SEARS
OWNER'S
MANUAL

MODEL NO. 944.603150

Important:
Read and follow
all Safety Rules
and Instructions
Before Operating
This Equipment



# **CRAFTSMAN®**

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

- Assembly
- Operation
- Maintenance
- Service and Adjustments
- Repair Parts

### SAFETY RULES



Safe Operation Practices for Ride-On Mowers



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

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while back-
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing road-
- Use extra care when loading or unloading the machine into a trailer or truck.
- Data indicates that operators, age 60 years and above. are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

#### **SLOPE OPERATION**

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

#### DO:

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

#### DO NOT:

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

#### III. CHILDREN

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

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

#### IV. SERVICE

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

### **SAFETY RULES**

## ▲ Safe Operation Practices for Ride-On Mowers













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



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



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



WARNING: 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.

# TABLE OF CONTENTS

| SAFETY RULES              | 2-3  |
|---------------------------|------|
| PRODUCT SPECIFICATIONS    |      |
| CUSTOMER RESPONSIBILITIES | 4    |
| WARRANTY                  | 4    |
| ASSEMBLY                  | 6-8  |
| OPERATION                 | 9-13 |
| MAINTENANCE SCHEDULE      | 14   |

| MAINTENANCE1             | 4-17 |
|--------------------------|------|
| SERVICE AND ADJUSTMENTS1 | 8-23 |
| STORAGE                  | 24   |
| TROUBLESHOOTING2         | 5-26 |
| REPAIR PARTS - TRACTOR2  | 8-43 |
| REPAIR PARTS - ENGINE4   | 4-49 |
| PARTS ORDERING/SERVICE   |      |
| BACK COVER               |      |

#### PRODUCT SPECIFICATIONS

| 11100001 01 201                                   |  |
|---|--|
| GASOLINE CAPACITY<br>AND TYPE:                    | 1.25 GALLONS<br>UNLEADED REGULAR   |
| OIL TYPE (API-SF-SJ):                             | SAE 30 (above 32°F)<br>SAE 5W-30 (below 32°F)<br>SYNTHETIC (below 0° F)                    |
| Your tractor was shipped fro SAE 10W-30 motor oil | m the factory with non-synthetic   |
| OIL CAPACITY:                                     | 3.5 PINTS W/ FILTER<br>3.0 PINTS W/O FILTER  |
| SPARK PLUG:<br>(GAP: .030")                       | CHAMPION RC12YC  |
| GROUND SPEED (MPH):                               | FORWARD:<br>1st 1.1<br>2nd 1.4<br>3rd 2.2<br>4th 3.3<br>5th 4.4<br>6th 4.9<br>REVERSE: 1.4 |
| TIRE PRESSURE:                                    | FRONT: 14 PSI<br>REAR: 12 PSI  |
| CHARGING SYSTEM:                                  | 3 AMPS BATTERY<br>5 AMPS HEADLIGHTS  |
| BATTERY:  | AMP/HR: 28<br>MIN. CCA: 230<br>CASE SIZE: U1R  |
| BLADE BOLT TORQUE:                                | 27-35 FT. LBS.   |

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

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

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

#### MAINTENANCE AGREEMENT

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

#### **CUSTOMER RESPONSIBILITIES**

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

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

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

#### LIMITED TWO (2) YEAR WARRANTY ON CRAFTSMAN TRACTOR (RIDING EQUIPMENT)

For two (2) years from date of purchase Sears Canada, Inc. will repair or replace at Sears option free of charge parts which are defective as a result of material or workmanship.

#### **FULL ONE (1) YEAR WARRANTY ON BATTERY**

For one (1) year 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.

#### **COMMERCIAL OR RENTAL USE**

Warranty on Riding Equipment used for commercial or rental purposes is limited to ninety (90) days.

#### This Warranty does **NOT** cover:

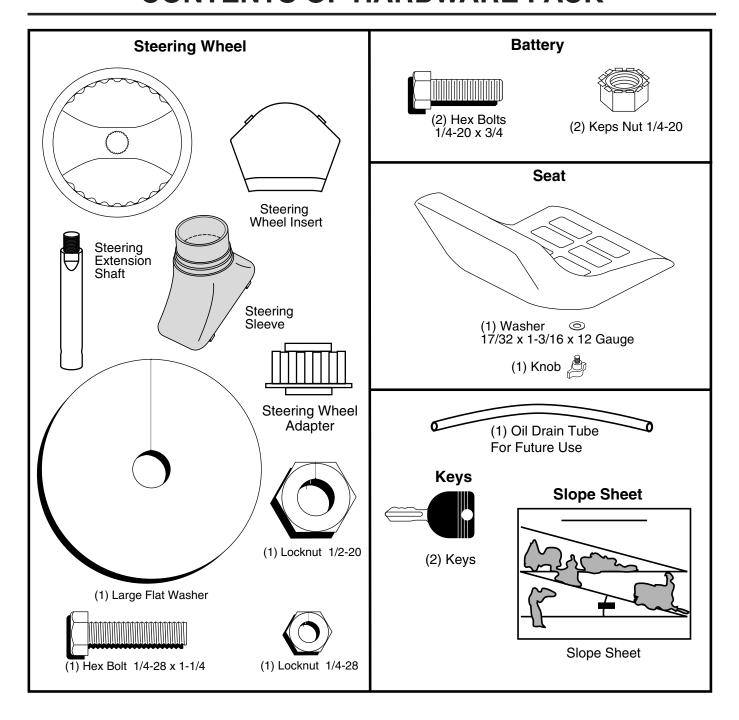
- 1. Pre-delivery set-up.
- 2. Tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass).
- 3. Expendable items which become worn during normal use, such as blades, spark plug, air cleaners and belts.
- 4. Repairs necessary because of operator abuse or negligence, including damaged jackshaft or mandrel and the failure to operate and maintain the equipment according to the instructions contained in the Owner's Manual.
- 5. In Home service.

Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

This warranty is in addition to any statutory warranty and does not exclude or limit legal rights you may have but shall run concurrently with applicable provincial legislation. Furthermore, some provinces do NOT allow limitation on how long an implied warranty will last so the above limitations may not apply to you.

SEARS CANADA, INC., TORONTO, ONTARIO M5B 2B8

# **CONTENTS OF HARDWARE PACK**



# **ASSEMBLY**

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

#### TOOLS REQUIRED FOR ASSEMBLY

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

(2) 7/16" wrenches Utility knife

(1) 3/4" wrench Tire pressure gauge

Phillips screwdriver

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

#### TO REMOVE TRACTOR FROM CAR-TON

#### **UNPACK CARTON**

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

# BEFORE REMOVING TRACTOR FROM SKID

#### ATTACH STEERING WHEEL (See Fig. 1)

ASSEMBLE EXTENSION SHAFT AND BOOT

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

**IMPORTANT**: TIGHTEN BOLT AND NUT SECURELY TO 10-12 FT. LBS TORQUE.

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

#### **INSTALL STEERING WHEEL**

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

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

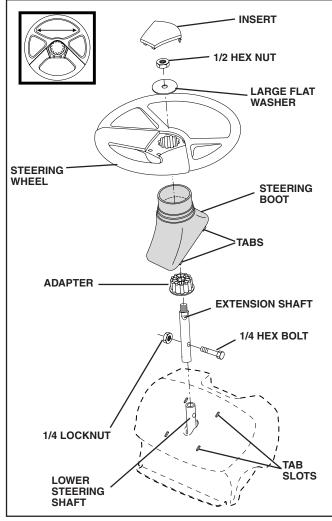


FIG. 1

# **ASSEMBLY**

#### **HOW TO SET UP YOUR TRACTOR**

#### **INSTALL SEAT (See Fig. 2)**

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- · Raise seat and tighten adjustment knob securely.

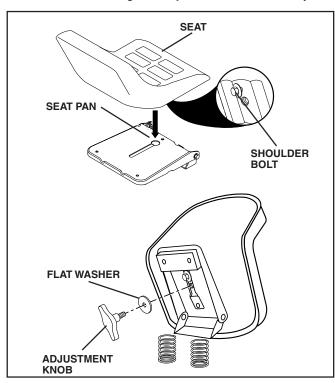


FIG. 2

#### **CONNECT BATTERY (See Figs. 3 and 4)**



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

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

- · Lift seat pan to raised position.
- Remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

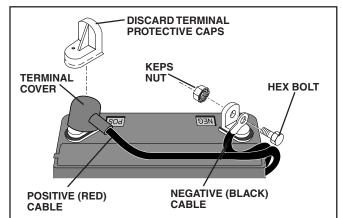


FIG. 3

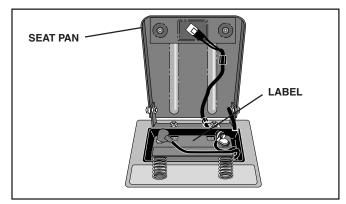


FIG. 4

### **ASSEMBLY**

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

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

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

# TO DRIVE TRACTOR 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.
- Turn ignition key to "STOP" position.

Continue with the instructions that follow.

#### **CHECK TIRE PRESSURE**

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

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" section of this manual.

#### **CHECK DECK LEVELNESS**

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

# CHECK FOR PROPER POSITION OF ALL BELTS

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

#### **CHECK BRAKE SYSTEM**

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

#### ✓ CHECKLIST

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

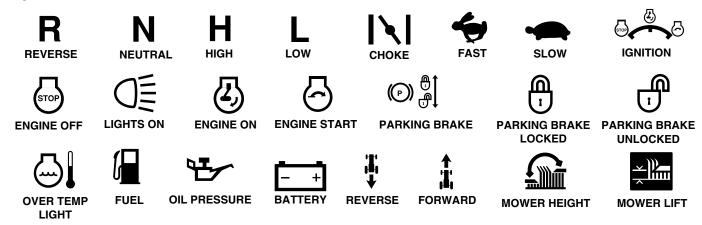
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

