### Owner's Manual

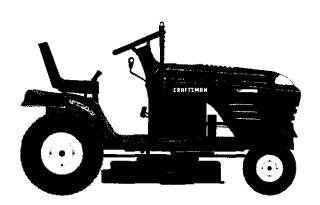
# **CRAFTSMAN®**

15.5 HP
ELECTRIC START
42" MOWER
6 SPEED TRANSAXLE
LAWN TRACTOR

Model No. 917.271053



- Safety
- Assembly
- Operation
- Maintenance
- Repair Parts





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.

#### **CAUTION:**

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

1-800-659-5917

Sears Craftsman Help Line 5 am - 5 pm, Mon - Sat

Sears, Roebuck and Co., Hoffman Estates, II 60179

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

# TABLE OF CONTENTS Warranty 2 Maintenance 17 Safety Rules 3 Service and Adjustments 21 Product Specifications 6 Storage 27 Assembly 8 Troubleshooting 28 Operation 11 Repair Parts 32 Maintenance Schedule 17 Parts Ordering Back Cover

#### WARRANTY

LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT PARTS For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship. Warranty service is available free of charge by taking your Craftsman riding equipment to your nearest Sears Service Center. In-home warranty service is available but a trip charge will apply. This warranty applies only while this product is in the United States.

This Warranty does not cover:

- Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts and oil filters.
- 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 the 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 thirty (30) days of its purchase date.
- Riding equipment used for commercial or rental purposes.

#### LIMITED 90 DAY WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge. Warranty service is available free of charge by taking your Craftsman riding equipment to your nearest Sears Service Center. In-home warranty service is available but a trip charge will apply. This warranty applies only while this product is in the United States.

TO LOCATE THE NEAREST SEARS SERVICE CENTER OR TO SCHEDULE INHOME WARRANTY SERVICE, SIMPLY CONTACT SEARS AT 1-800-4-MY-HOME

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

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

#### SAFETY RULES

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

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- · Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone.
   Do not operate the mower without either the entire grass catcher or the guard in place.
- Šlow 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 mowerrelated injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

#### II. SLOPE OPERATION

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

#### DO:

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

#### DO NOT:

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

#### SAFETY RULES

#### 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 comers, 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.











- 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.

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#### SAFETY RULES

 Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.

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

 If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.

 Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

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

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

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

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

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

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

#### PRODUCT SPECIFICATIONS

(BELOW 32°F)  OIL CAPACITY: W/FILTER: 4.0 PINTS W/OFILTER: 3.5 PINTS  SPARK PLUG: CHAMPION RC12YC  (GAP: .040")  VALVE CLEARANCE: NOT ADJUSTABLE  GROUND SPEED FORWARD: (MPH): 1 <sup>ST</sup> 1.2 2 <sup>NO</sup> 1.5 3 <sup>RD</sup> 2.4 4 <sup>TH</sup> 3.5 5 <sup>TH</sup> 4.8 6 <sup>TH</sup> 5.3 REVERSE: 1.5  TIRE PRESSURE: FRONT: 14 PSI REAR: 10 PSI  CHARGING
OIL TYPE SAE 10W30 (ABOVE 32°F)  (API-SF-SJ): SAE 5W-30 (BELOW 32°F)  OIL CAPACITY: W/FILTER: 4.0 PINTS W/OFILTER: 3.5 PINTS  SPARK PLUG: CHAMPION RC12YC (GAP: .040")  VALVE CLEARANCE: NOT ADJUSTABLE  GROUND SPEED FORWARD: (MPH): 1 <sup>ST</sup> 1.2 2 <sup>NO</sup> 1.5 3 <sup>RD</sup> 2.4 4 <sup>TH</sup> 3.5 5 <sup>TH</sup> 4.8 6 <sup>TH</sup> 5.3 REVERSE: 1.5  TIRE PRESSURE: FRONT: 14 PSI REAR: 10 PSI  CHARGING SYSTEM: 15 AMPS @ 3600 RPM  BATTERY: AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R  BLADE BOLT 27–35 FT. LBS.
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**CONGRATULATIONS** on your purchase of a 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 qualifyed 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".

#### REPAIR AGREEMENT

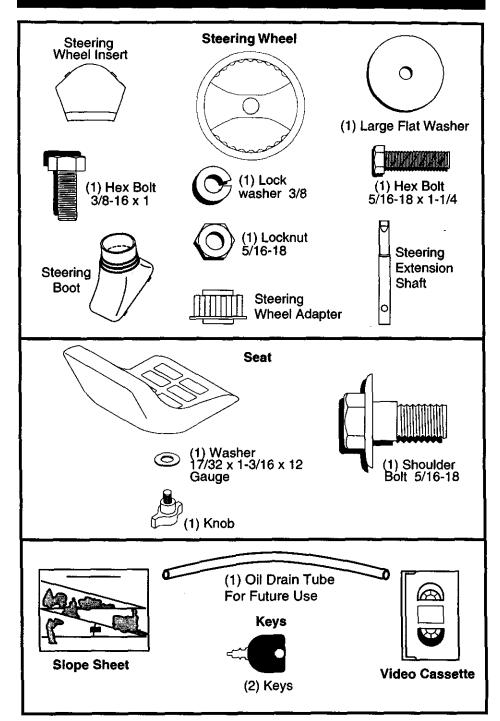
A Repair Agreement is available on this product. Contact your nearest Sears store for details.

#### **CUSTOMER RESPONSIBILITIES**

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

A WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brushcovered 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).

# **UNASSEMBLED PARTS**



#### **ASSEMBLY**

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness. 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) 9/16" wrench
- (1) Pliers
- (2) 1/2" wrench
- (1) Utility knife
- (1) Tire pressure gauge

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

# TO REMOVE TRACTOR FROM CARTON

#### **UNPACK CARTON**

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

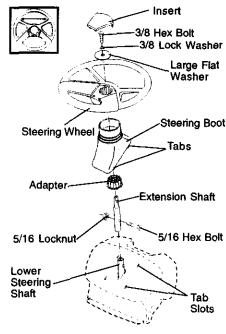
# BEFORE REMOVING TRACTOR FROM SKID ATTACH STEERING WHEEL

# ASSEMBLE EXTENSION SHAFT AND BOOT

- Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.
- 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.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.



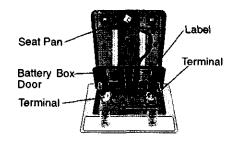
- Assemble large flat washer, 3/8 lock washer, 3/8 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

# HOWTO SET UPYOURTRACTOR CHECK BATTERY

 Lift seat pan to raised position and open battery box door.

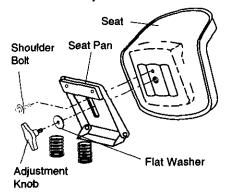
NOTE: If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in Maintenance section of this manual for charging instructions).



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



**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 ROLLTRACTOR OFF SKID (See Operation section for location and function of controls)

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

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

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

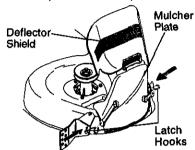
- Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place gear shift lever in neutral (N) position.
- Press lift lever plunger and raise attachment 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.
- 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 "OFF" position. Continue with the instructions that follow.

#### **INSTALL MULCHER PLATE**

#### (If previously removed)

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

ACAUTION: Do not remove deflector shield from mower. Raise and hold shield when attaching mulcher plate and allow it to rest on plate while in operation.



# TO CONVERT TO BAGGING OR DISCHARGING

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

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

#### **CHECKTIRE 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 bells. 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.



BATTERY



CAUTION OR WARNING



REVERSE



FORWARD





SLOW



ENGINE ON



**ENGINE OFF** 



OIL PRESSURE



LIGHTS ON



**FAST** 

OVER TEMP



LIGHT





CHOKE





MOWER HEIGHT PARKING BRAKE LOCKED



UNLOCKED



MOWER LIFT











ATTACHMENT CLUTCH ENGAGED

REVERSE

NEUTRAL

HIGH

LOW

PARKING BRAKE















CLUTCH DISENGAGED

KEEP AREA CLEAR

(SEE SAFETY RULES SECTION)



DANGER, KEEP HANDS AND FEET AWAY

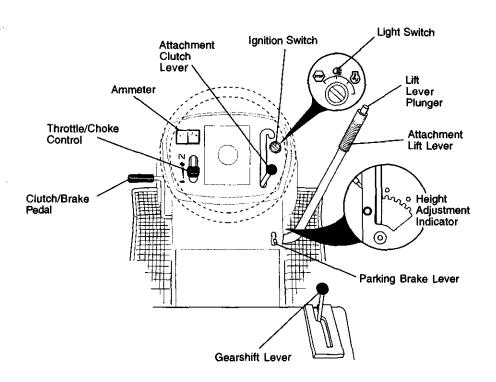


FREE WHEEL (Automatic Models only)

#### **KNOW YOURTRACTOR**

#### **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 LEVER - 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** - 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.



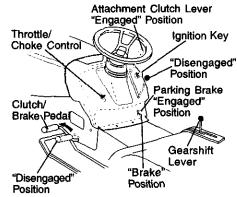
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety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

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



#### STOPPING

#### **MOWER BLADES -**

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

#### **GROUND DRIVE -**

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

#### **ENGINE-**

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

**IMPORTANT:** Leaving the ignition switch in any position other than "OFF" will cause the battery to be discharged, (dead).

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

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

#### TO USE THROTTLE CONTROL

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.
- 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.

