
31	124644X	Gear, Spur, 30T	70	120951X	Puck, Friction
32	108980X	Gear, Spur, 25T	71	174256	Washer, Anti Rotation
33	120406X	Gear, Spur, 22T	72	120416X	Grease
34	134796	Gear, Spur, 19T			
35	105925X	Washer, Plain, .640 X 1.37 X .061	NOTE:	All compone	nt dimensions given in U.S. inches
36	2228J	Washer, Plain, .632 X 1.00 X .046		1  inch = 25.4	4 mm
37	170987	Washer, Plain, .632 X 1.00 X .031			
38	174255	Assy, Gear, Comb., 12T & 30T	* Use ir	n various com	binations to maintain proper
39	124639X	Shaft, Idler		ances.	

<sup>\*\*</sup> Order Key No. 15.

<sup>\*\*\*</sup> Silicone Sealant to be applied between Upper and Lower Housings (use Loctite Ultra Gray Silicone 5699 or equivalent).







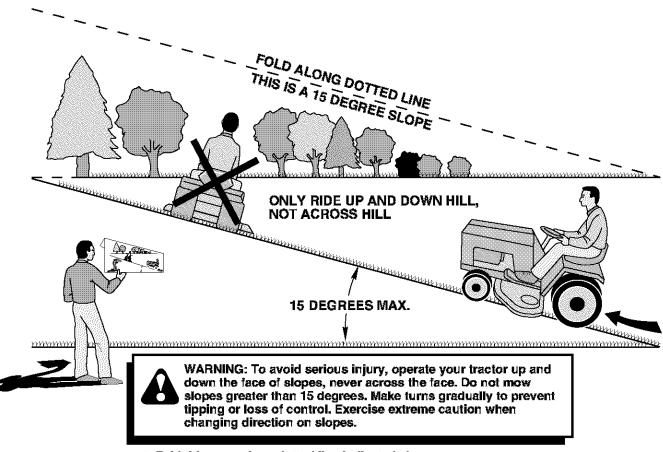
BRIGGS ENGINE-MODEL NOMBER 31H///, I TPE NOMBER 0112-E1							
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION		
1	697174	Cylinder Assembly	130	691750	Valve-Throttle		
2	399265	Kit-Bushing/Seal (Magneto Side)	131	494379	Kit-Throttle Shaft		
3	391086 •	Seal-Oil (Magneto Side)	133	494381	Float-Carburetor		
4	697188	Sump-Engine	137	281165 ؇	Gasket-Float Bowl		
5	698147	Head-Cylinder	141	495097	Kit-Choke Shaft		
7	699168 •+	Gasket-Cylinder Head	142	697140 Ø	Nozzle-Carburetor		
9	697109 •	Gasket-Breather	146	691639	Key-Timing		
11	697113	Tube-Breather	187	697098	Line-Fuel		
12	697110 •	Gasket-Crankcase	188	691693	Screw (Control Bracket)		
13	690360	Screw (Cylinder Head)	192	691986	Adjuster-Rocker Arm		
15	690946	Plug-Oil Drain	202	691841	Link-Mechanical Governor		
16	697127	Crankshaft	209	692208	Spring-Governor		
20	690947 •	Seal-Oil (PTO Side)	216	691840	Link-Choke		
22	692125	Screw (Crankcase Cover/Sump)	222	694042	Bracket-Control		
23	693556	Flywheel	227	691374	Lever-Governor Control		
24	222698	Key-Flywheel	231	691636	Screw (Choke Valve)		
25	699052	Piston Assembly (Standard)	232	691842	Spring-Governor Link		
	699054	Piston Assembly (.020"	238	691843	Cap-Valve		
00	000054	Oversize)	240	394358	Filter-Fuel		
26	699051	Ring Set (Standard)	265	691024	Clamp-Casing		
27	697559 698469	Ring Set (.020" Oversize) Lock-Piston Pin	267	695134	Screw (Casing Clamp)		
28	697099	Pin-Piston	276	692255 ؇	Washer-Sealing		
29	697099	Rod-Connecting (Standard)	300 304	698356	Muffler		
20	697263	Rod-Connecting (.020"	305	698804 697102	Housing-Blower Screw (Blower Housing)		
	007200	Undersize)	305A	697103	Screw (Blower Housing)		
32	692852	Screw (Connecting Rod)	306	697107	Shield-Cylinder		
33	695760	Valve-Exhaust	307	691003	Screw (Cylinder Shield)		
34	695761	Valve-Intake	309	693551	Motor-Starter		
35	691279	Spring-Valve (Intake)	310	690323	Bolt (Starter Motor)		
36	691279	Spring-Valve (Exhaust)	311	497608	Brush Set		
37	697108	Guard-Flywheel	333	495859	Armature-Magneto		
42	499586	Keeper-Valve	334	691061	Screw (Magneto Armature)		
43	691968	Slinger-Governor/Oil	337	491055	Plug-Spark		
45	690564	Tappet-Valve	358	697191	Gasket Set-Engine		
46	698492	Camshaft	363	19203	Puller-Flywheel		
48	697762	Short Block	383	89838	Wrench-Spark Plug		
50	690193	Manifold-Intake	404	691691	Washer (Governor Crank)		
51		Gasket-Intake	431	697122	Elbow-Intake		
53 54	690227 691148	Stud (Carburetor)	445	698083	Filter-Air Cleaner Cartridge		
54 73	697133	Screw (Intake Manifold) Screen-Rotating	462	691261	Washer (Starter Cable)		
73 74	697897	Screw (Rotating Screen)	474 501	696457 691188	Alternator Regulator		
78	691003	Screw (Flywheel Guard)	503	691532	Strap-Starter		
81	691178	Lock-Muffler Screw	505 505	691251	Nut (Governor Control Lever)		
89	690283	Plug-Oil	510	693699	Drive-Starter		
93	690602 Ø	Bushing-Throttle Shaft	513	692024	Clutch-Drive		
94	498030	Kit-Idle Mixture	523	697086	Dipstick		
95	691636	Screw (Throttle Valve)		******			
98	495800	Kit-Idle Speed	•	Engine Gaske	et Set, Key. No. 358		
104	690525 Ø	Pin-Float Hinge	Ø		verhaul Kit, Key. No. 121		
105	231855 Ø	Valve-Float Needle	‡	Carburetor G	asket Set, Key. No. 977		
106	690577 Ø	Seat-Inlet	+	Valve Gasket	Set, Key. No. 1095		
108	690464	Valve-Choke					
117	694352 Ø	Jet-Main (Standard)	NOTE:	All componer	nt dimensions given in U.S. inches		
118	697228	Jet-Main (High Altitude)			1 inch = 25.4 mm		
121	697241	Kit-Carburetor Overhaul					
125	698445	Carburetor					
127	695005	Plug-Welch					