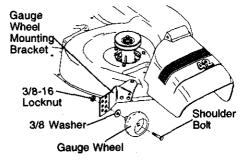
- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first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

#### TO ADJUST GAUGE WHEELS

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

NOTE: Adjust gauge wheels with tractor on a flat level surface.

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



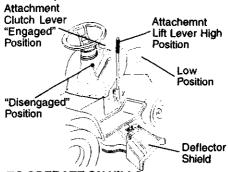
#### TO OPERATE MOWER

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

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

TO STOP MOWER BLADES - disengage attachment clutch control.

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



#### TO OPERATE ON HILLS

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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear. 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 ATTACHMENTS

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

# BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL

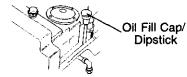
The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.

 Check engine oil with tractor on level ground.

 Unthread and remove oil fill cap/ dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.

 For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Maintenance section of this manual).

 To change engine oil, see the Maintenance section in this manual.



#### **ADD GASOLINE**

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

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

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

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

#### 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.

Place gear shift lever in neutral (N) position.

Move attachment clutch to "DISEN-GAGED" position.

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)

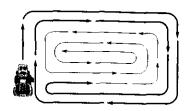
When engine starts, move the throttle control to the fast position.

 The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above. COLD WEATHER STARTING (50° F and below)

- When engine starts, allow engine to run with the throttle control in the choke position until the engine runs roughly, then move throttle control to fast position. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.
- 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.

#### **MOWINGTIPS**

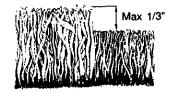
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished.
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle
  when mowing to assure better mowing
  performance and proper discharge of
  material. Regulate ground speed by
  selecting a low enough gear to give the
  mower 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 MOWINGTIPS**

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

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet.
  Wet grass tends to form clumps and
  interferes with the mulching action.
  The best time to mow your lawn is the
  early afternoon. At this time the grass
  has dried and the newly cut area will
  not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades. For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.



#### **MAINTENANCE**

AS	MAINTENANCE SCHEDUL LL IN DATES YOU COMPLETE GULAR SERVICE	.E	EFORE	VERY &	NERY?	SHOURE VERY S	HOUR	S HOUS SO HOUS WERN S	e ASON E ASON	SER	IVICE	DAT	ES
	Check Brake Operation	V	1					"	Γ				
	Check Tire Pressure	1	1						Γ	П		Г	
т	Check Operator Presence and Interlock Systems	~											
Ŗ	Check for Loose Fasteners	1/				1/7		1	Ī	T			
Ä	Sharpen/Replace Mower Blades			V.						Ι.			
Ç	Lubrication Chart			1		l		1			Г		
6	Check Battery Level			<b>V</b> .					Г				
R	Clean Battery and Terminals			1				1					
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į	Adjust Blade Belt(s) Tension	Т	Ι.			<b>V</b> <sub>5</sub>							
	Adjust Motion Drive Belt(s) Tension		T			1/5			Π		Γ		
	Check Engine Oil Level	V	1	"-				L					
	Change Engine Oil		Ī	12,3				1	Γ				
E	Clean Air Filter			1/2					T_				_
Ñ	Clean Air Screen	7		<b>√</b> 2					Γ				
G	Inspect Muffler/Spark Arrester	1			1				Γ	T			
ľ'n	Replace Oil Filter (If equipped)			]		V1.2							
Ë	Clean Engine Cooling Fins					<b>V</b> <sub>2</sub>							
Ι-	Replace Spark Plug					V	1		$\Gamma$	1.			
	Replace Air Fitter Paper Cartridge					1/2			Γ	I			
	Replace Fuel Filter	$\top$	Τ				1		Τ	ΤΞ	T		

- Change more often when operating under a heavy load or in high ambient temperatures.
   Service more often when operating in dirty or dusty conditions.
   If equipped with of litter, change oil every 50 hours.
   Replace blades more often when mowing in sandy soil.

#### **GENERAL RECOMMENDATIONS**

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your tractor.

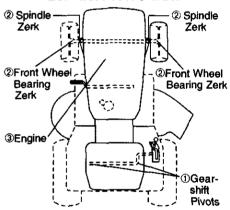
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

#### **BEFORE EACH USE**

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

#### **LUBRICATION CHART**



**®SAE 30 or 10w30 MOTOR OIL @GENERAL PURPOSE GREASE** ③REFER TO Maintenance "ENGINE" SECTION **IMPORTANT:** Do not oil or grease the pivo! 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 attachment clutch control is in the disengaged position.
- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

#### **BLADE CARE**

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

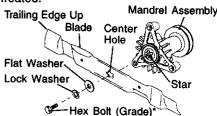
#### **BLADE REMOVAL**

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

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

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

IMPORTANT: Blade bolt is grade 8 heat treated.



\*A Grade 8 heat treated bolt can be identified by six lines on the bolt head.

#### 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 18 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.

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

#### V-BELTS

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

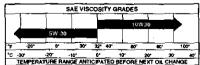
#### TRANSAXLE COOLING

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

#### **ENGINE**

#### **LUBRICATION**

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



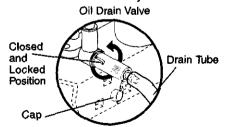
Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year.

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 SF-SJ.

- · Be sure tractor is on level surface.
- · Oil will drain more freely when warm.
- · Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove 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.
- Remove the drain tube and replace the cap onto to the end of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- 8. Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.



#### **CLEAN AIR SCREEN**

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

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

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

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

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

#### **AIR FILTER**

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

Service air cleaner more often under dusty conditions.

- Remove knob and cover.
- Remove wing nut and air cleaner from base

#### TO SERVICE PRE-CLEANER

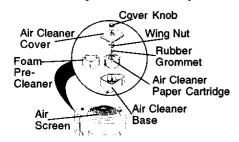
- 3. Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth. Allow it to dry.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

#### TO SERVICE CARTRIDGE

Replace a dirty, bent, or damaged cartridge.

NOTE: Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge.

- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, wing nut, cover and tighten knob securely.



#### MUFFLER

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

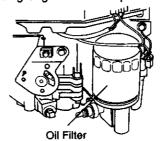
#### **SPARK PLUGS**

Replace spark plugs at the beginning a each mowing season or after every 10 hours of operation, whichever occurs fi Spark plug type and gap setting are shown in "PRODUCT SPECIFICATION section of this manual.

#### **ENGINE OIL FILTER**

Replace the engine oil filter every sea or every other oil change if the tractor i used more than 100 hours in one year

- Drain oil from engine crankcase (S
  "TO CHANGE ENGINE OIL" in this
  section of this manual, through ster
  remove drain plug).
- Remove oil filter and wipe off filter adapter.
- Apply a thin coating of new engine to the rubber gasket on replacement oil filter.
- Install replacement oil filter on filter adapter. Turn oil filter clockwise un rubber gasket contacts the filter adapter, then tighten filter an additional 1/2 turn.
- Fill crankcase with new oil (See "To CHANGE ENGINE OIL" in this sect of this manual). For approximate capacity see "PRODUCT SPECIFIC TIONS" section of this manual.
- Start the engine and check for oil leaks. Correct any leaks before placing engine into full operation.

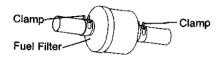


#### IN-LINE FUEL FILTER

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

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

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#### **CLEANING**

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

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

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

#### SERVICE AND ADJUSTMENTS

# A CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- 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 "OFF" 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.

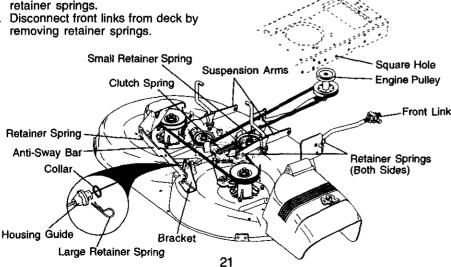
- 1. Place attachment clutch in "DISEN-GAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Remove small retainer spring, and lift clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing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

9. 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.
- Slide mower under tractor with discharge guard to right side of tractor.
- Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions



#### TO LEVEL MOWER HOUSING

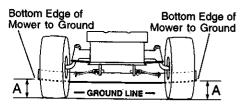
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PROD-UCT SPECIFICATIONS" section of this manual). If tires are over or underinflated, you will not properly adjust your mower.

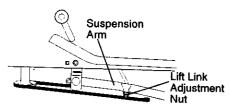
#### SIDE-TO-SIDE ADJUSTMENT

- · 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.





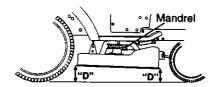
#### FRONT-TO-BACK ADJUSTMENT

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

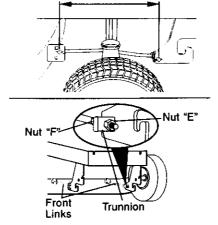
To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

Measure distance "D" directly in front an behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E on both front links an equal number c turns.
- When distance "D" is 1/8" to 1/2" lowe at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F from trunnion on both front links.
   Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lowr at front than rear, tighten nut "F" again trunnion on both front links.
- · Recheck side-to-side adjustment.