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
524	691032 •	Seal-Dipstick Tube	950	691657	Screw-Float Bowl
525	697184	Tube-Dipstick	965	499613	Cover-Oil Pump
526	697088	Screw (Regulator)	967	697015	Filter-Pre Cleaner
544	692034	Starter-Armature	968	697084	Cover-Air Cleaner
552	697144	Bushing-Governor Crank	975	495933	Bowl-Float
562	691119	Bolt (Governor Control Lever)	977	690192	Gasket Set-Carburetor
579	691029	Nut (Starter Cable)	987	691326 Ø	Seal-Throttle Shaft
584	697112	Cover-Breather Passage	1005	697111	Fan-Flywheel
601	95162	Clamp-Hose	1017	690770	Screen-Oil Pump
613	691416	Screw (Muffler)	1019	698814	Kit-Label
613A	691678	Screw (Muffler)	1022	272475 •+	Gasket-Rocker Cover
614	691620	Pin-Cotter	1023	692492	Cover-Rocker Arm
616	692012	Crank-Governor	1024	499054	Pump-Oil
617	692138 Ø •	Seal-O Ring (Intake Manifold)	1026	692003	Rod-Push (Intake)
634	690801 Ø	Spring/Seal Assembly		692011	Rod-Push (Exhaust)
635	691909	Boot-Spark Plug	1027	492932	Filter-Oil
643	698401	Retainer-Air Filter	1029	691751	Arm-Rocker
654	690958	Nut (Carburetor)	1034	690822	Guide-Push Rod
676	393761	Deflector-Muffler	1035	693784	Shaft-Pump
677	690661	Screw (Muffler Deflector)	1036	695700	Label-Emissions
684	697157	Screw (Breather Passage Cover)	1044	698139	Screw (Flywheel)
691	692407 •	Seal-Governor Shaft	1051	691265	Ring-Retaining
692	690572	Spring-Detent	1058	275935	Operator's Manual
697	690372	Screw (Drive Cap)	1059	698516	Kit-Screw/Washer
718	690959	Pin-Locating	1070	690372	Screw (Flywheel Fan)
729	691224	Clip-Wire	1090	691293	Retainer-Brush
729A	691223	Clip-Wire	1091	691333	Cap-Limiter
741	697128	Gear-Timing	1095	690190	Gasket Set-Valve
750	691033	Screw (Oil Pump Cover)	1119 1263	691183 697124	Screw (Alternator) Reed-Breather
757	697607	Link-Counterweight	1264	697124	Screw (Breather Reed)
758	697134	Counterweight	1265	697125	Support-Blower Housing
759	697392	Pin-Counterweight	1266	691917 •Ø	Seal-O Ring (Intake Elbow)
783	693713	Gear-Pinion		697123 Ø	Seal-O Ring (Intake Elbow)
789	698329	Harness-Wiring	1267	697135	Latch-Blower Housing
797	693167	Nut (Brush Retainer)	1270	697156	Plug-AVS Counterweight
801	691283	Cap-Drive	1279	691108	Screw (Blower Housing Support)
802	691286	Cap-End	1329		2 Replacement Engine
803	693757	Housing-Starter	1330	272147	Repair Manual
823 830	690363	Screw (Muffler Adapter)	.000		Topon manage
	691095	Stud-Rocker Arm	•	Engine Gask	et Set, Key. No. 358
842	691031 •	Seal-O Ring (Dipstick Tube) Dipstick/Tube Assembly	Ø	Carburetor C	Overhaul Kit, Key. No. 121
847	697611		‡		asket Set, Key. No. 977
851 864	692424 697346	Terminal-Spark Plug Adapter-Muffler	+ +		t Set, Key. No. 1095
868	690968 •+	Seal-Valve			· · · · · · · · · · · · · · · · · · ·
883	692236	Gasket-Exhaust	NOTE:	: All compone	ent dimensions given in U.S. inches
914	691108	Screw (Rocker Cover)		<b>F</b>	1 inch = 25.4 mm
943	690589 •	Seal-O Ring (Oil Pump Cover)			
947	694393	Solenoid-Fuel			