#### BOTH FRONT LINKS MUST BE EQUA IN LENGTH



## TO REPLACE MOWER BLADE DRIVE BELT

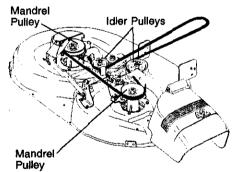
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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



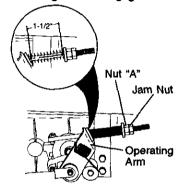
#### TO ADJUST BRAKE

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

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

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

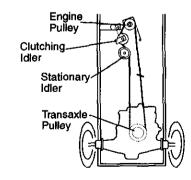
#### With Parking Brake "Engaged"



#### 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.

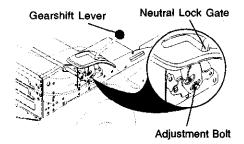
- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Pull belt toward front of tractor and remove downwards from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



# 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:

- Make sure transaxle is in neutral (N). NOTE: When the tractor rear wheels move freely, the transaxle is in neutral.
- Loosen adjustment bolt in front of the right rear wheel.
- Position the gear shift lever in the neutral (N) position.
- 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 ALIGNMENT

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

#### FRONT WHEEL TOE-IN/CAMBER

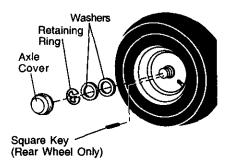
The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact a Sears or other qualified service center.

#### TO REMOVE WHEEL FOR REPAIRS

- 1. Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains 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 prew flat tires due to slow leaks, tire sealant may be purchased from your local part dealer. Tire sealant also prevents tire d rot and corrosion.



# TO START ENGINE WITH A WEAK BATTERY

**ACAUTION:** Lead-acid batteries general 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 should be recharged. (See "BATTERY" in the MAINTENANCE section of this manual). If "jumper cables" are used for emergency starting, follow this procedure:

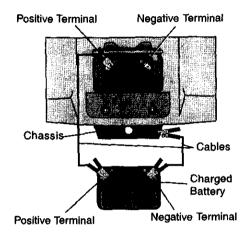
IMPORTANT: Your tractor is equipped with 12 volt negative grounded system. The othe vehical must also be a 12 volt negative grounded system. Do not use your tractor battery to start other vehicles.

#### TO ATTACH JUMPER CABLES -

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

#### TO REMOVE CABLES, REVERSE ORDER -

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

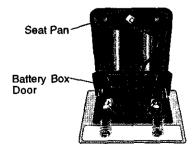


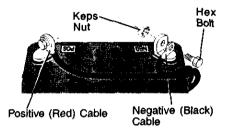
#### **REPLACING BATTERY**

terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

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

- Lift seat pan to raised position and open battery box door.
- 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.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.
- 6. Close battery box door.





#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

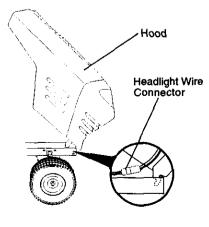
 Check wiring. See electrical wiring diagram in the Repair Parts section.

#### 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 ASSEMBLY

- 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.
- 4. To replace, reverse above procedure.



#### **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 to see if hole in throttle lever and hole in speed control bracket are aligned.
- If holes are not aligned, loosen cable clamp screw and align the holes by inserting a pencil or a 1/4" drill bit through both holes.
- Pull throttle cable up to remove slack and tighten cable clamp screw. Remove alignment pencil or drill bit.

#### TO ADJUST CARBURETOR

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows: In general, turning the adjusting needles in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles out (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture. IMPORTANT: Damage to the needles and

**IMPORTANT:** Damage to the needles and seats in carburetor may result if turned in too tight.

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.

 Be sure you have a clean air filter and the throttle control cable is adjusted properly (see above).

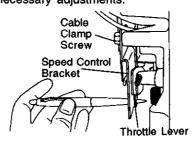
- Start engine and allow to warm for five minutes. Make adjustments with engir running and shift/motion control lever i neutral (N) position.
- Idle speed setting With throttle controllever in slow position, engine should if at 1750 RPM. If engine idles too slow of fast, turn idle speed adjusting screw in out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow position, turn idle f adjustment needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- 5. Recheck idle speed. Readjust if neces sary.

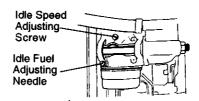
#### **ACCELERATION TEST -**

 Move throttle control lever from slow to fast position. If engine hesitates or dies turn idle fuel adjusting needle out (counterclockwise) 1/8 turn. Repeat tes and continue to adjust, if necessary, ur 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 fo proper engine speed. Overspeeding th 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 propequipment 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.

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

#### **TRACTOR**

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

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

#### BATTERY

- · Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMI-NALS" 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 deposites from forming in essential fuel system parts such as carburetor, fuel hose, or tank during storage. Also, experiance indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of and engine while in storage.

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

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

#### **ENGINE OIL**

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

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

PROBLEM	CAUSE	CORRECTION				
Will not start	Out of fuel.     Engine not "CHOKED"     properly.     Engine flooded.	Fill fuel tank.     See "TO START ENGINE"     in Operation section.     Wait several minutes     before attempting to start.				
	<ul><li>4. Bad spark plug.</li><li>5. Dirty air filter.</li><li>6. Dirty fuel filter.</li><li>7 Water in fuel.</li></ul>	<ol> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace</li> </ol>				
	Loose or damaged wiring.     Carburetor out of adjustment.	fuel filter.  8. Check all wiring.  9. See "To Adjust Carburetor" in Service Adjustments section.				
	10. Engine valves out of adjustment.	10.Contact a Sears or other qualified service center.				
Hard to start	Dirty air filter.     Bad spark plug.     Weak or dead battery.	Clean/replace air filter.     Replace spark plug.     Recharge or replace battery.				
	4. Dirty fuel filter. 5. Stale or dirty fuel.	4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline.				
	Loose or damaged wiring.     Carburetor out of adjustment.	6. Check all wiring.				
	Engine valves out of adjustment.	Contact a Sears or other qualified service center.				
Engine will not turn over	Clutch/brake pedal not depressed.     Attachment clutch is engaged.     Weak or dead battery.	Depress clutch/brake pedal.     Disengage attachment clutch.     Recharge or replace				
•	4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch.	battery. 4. Replace fuse. 5. Clean battery terminals. 6. Check all wiring. 7. Check/replace ignition switch.				
	Faulty solenoid or starter.     Faulty operator presence switch(es).	Check/replace solenoid or starter.     Contact a Sears or other qualified service center.				
Engine clicks but will not start	Weak or dead battery.     Corroded battery terminals.     Loose or damaged wiring.     Faulty solenoid or starter.	<ol> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>				

#### TROUBLESHOOTING CHART

#### TROUBLESHOOTING CHART

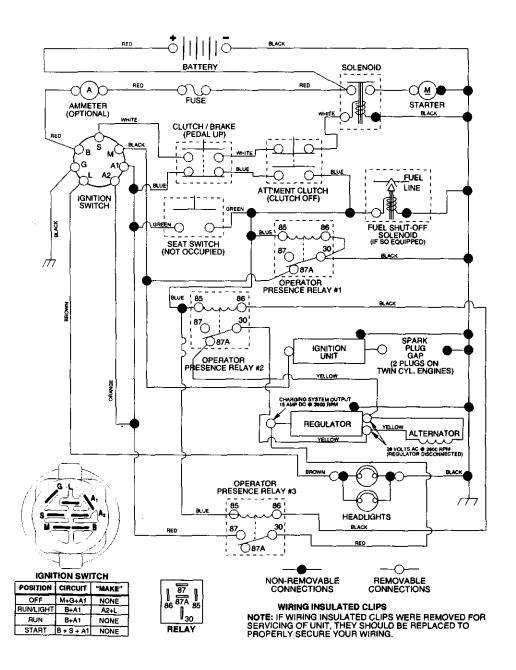
PROBLEM	CAUSE	CORRECTION				
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <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>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carbure tor, 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 engine air screen/fins.</li> <li>Clean engine air screen/fins.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact a Sears or other qualified service center.</li> </ol>				
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	Replace blade.     Tighten blade bolt.     Replace blade mandrel.     Tighten loose part(s).     Replace damaged parts.				
Engine continues to run when operator leaves seat with with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not contact a 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 bott.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>				

#### TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION					
Mower blades will not rotate	Obstruction in clutch mechanism.     Worn/damaged mower drive belt.     Frozen idler pulley.     Frozen blade mandrel.	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>					
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade.         <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 tisted 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) 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).</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 917.271053

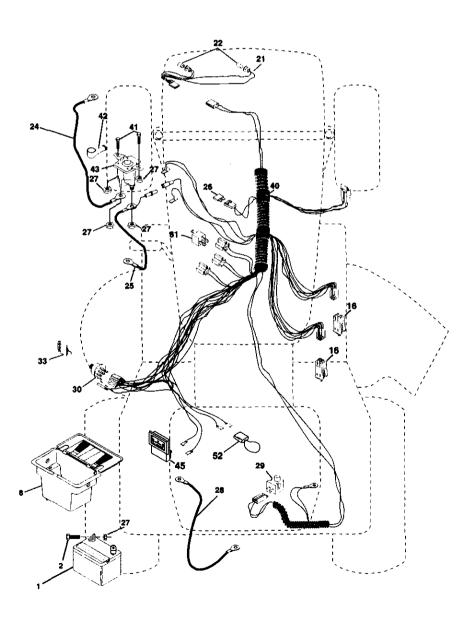
#### **SCHEMATIC**



### REPAIR PARTS

### TRACTOR -- MODEL NUMBER 917.271053

#### ELECTRICAL



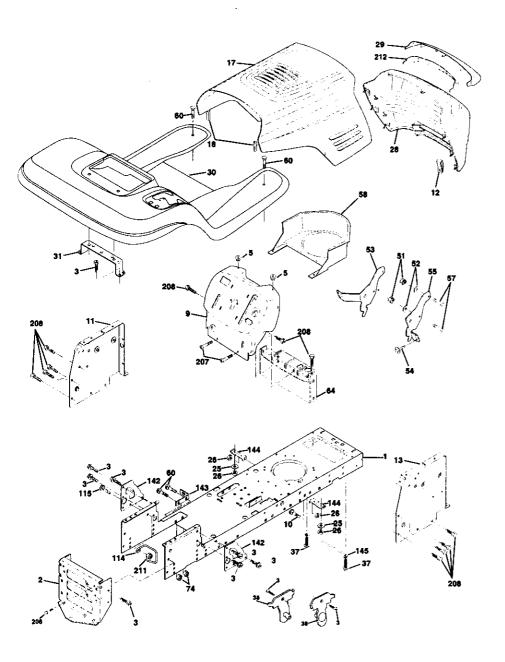
#### TRACTOR -- MODEL NUMBER 917.271053

#### **ELECTRICAL**

KEY	PART	
NO.	NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20unc x 3/4
8	156417	Case Battery
16	161343	Switch, Interlock
21	166182	Hamess Asm Light W/4152j
22	4152J	Bulb Light #1156
24	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	160784	Switch Plunger Normal Op Olive
30	175566	Switch Ign
33	140403	Key Ign
40	170219	Harness Ign
41	71110408	Bolt Blk. Fin Hex 1/4-20 Unc x 1/2
42	131563	CoverTerminal Red
43	175141	Solenoid _
45	122822X	Ammeter Rectangular
52	141940	Protection Wire Loop
81	109748X	Relay Asm

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

# TRACTOR -- MODEL NUMBER 917.271053 CHASSIS AND ENCLOSURES

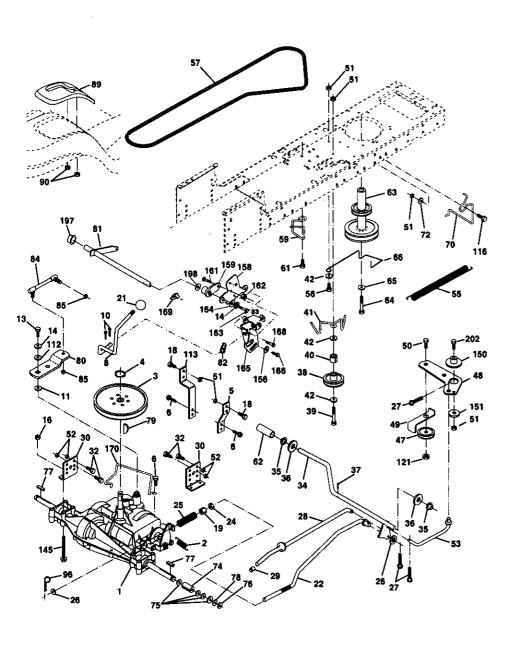


# TRACTOR -- MODEL NUMBER 917.271053 CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
1	169830	Chassis
2	169061	Drawbar
3	17060612	Screw 3/8-16 x 3/4
5	155272	Bumper Hood/Dash
9	168337X013	Dash
10	STD533710	Bolt, Cardage 3/8-16 x 3/4
11	155927	Panel, Dash, L.H.
12	145660	Clip Tinnerman Grille P/L
13	172107X010	Panel, Dash, R.H.
17	144983X558	Hood Assembly
18	126938X	BumperHood
25	19131312	Washer 13/32 x 13/16 x 12 Gauge
26	STD541437	Nut
28	156725X558	Grille /Lens Asm
29	155217X599	Lens, Grille
30	164918X558	Fend/Ftrest
31	139976	Bracket, Fender Support
37	17490508	Screw Thdrol 5/16-18 x 1/2
38	169834	Pivot Bracket Assembly, Rear
51	73800400	Nut Lock w/Insert 1/4-20 UNC
52	19091416	Washer 9/32 x 7/8 x 16 Ga.
53	145201	Bracket Grille Pickoff LH
54	161464	Screw Hex Wshd 8-18 x 7/8
55	145202	Bracket Grille Pickoff RH
57	STD522507	Bolt, Fin Hex 1/4-20 UNC x .75
58	150127	Duct Air Engine
60	72140606	Bolt Rdhd Sqnk 3/8-16 UNC x 3/4
64	154798	Dash Lower STLT
74	STD541437	Nut Crownfock 3/8016 UNC
114	158112	Keeper Belt Rear Lh Stl P930
115	17060620	Screw 3/8-16 x 1-1/4
142	165867	Plate Reinforcement STLT
143	15 <b>496</b> 6	Bracket Swaybar Chassis_
144	154207	Bracket Pnt Footrest STLT
145	156524	Rod Pivot Chassis/Hood
211	145212	Nut Hex Flange Lock
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
212	165919	Insert Lens Reflective
	5479J	Plug, Button

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

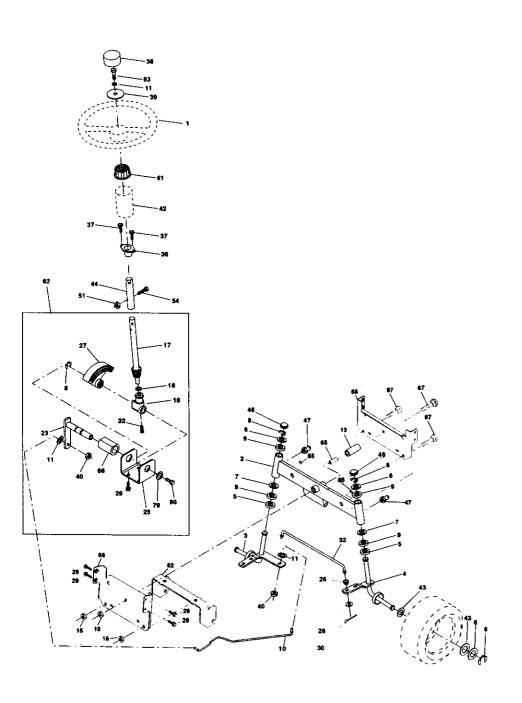
TRACTOR -- MODEL NUMBER 917.271053
GROUND DRIVE



# GROUND DRIVE

KEY	PART	•	KEY	PART	
	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1		Transaxle (See Breakdown)	65	STD551143	Washer
•	** *****	Peerless 206-545C	66	154778	Keeper, Belt, Engine, Fool
2 3	146682 123666X	Spring, Return, Brake Pulley, Transaxle	70	104000	Proof
4	12000028	Ring, Retainer	70 72	134683 19132012	Guide, Mower Drive Belt, R.H.
5	121520X	Strap, Torque	74	137057	Washer 13/32 x 1-1/4 x 12 Ga. Spacer, Axle
6	17060512	Screw 5/16-18 x 3/4	7 <del>4</del> 75	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
8	165866	Rod Shifter Fender STLT	76	STD581075	E-Ring
10	STD561210	Pin, Cotter	77	123583X	Key, Square 2.0 x .1845/1865
11	105701X	Washer, Shift Plate	78	121748X	Washer 25/32 x 1-5/8 x 16 Ga
13	74550412	Bolt 1/4-28 UNF W/Patch Gr. 8	79	STD580025	Key Woodruff
14	10040400	Washer Lock Hvy Helical	80	145090	Arm, Shift
16	STD541431	Nut Lock Hx W/ins	81	165592	Shaft Asm Cross Tapered
		5/16-18 x Gr.5			650 20
18	STD523710	Bolt Fin Hex	82	165711	Spring, Torsion
		3/8-16UNC x 1 Gr. 5	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
19	STD541437	Nut	84	166231	Link Transaxie
21	106933X	Knob	85	150360	Nut, Nylock
22 24	130804	Rod, Brake	89		Console, Shift, STLT
2 <del>4</del> 25	STD541237 106888X	Nut Spring, Brake Rod	90	124346X	Nut, Self-Thding, Wsh Hd 1/4
26 26	STD551037	Washer	96	STD624003	Retainer Spring 1"
27	STD561210	Pin	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
28	145204	Rod, Parking Brake	113 116	127285X 72110610	Strap Torque 90 Degrees
29	71673	Cap, Parking Brake	120	73900600	Bolt Rdhd Sqneck 3/8-16 x 1.25 Nut Lock Fig. 3/8-16 Unc
30	169592	Bracket, Transaxle	145	74490540	Bolt, Hex Fighd 5/16-18 Gr. 5
32	STD523107	Bolt	150	165850	Bushing Belicrank Grd. Drive
34	155071	Shaft Assembly, 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	STD551062	Washer	158	165589	Bracket Shift Mount
37	STD571810	Roll Pin	159	165494	Hub Tapered Flange Shift Lt
38	131494	Pulley, idler, Flat	161	72140406	Bolt Rdhd Sgnk 1/4-20 x 3/4
39	STD533727	Bolt			Gr.5
40	4470J	Spacer, Split .395 x .59	162	73680400	Nut Crownlock 1/4-20 Unc
41	165838	Keeper, Belt, Idler	163	74780416	Bolt Hex Fin
42	19131312	Washer 13/32 x 13/16 x 12Ga.			1/4-20Unc x 1 Gr 5
47	127783	Pulley, Idler, V-Groove, Plastic	164	19091010	Washer 5/8 x .281 x 10 Ga
48 49	154407	Belicrank Clutch Grnd Dry Sti	165	165623	Bracket Pivot Lever
50	123205X STD523715	Retainer, Belt Bolt	166	166880	Screw 5/16-18 x 5/8
51	STD541437	Nut Crown Lock 3/8-16 UNC	168	165492	Bolt Shoulder 5/16-18 x .561
52	STD541431	Nut Crown Lock 5/16-18 UNC	169	165580	Plate Fastening Lt
53	105710X	Link, Clutch	170	173898 169613	Keeper Belt Transaxle
55	105709X	Spring, Clutch Return	197 198	169593	Nyliner Snap-In Washer Nyliner
56	STD523712	Bolt Fin Hex 3/8-16 x 1-1/4	202	72110612	Bolt Carr. SH
57	130801	V-Belt, Ground Drive	LUL	72110012	3/8-16 x 1-1/2 Gr. 5
59	169691	Keeper, Belt, Center Span	204	17060516	Screw 5/16-18 x 1 SMGML
61	17060612	Screw 3/8-16 x 3/4			TOTAL TO TOX TOTAL
62	8883R	Cover, Pedal			
63	140186	Pulley, Engine			ent dimensions given in U. S.
64	71170764	Bolt, Hex 7/16-20 x 4 Grade 5	inche	s 1 inch = 25.4	inn