### SERVICE NOTES

### SERVICE NOTES

#### SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

### Get it fixed, at your home or ours!

#### **Your Home**

For repair – in your home – of all major brand appliances, lawn and garden equipment, or heating and cooling systems, no matter who made it, no matter who sold it!

For the replacement parts, accessories and owner's manuals that you need to do-it-yourself.

For Sears professional installation of home appliances and items like garage door openers and water heaters.

> 1-800-4-MY-HOME® (1-800-469-4663)

www.sears.com

Anytime, day or night (U.S.A. and Canada) www.sears.ca

#### **Our Home**

For repair of carry-in products like vacuums, lawn equipment, and electronics, call or go on-line for the nearest

Sears Parts and Repair Center.

**1-800-488-1222** Anytime, day or night (U.S.A. only) www.sears.com

To purchase a protection agreement (U.S.A.) or maintenance agreement (Canada) on a product serviced by Sears:

1-800-827-6655 (U.S.A.)

1-800-361-6665 (Canada)

Para pedir servicio de reparación a domicilio, y para ordenar piezas:

**1-888-SU-HOGAR**SM (1-888-784-6427)

Au Canada pour service en français:

1-800-LE-FOYERMC

(1-800-533-6937) www.sears.ca



02410

Sears, Roebuck and Co.

<sup>®</sup> Registered Trademark / ™ Trademark / SM Service Mark of Sears, Roebuck and Co.

<sup>®</sup> Marca Registrada / TM Marca de Fábrica / SM Marca de Servicio de Sears, Roebuck and Co.

MC Marque de commerce / MD Marque déposée de Sears, Roebuck and Co.