TRACTOR -- MODEL NUMBER 917.271053 STEERING ASSEMBLY

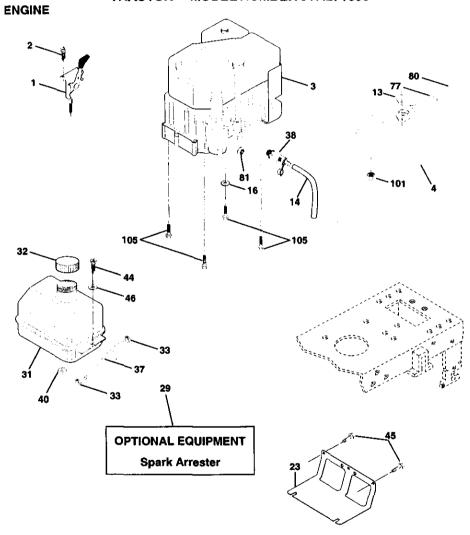


# TRACTOR -- MODEL NUMBER 917.271053 STEERING ASSEMBLY

K	FV	PART	<i>t</i>
	Ю.	NO.	DESCRIPTION
1		139768	Steering Wheel
2		154427	Axle Assembly STMP Dropped STL
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 Gauge
7		19272016	Washer 27/32 x 1-1/4 x 16 Gauge
8		12000029	Ring, Klip
9		3366R	Bearing, Steering Column
10	)	169832	Dragiink
11	1	STD551137	Washer, Lock
13	3	136518	Spacer Bearing Axle Front
15	5	145212	Nut, Hex Flange Lock
17	7	156546	Shaft Assembly, Steering
18	3	57079	Washer, Thrust .515 x .750 x .033
19	•	160395	Support, Shaft
22	2	165857	Screw, Hex Wsh Hd Torx
23	3	165851	Pittman Shaft Assembly
25	5	154406	Bracket, Steering
26	ô	126847X	Bushing, Link, Drag
27	7	136874	Gear, Sector
28	3	19131416	Washer 13/32 x 7/8 x 16 Gauge
29	9	17060612	Screw 3/8-16 x 3/4
30		STD561210	Pin Cotter
32	2	130465	Rod, Tie
30		155099	Bushing, Steering
37		152927	Screw
31		139769	Insert, Steering Wheel
39		19133812	Washer 13/32 x 2-3/8 x 12 Gauge
40	כ	STD541537	Nut Lock Center 3/8-24 Unf
4		100711L	Adaptor, Steering Wheel
4.		145054X428	Boot, Steering Shaft
4		121749X	Washer 25/32 x 1-1/4 x 16 Gauge
4		153720	Extension Shaft Steering LR.LT
46		121232X	Cap, Spindle
4		6855M	Fitting, Grease
51		STD541431	Nut Lock Hex w/lns. 5/16-18 UNC
54		74780520	Bolt Fin Hex 5/16-18 UNC x 1-1/4
6		167902	Kit Steering Asm Service
63		STD523710	Bolt, Fin Hex 3/8-16 UNC x 1 Gr 5
6	5	160367	Spacer Brace Axle
6		154404	Bearing Arm Pittman
6		72140618	Bolt RDHD Sqnk 3/8-16 x 2-1/4
6		169827	Axle, Brace
79		19132012	Washer 13/32 x 1-1/4 x 12 Ga.
80		74950612	Bolt Hex Nylon 3/8-16 x 3/4
8		169835	Bracket Susp. Chassis Front
8	5	133835	Fastener Christmas Tree

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

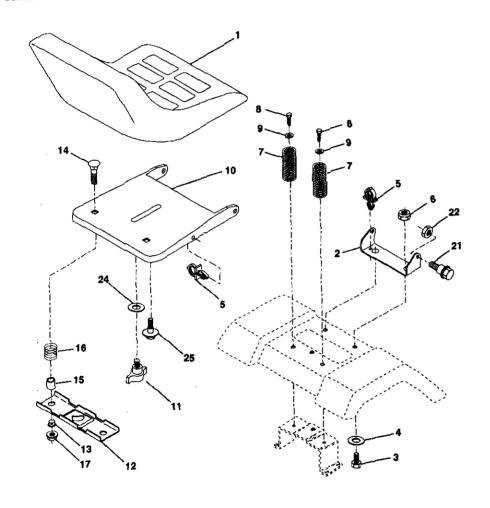




KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2	170548 17720410	Control, Throttle Screw, Hex Head, Thread	38	148315	Drain Oil Easy
3		Cutting 1/4-20 x 5/8 Engine, (See Breakdown) Kohler Model CV15-41598	40 44	124028X 17670412	Bushing, Snap, Fuel Line Screw, Hex Washer Head, Thd., Roll. 1/4-20 x 3/4
4	159420	Muffler	45	17000612	Screw Hxwsh Thdr 3/8-16 x 3/4
13	12-041-03	Gasket	46	19091416	Washer 9/32 x 7/8 x 16 Ga
14	148456	Tube Drain Oil Easy	77	19101216	Washer 5/16 x 3/4 x 16 Ga.
16	STD551237	Washer	80	74760508	Bolt Hex Hd 5/16-18 Unc x 1/2
23	169837	Shleid Brn/Dbr Guard	81	73510400	Nut Keps Hex 1/4-20 Unc
29	137180	Arrestor, Spark	101	M73030800	Nut Flange M8-1.25 Non-Lk Zinc
31	109202X	Tank, Fuel	105	17120616	Screw 3/8-16 x 1
32	158990	Cap Assembly, Fuel Sears, Vented			
33	123487X	Clamp, Hose	NOT	E: All compor	ent dimensions given in U.S. inche
37	137040	Line, Fuel	1 inch	n = 25.4 mm	

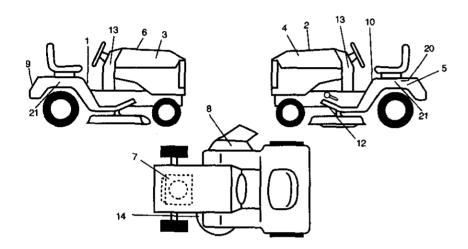
TRACTOR -- MODEL NUMBER 917.271053

### **SEAT ASSEMBLY**



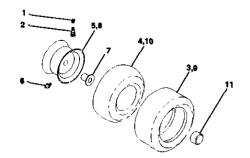
	PART NO.	DESCRIPTION	 PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12	140123 140551 71110616 19131610 145006 STD541437 124181X 17000616 19131614 155925 166369 121246X	Seat Bracket Pnt Pivot Seat (blk ) Bolt Fin Hex 3/8-16unc X 1 Washer 13/32 X 3/4 X 10 Ga Clip Push In Hlnged Nut Hex Lock w/lns 3/8-16 Unc Spring Seat Cprsn 2 250 Blk Zi Screw 3/8-16 X 1 Washer 13/32 X 1 X 14 Ga Pan Pnt Seat (blk ) Knob Seat Adj Wingnut Bracket Pnt Mounting Switch	121248X 72050412 134300 121250X 123976X 171852 STD541431 19171912 127018X E: All compon	Bushing Snap Blk Nyl 50 Id Bolt Rohd Sht Nk 1/4-20x1-1/2 Spacer Split 28 X 96 Zinc Spring Cprsn 1 27 Blk Pnt Nut Lock 1/4 Lge Fig Gr 5 Zinc Bolt Shoulder 5/16-18 Unc-2A Nut Hex Lock w/lns 5/16-18 Washer 17/32 X 1-3/16 X12Ga. Bolt Shoulder 5/16-18 X 62 ment dimensions given in U.S. inches

### **DECALS**



KE'	Y PART		KEY	PART	
NO	. NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	156368	Decal, Oper. Instr.	12	146046	Decal, V-Belt Drive Schematic
2	171764	Decal, Replacement	13	163261	Decal, Dash Panel
3	171698	Decal, Hood, R.H.	14	160396	Decal, V-Belt Schematic
4	171699	Decal, Hood, L.H.	20	149516	Decal Battery Dngr/Psn Eng
5	138047	Decal, Battery	21	163207	Decal, Fender Sd. Wht
6	133644	Decal, Customer Maintenance		138311	Decal, Lift Handle
7	149516	Decal, HP Engine		165800X428	
8	166887	Decal, Deck Mower EZ		165799X428	Pad Footrest RH STLT
9	163204	Decal, Fender, Craftsman		177561	Owner's Manual, English
10	<b>1</b> 56439	Decal, Fender Danger		177562	Owner's Manual, Spanish

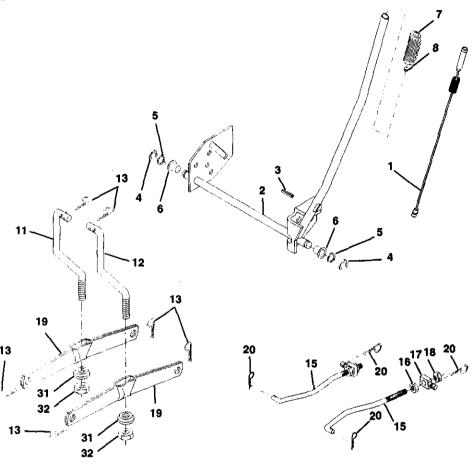
### WHEELS & TIRES



KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Value Tire
2	65139	Stem Value
3	106222X	Tire F Ts 15 X 60 - 6 Service
4	59904	Tube Inner Front #35060
5	106732X427	Rim Asm 6"front White Service
6	278H	Fitting Grease
7	9040H	Bearing Flange
8	106108X427	Rim Asm 8"rear White Service
9	122082X	Tire R Ts 20 X 10-8 Service
10	7152J	Tube Rear 9 5 X 8 Service
11	104757X428	Cap Axle Blk 1 50 X 1 00
	144334	Sealant, Tire (10 oz. tube)

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

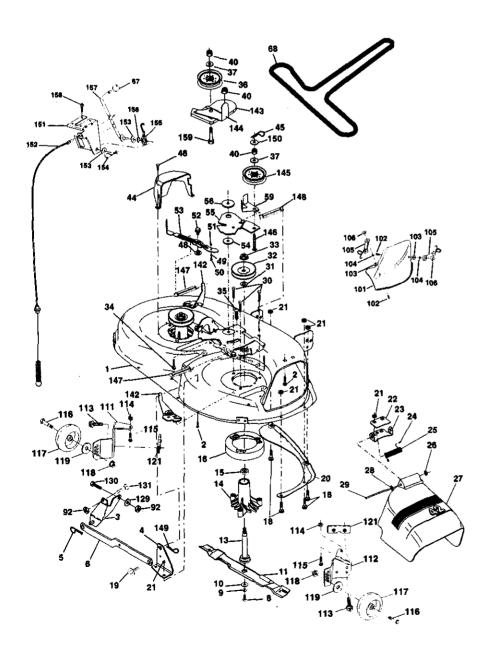
# LIFT ASSEMBLY



KEY	PART	
NO.	NO.	DESCRIPTION
1	159460	Washer Asm Inner Spring W/Plunger
2	159471	Shaft Asm. Lift
3	105767X	Pin Groove
4	12000002	E Ring #5133-62
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylong
7	125631X	Grip Handle Fluted
8	122365X	Button Plunger Read
11	139865	Link Asm Lift L.H.
12	139866	Link Asm Lift R.H.
13	STD624008	Retainer Spring
15	173288	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc
18	73800800	Nut Lock w/Wsh 1/2-13 Unc
19	139868	Arm Suspension Mower
20	163552	Retainer Spring
31	169865	Bearing, Pvt. Lift.
32	73540600	Nut Crownlock 3/8-24

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

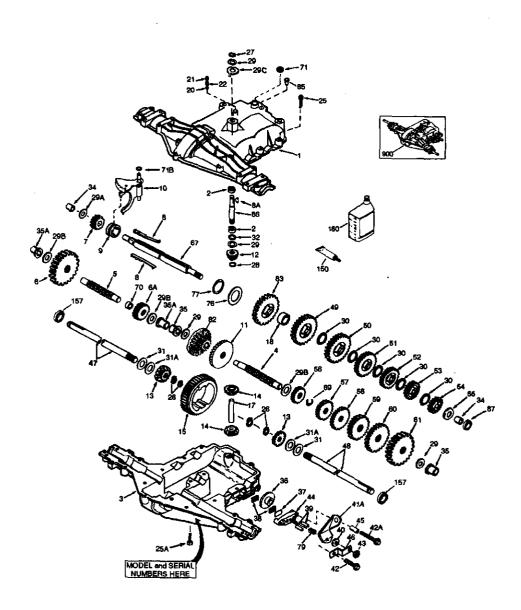
# MOWER DECK



#### **MOWER DECK**

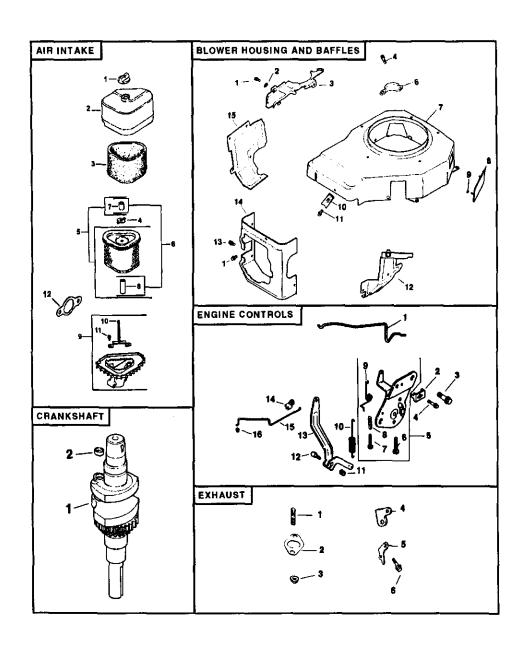
KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	165892	Mower Deck Assembly, 42"	92	STD541437	Nut
2	STD533107	Bolt	101	136420	MulcherCover
3	138017	Bracket Assembly, Sway Bar,	102	71081010	Screw
		Front	103	19061216	Washer #10
4	165460	Bracket Sway Bar 38/42" Deck	104	STD551110	Washer, Lock
5	STD624008	Retainer Spring	105 106	160793 2029J	Latch Assembly, Bagger Nut, Weld
6	130832	Arm, Suspension, Rear	111	155197	Bracket Gauge Wheel Lh
8 9	850857 STD551137	Bolt, Hex 3/8-24 x 1.25 Gr. 8 Washer, Lock	112	155198	Bracket Gauge Wheel Rh
10	140296	Washer, Hardened	113	17060514	Screw Tapping 5/16-18
11	134149	Blade, Mulching	114	73510500	Nut Keps 5/16-18 Unc
13	137645	Shaft Assembly, Mandrel,	115	72110504	Bolt Carr 5/16-Unc x 1/2
	10,010	Vented (Includes Key	116	4898H	Bolt Shoulder
		Number 12)	117	165746	Wheel Gauge Std
14	128774	Housing, Mandrel, Vented	118	73930600	Nut Centerlock 3/8-16 Unc
15	110485X	Bearing, Ball, Mandrel	119	19121414	Washer 3/8 x 7/8 x 4 Ga.
16	140329	Stripper, Vented Mower Deck	121	143723	Bracket Extruded Gauge Wheel
18	72140505	Bolt, Carriage 5/16-18 x 5/8	129	19131312	Washer 13/32 x 13/16 x 12Ga.
19	132827	Bolt, Shoulder	130	STD523710	Bolt, Fin Hex 3/8-16 UNC x 1
20	159770	Baffle, Vortex			Gr. 5
21	STD541431	NutCrownlock 5/16-18 UNC	131	STD533710	Bolt, Rdhd Sqnk 3/8-16UNC x1
22	134753	Stiffener Bracket	142	165890	Arm Spring Brake Mower
23 24	131267	Bracket, Deflector	143 144	157109 158634	Bracket Arm Idler 42" Keeper Belt 42" Clutch Cable
25 25	105304X 123713X	Cap, Sleeve	145	165888	Pulley Idler Flat
26	110452X	Spring, Torsion, Deflector Nut, Push	146	171977	Bolt Carriage Idler
27	130968X428		147	131335	Spring Extension
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	148	169022	Spring Return Idler
29	131491	Rod, Hinge	149	165898	Retainer Spring Yellow Zinc
30	157722	Screw Thdrol Washer Head	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
31	129963	Washer, Spacer	151	169670	Bracket Clutch
32	153535	Pulley, Mandrel	152	169676	Cable Clutch 42 In
33	137266	Nut, Toplock, Flanged	153	169674	Washer Flat 3/8" Type B
34	STD533717	Bolt	154	169675	Spring Retainer
35	133835	Fastner, Christmas Tree	155	169671	Spring Retention Lever
36	131494	Pulley, Idler, Flat	156	169672	Spacer
37	STD551037	Washer 13/32 x 13/16 x 16Ga.	157	169669	Rod Clutch
40	STD541437	NutCrownlock 3/8-16 UNC	158	17720410	Screw Hex Thd Cut 1/4-20 x 5/
44	140088	Guard, Mandrel, L.H.	450	704 1004 4	8 Balt Detted Com 0/9 4 C Line v 0/4
45 46	STD624003 137729	Retainer	159	72140614 130794	Bolt Right San 3/8-16 Unc x 3/4
48	133944	Screw, Thd. Roll 1/4-20 x 5/8 Washer, Hardened		130794	Mandrel Assembly (Includes Key Numbers 8-10, 12-15, 31
49	174284	Roller Assembly, Cam Follower			and 32)
50	131340	Bolt, Shoulder #10-24 Grade 5		169583	Mower Deck, Complete
51	STD541410	Locknut		.00000	(Standard Deck, Order
52	139888	Bolt, Shoulder 5/16-18 UNC			Separately Mulcher Plate and
53	131845	Arm Assembly, Pad, Brake			Gauge Wheel Components, Key
54	133943	Washer, Hardened			Nos. 101-106 and 111-121)
55	155046	Arm, Idler			•
56	165723	Spacer, Retainer			
59	141043	Guard, TUV idler			
67	149846	Knob Custom Oval			nent dimensions given in U.S.
68	144959	V-Belt	inch	es1 inch = 25.	4 mm

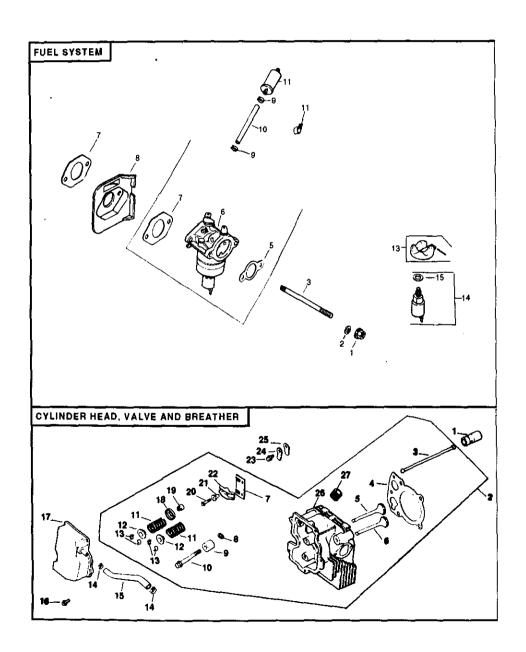
# TRACTOR - - MODEL NUMBER 917.271053 PEERLESS TRANSAXLE - - MODEL NUMBER 206-545C

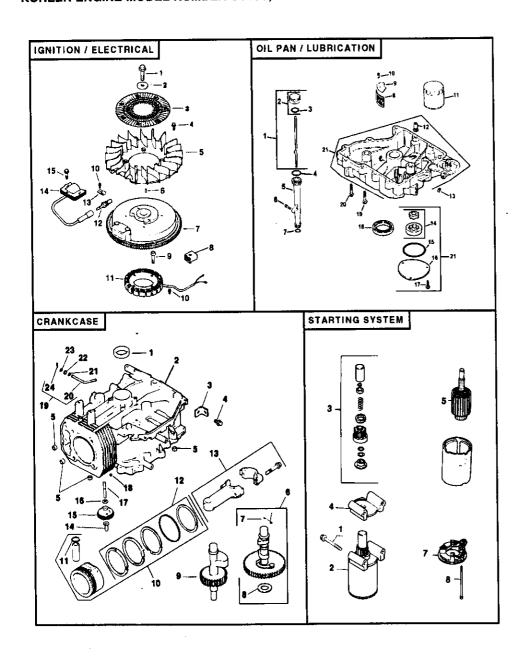


# TRACTOR - - MODEL NUMBER 917.271053 PEERLESS TRANSAXLE - - MODEL NUMBER 206-545C

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	772147	Transaxle Cover	41A	790079	Brake Lever
	780086A	Needle Bearing 5/8"	42	792073A	Screw 1/4 - 20 x 1-1 /4"
2 3 4	770128	Transaxle Case	42A		screw 1/4 - 20 x 2 1/4"
4	776395	Countershaft	43	792075	Locknut 5 / 16 - 24
5	776409	Output Shaft	44	790025	Brake Pad Holder
6	778364	Spur Gear (38 teeth)	45	786066	Spacer .2625_x 1.0
6A	778369	Spur Gear (15 teeth)	46	786086	Brake Lever Bracket
7	778330	Spur Gear (11 teeth)	47	774690	Axle (11-15 / 16" Long)
8	792180	Shift Key	48	774691	Axle (16 - 1 / 2" long)
8A	792047	Woodruff Key #9	49	778356	Spur Gear (29 teeth)
9	784352	Shift Collar	50	778338	Spur Gear (27 teeth)
10	784378	Shift Rod & Fork	51	778354	Spur Gear (23 teeth)
11	778334	Bevel Gear (30 teeth)	52	778352	Spur Gear (19 teeth)
12	778309	Input Bevel Pinion (13 teeth)	53	778350	Spur Gear (16 teeth)
13	778368	Bevel Gear (13 teeth)	54	778346	Spur Gear (15 teeth)
		(Include, 14)	56	778355	Spur Gear (11 teeth)
14	778368	Bevel Pinion (13 teeth)	57	778337	Spur Gear (13 teeth)
		(include, 13)	58	778353	Spur Gear (17 teeth) Spur Gear (21 teeth)
15	778370	Ring Gear (43 teeth)	59	778351	Spur Gear (24 teeth)
17	786188	Drive Pin	60	778349	Spur Gear (24 teeth) Spur Gear (25 teeth)
18	786102	Spacer 1.130 X .695	61 65	778345 780189	Flat Washer .563 ID x
20	792077A	Ball 5/16" dia	65	700103	.062W
21 22	792078	Set Screw 3/8 - 16 x 3/8"	66	776422	Input Shaft
25	792079	Spring .310 OD x .625 L	67	776396	Shifter & Brake Shaft
25A	792073A 792177	Screw 1/4 - 20 x 1-1/4" Screw 1/4-20 x 1-3/8"	69	792170	Retaining Ring
26	792125	Retaining Ring (pkg of 2)	70	786187	Spacer .890
27	792035	Retaining Ring (pkg or 2)	71	788069	Square Cut Ring
28	788040	Retaining Ring	7 i B	788092	"O" Ring
29	780072	Thrust Washer	76	780090	Flat Washer
	. 000. 2	.627 ID x.031W			1.128 ID x .058W
29A	780160	Thrust Washer	77	788078A	Inverted Retaining Ring
,,	,00,00	.762 ID x.031W	79	792144	Spring .430 OD x .5000 L
29B	780051	Thrust Washer	82	778333	Bevel & Spur Gear
		.762 ID x.031W			(30 & 13 teeth)
29C	780199	Anti-Rotation Washer .632	83	778338	Spur Gear (27 teeth)
30	780108	Cup Washer	85	792154	Oil Fili Plug
		1.127 ID x .032W	87	788089A	Oil Seal 9 7 16"
31	780001	Flat Washer .750 ID x .056W	150	788093A	Liquid Gasket RTV Silicone
		(Use As Needed)	157	788088A	Oil Seal 3 /4"
31A	780195	Flat Washer .750 ID x	180	730229A	Gear Oil 80W90
		.062W	900	794712	Replacement
32	788083	Oil Seal 5/8"			MST - 206-545C Transaxle
34	780194	Bushing .563			
35	780193	Flanged Bushing 5 / 8" ID			onent dimensions given in U.S.
35A	780197	Flanged Bushing .751	inche	= s1 inch $=$ 2	5.4 mm
36	790075	Brake Disk			
37	790007	Brake Pad Plate			
38	799021	Brake Pad (pkg of 2)			
39	786026	Dowel Pin			
40	792076A	Flat Washer .312 ID x .059W			







**ENGINE CONTROLS** 

AIR INTAKE/FILTRATION

AIR IN IARE/FILINATION				ENGINE CONTINUES				
KEY NO.	PART NO.	DESCRIPTION	KEY NO. 1	PART NO. 12-079-07-9	DESCRIPTION Linkage, Choke			
			2		Clamp, Cable			
1 2	25-341-03-S 12-096-24-S	Knob, air cleaner cover Cover, air cleaner	3	M-0664020-S	Screw, Locked Socket M6 x 1.0 x 20 (2)			
2 3 4	12-100-08-S	Precleaner, element Wing Nut	4	M-0545016-S	Screw, Hex Flange M5 x .8 x 16			
5		Kit air cleaner element (Includes 6-8)	5	12-536-09-S	Control, Speed Assembly (Includes Key Numbers 6			
6 7	230046-S	Filter, element (Includes 7&8) Seal, breather	6	M-0443020-S	through 9) Screw, Pan Head M4 x 0.7			
8	12-032-11-S		_		x 20			
9		Base, air cleaner (Includes 10,11)	7		SScrew, Pan Head M4 x 0.7			
10	12-072-04-S	Stud, mounting plate	8	12-089-11-8	Spring, Choke Adjust (2)			
		M6X1.0X75	9 10	12-009-23-3	Spring, Choke Return Spring, Governor			
11	12-086-01-S	Screw, #10 Hi-Lo thread	11	M-0641060-S	Nut, Hex Flange M6 x 1.0			
12		forming (2) Gasket, air cleaner	12	SM-0642025-	SScrew, Hex Flange			
	ILLUSTRATED		13	12 000 0E C	M6 x 1.0 x 25			
	12 113 53-S	Decal, air cleaner	14	25-159-11-9	Lever, Governor Bushing, Throttle Linkage			
		,	15	12-079-01-8	Linkage, Throttle			
CRAM	NKSHAFT		16	25-158-08-S	Bushing, Linkage Retaining			
	PART	_	EXHA	UST				
NO.	NO.	DESCRIPTION						
1	12-014-37-S		KEY	PART				
2	12-139-01-S	Plug, Cup	NO.	NO.	DESCRIPTION			
BLO/	WER HOUSING	AND BAFFLES	1 2	12-041-03-S	Stud, M8 x 1.25 x 33 (2) Gasket, Exhaust Manifold			
KEV	PART		3	M-0841080-S	Nut, Hex Flange M8 x 1.25			
NO.	NO.	DESCRIPTION		40 400 44 0	(2)			
1	M-0545010-S	Screw, Hex Flange	4	12-126-11-5	Bracket, Muffler			
•	00 .00 .0	M5 x 0.8 x 10 (8)	5 6	12-445-00-5	Strap, Lifting			
2	24-468-10-S	Washer, Plain 1/4	•	WI-0045025-6	SScrew, Hex Flange M6 x 1.0 x 25 (2)			
3	12-146-07-S	Plate, Blower Housing			MO X 1.0 X 23 (2)			
4		S Screw, Hex Flange M6 x 1.0 x 20	NOT	ILLUSTRATED				
6	24-096-05-S	Cover, Pinion	KEY	PART				
7	12-027-32-S	Housing, Blower	ÑÕ.		DESCRIPTION			
9	12-141-01-5	Ring, Retainer (2)			- /			
8	12-096-28-8	Clip Mayating (2)		12-522-18	Short Block			
10 11	40-104-02-5 M-0646000-6	Clip, Mounting (3)		12-755-59-S				
1.1	WI-0343020-8	S Screw, Hex Flange M5 x .8 x 20 (3)						
12 13	12-063-05-S M-0645016-S	Baffle, Intake Side Screw, Hex Flange			Low Speed: 1500-2000 High Speed: 3200-3400			
, ,		M6 x 1.0 x 16 (2)	ric M	Cottings.	ingii opoed. debo-o-too			
14 15	12-063-08-S 12-063-01-S	Baffle, Cylinder Head Baffle, Cylinder		E: All compones 1 inch = 25.4	ent dimensions given in U.S 4 mm			
NOT	ILLUSTRATED							
•••		Decal, Horsepower						

#### FUEL SYSTEM

### CYLINDER HEAD, VALVE AND BREATHER

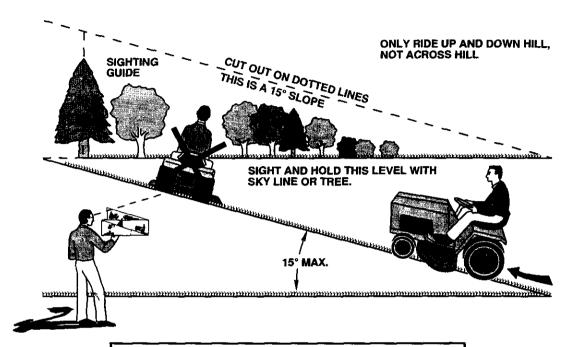
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	M-641060-S	Nut, hex. Flange M6x1.0 (2)	1	12-351-01-S	Lifter, Valve (2)
2	X-22-11-S	Washer, Lock	2		Kit, Cylinder Head
2 3 4	M-629116-S		3	12-411-01-S	Rod, Push (2)
4	12-853-94-S	Kit, carburetor (Includes 5-7	4		Gasket, Cylinder Head
=		Qty. 1 & 25 452 20 Terminal)	5		Valve, Intake, Standard Size
5	12-041-02-S				Valve, Intake, .25" Oversize
ě.	12-053-94-S	Carburetor assembly	6		Valve, Exhaust, Standard
•		(For information only not	-	12-016-02-S	
		available separately)		•	size
		(Includes 13-15, & 12 757	7	12-146-13-S	Plate, Guide
		03-3 kit, carburetor repait	8		Washer, Plain 13/32
7	12-041-01-S		9	12-112-13-S	
	12-265-04-S				Port
8 9	X-426-9-S	Clamp, hose (2)	10	12-086-15-S	Screw, Hex Flange
10	25-353-10-S				M10 x 1.5 x 81 (5)
11	25-050-03-S		11	12-089-01-S	Spring, Valve (2)
12	47-154-01-S		12	12-173-01-S	Cap, Valve Spring (2)
13	12-757-02-S		13	12-755-03-S	Kit, Retainer (2)
14	12-757-33-S		14	X-426-9-S	Clamp, Hose (2)
		(Includes 15, 12 454	15	12-326-03-S	Hose, Breather
		03-S Tie wire, &	16	M-0645020-9	Screw, Hex Flange
		25-452 20-S Terminal			M6 x 1.0 x 20 (5)
15	12-041-06-S	Gasket, bowl retainer screw	17	12-096-07-S	Cover, Valve with Nipple
		•	18	235011-S	Retainer, Spring
NOT	ILLUSTRATED		19		Seal, Valve Stem
	12-041-01-S	Gasket, Carburetor	20	M-0640034-5	Screw, Hex Flange
	12-757-03-S	Kit, Carburetor Repair			M6 x 1 x 34 (2)
	12-518-37-S	Lead, Red( 37", 20 Gauge,	21		Pivot, Rocker Arm (2)
		Uninsulated Socket and	22	24-186-03-S	Arm, Rocker (2)
		Insulated Socket Terminal)	23	M-0545010-8	Screw, Hex Flange
	M-561010-S	Screw, Thread Forming			M5 x 0.8 x 10
		M5 X8 x 10	24		Retainer, Breather Reed
	24-452-20-S	Terminal	25	12-402-02-S	
	12-454-03-S	Tie, Cable	26		Head, Cylinder
			27	X-75-23-S	Plug, Pipe, Allen Head 1/8

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

ROUTEN FRANKFINDER HOUNDER OF 1900, 111 E HOUNDER 41000						
IGNITION / ELECTRICAL			CRANKCASE			
KEY NO. 1	PART NO. 12-086-14-S	DESCRIPTION Screw, Hex Flange M10 x 1.5 x 46	KEY NO. 1 2	NO. 12-032-03-S	DESCRIPTION Seat, Crankshaft Block, Cylinder (Use Short	
2 3 4 5 6	24-162-03-S 25-084-47-S	Washer, Plain 3/8 Screen, Grass Bolt, shoulder (4) Spacer, Fan (4)	3	12-445-02-8	Block)	
6 7 8 9	X-42-15-S 12-025-37-S 12-155-09-S	Key Flywheel Assembly	5 6 7	12-755-49-S	Dowel, Locating (4) Kit, Camshaft (includes Key #7 & 8)	
10	M-0545010-S	M5 x 0.8 x 25 (2) Screw, Hex Flange M5 x 0.8 x 10 (2)	8	12-422-09-S	Spring, Actuating Shim, Camshaft, Blue Shim, Camshaft, Red (A.R.) Shim, Camshaft, Yellow	
11 12 13	12-085-09-5 12-132-02-5 X-728-1-S			12-422-11-S	(A.R.) Shim, Camshaft, Green (A.R.)	
14 15	12-584-04-S	Module ignition Screw, Hex Flange M5 x 0.8 x 20 (2)		12-422-12-S 12-422-13-S	Shim, Camshaft, Grey (A.R.) Shim, Camshaft, Black (A.R.)	
NOT	ILLUSTRATED			12-422-07-8	Shim, Camshaft, White (A.R.)	
•-	12-518-35-S	Lead, White, Ground To Kill (36", 18 Gauge, Fully Insulated Push-on Tab and	9 10		Shaff, Balance Piston w/Ring Set, Standard Piston w/Ring Set .25" Oversize	
		Uninsulated Push-on Tab Terminals)			Piston w/Ring Set .50" Oversize	
 OIL E	12-454-03-S		11 12	12-018-02-S 12-108-07-S 12-108-08-S	Ring Set, Standard	
OIL F	'AN / LUBRICA	IFON		12-108-09-S	Ring Set .50" Oversize	
NO.	PART NO.	DESCRIPTION	13	12-067-05-S	Connecting Rod, Standard Connecting Rod .25"	
1	12-038-01-8	Dipstick Assembly (Includes Key Numbers 2 and 3)	14 15	12-380-01-S 12-043-05-S	Oversize Pin, Governor Regulating Gear, Governor Assembly	
2		Kit, Oil Fill Cap (Includes Key #3)	16 17	M-0631005-S 12-144-02-S	Washer, Plain, 6mm Shaft, Governor Gear	
3 4 5 6	12-153-02-S 12-123-04-S	O-Ring, Dipstick O-Ring, Upper Oil Fill Tube Tube, Oil Fill	18 19	52-139-09-S 12-755-64-S	Plug, Cup Kit, Shaft, Governor Cross, with Clip (Includes Key #20 and	
7		Screw, Hex Flange M6 x 1.0 x 25 O-Ring, Lower Oil Fill Tube	20	12-144-24-S	24) Shaft, Governor Cross	
8 9 10	25-162-07-S 12-096-03-S	Screen, Oil Pick-up Cover, Oil Pick-up Screen Screw, Hex Flange	21 22 23	X-25-102-S 12-032-01-S SM-0631015-	Washer, Plain 1/4 Seal, Governor Cross Shaft S Washer, Plain, 6mm	
11	12-050-02-S		24		Clip, Hitch Pin	
12 13	25-462-09-S X-75-10-S	Valve Oil Pressure Relief Plug, square head, solid 3/8"		TING SYSTEN PART	,	
14 15 16	12-153-06-8	Oil Pump Assembly O-Ring, Oil pump Cover	NO. 1	NO. M-0839070-S	DESCRIPTION S Screw, Hex Flange M8 x 1.25 x 70 (2)	
17	M-545016-S	Screw, Hex Flange M5 x 0.8 x 16 (3)	2	25-098-03-S	Starter Assembly (Includes Key Numbers 3	
18 19	12-032-03-S 24-086-16-S	(P.1.O. End) Screw, Hex. Flange M8 X 1.25 X 45 (11)	3 4	12-755-54-S 12-227-06-S		
20		Screw, Hex. Flange (M8 X 1.25 X 45	5 7	45-170-03-S 12-227-11-S	Armature End Cap, Commutator	
21	12-199-56-S	Pan, Oil Assembly (Includes 12, 14-17)	8	12-086-25-S	Screw, Hex Flange 1/4-20 x 4-5/8 (2)	

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

### SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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

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