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

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

















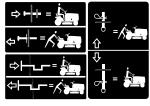


ATTACHMENT

ATTACHMENT CLUTCH ENGAGED CLUTCH DISENGAGED

DANGER, KEEP HANDS AND FEET AWAY

SLOPE HAZARDS **KEEP AREA CLEAR** (SEE SAFETY RULES SECTION)



**FREE WHEEL** (Automatic Models only)



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



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



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



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

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



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



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

#### **KNOW YOUR TRACTOR**

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

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

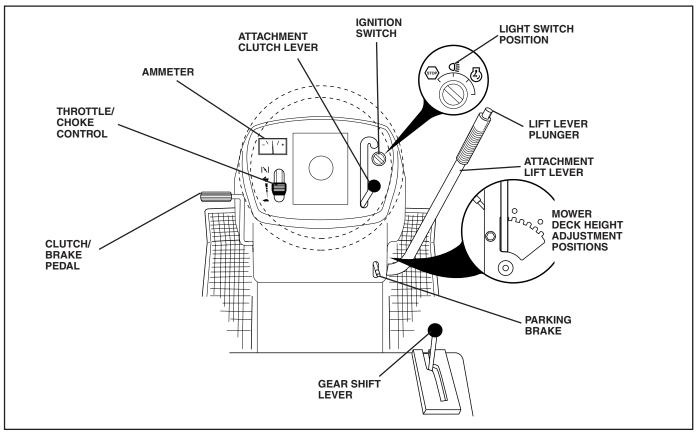


FIG. 5

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

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

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

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

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

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

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

**ATTACHMENT LIFT LEVER**: Used to raise, lower, and adjust the mower deck or other attachments mounted to your tractor.

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

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

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



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

#### **HOW TO USE YOUR TRACTOR**

#### TO SET PARKING BRAKE (See Fig. 6)

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

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

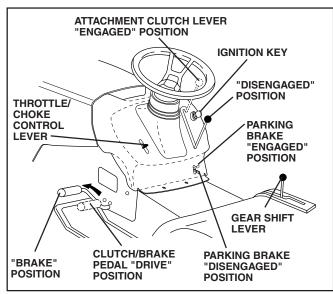


FIG. 6

#### STOPPING (See Fig. 6)

**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 (See Fig. 6)

Always operate engine at full throttle.

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

# TO MOVE FORWARD AND BACKWARD (See Fig. 6)

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

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

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

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 7)

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

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

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

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

#### TO OPERATE MOWER (See Fig. 7)

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

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



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

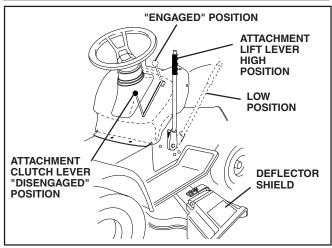


FIG. 7

#### TO OPERATE ON HILLS



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

#### **TO TRANSPORT**

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

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

#### TOWING CARTS AND OTHER ATTACH-**MENTS**

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

#### BEFORE STARTING THE ENGINE

#### CHECK ENGINE OIL LEVEL

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

#### ADD GASOLINE

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



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

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

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

#### TO START ENGINE (See Fig. 5)

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 "DISENGAGED" position.
- Move throttle control to choke (ℕ) position.

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

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

#### **MOWING TIPS**

- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 8).

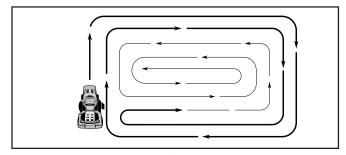


FIG. 8

- 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.

| AS | MAINTENANCE SCHEDUL<br>L IN DATES<br>YOU COMPLETE<br>GULAR SERVICE | E | SEFORE   | EACH US     | HOUR        | 5 HOUR<br>5 HOUR<br>5 HOUR<br>5 HERY 5 | SHOUP<br>OHOUP<br>VERY | AS HOU   | AS ON<br>EASON<br>EFORES | ORAGE<br>SERVIC | E DATES |
|----|--|---|----------|-------------|-------------|--|------------------------|----------|--------------------------|-----------------|---------|
|    | Check Brake Operation  | ~ | 1        |             |             |  |                        |          |                          |                 |         |
|    | Check Tire Pressure  | V | <b>/</b> |             |             |  |                        |          |                          |                 |         |
| Т  | Check Operator Presence and Interlock Systems                      | ~ |          |             |             |  |                        |          |                          |                 |         |
| R  | Check for Loose Fasteners  | ~ |          |             |             | <b>1</b> 5                             |                        | ~        |                          |                 |         |
| AC | Sharpen/Replace Mower Blades                                       |   |          | <b>1</b> 3  |             |  |                        |          |                          |                 |         |
| +  | Lubrication Chart  |   |          | <b>'</b>    |             |  |                        | <b>/</b> |                          |                 |         |
| Ιċ | Check Battery Level  |   |          | <b>1</b> 4  |             |  |                        |          |                          |                 |         |
| R  | Clean Battery and Terminals  |   |          | <b>/</b>    |             |  |                        | <b>/</b> |                          |                 |         |
|    | Check Transaxle Cooling  |   |          | <b>/</b>    |             |  |                        |          |                          |                 |         |
|    | Check V-Belts  |   |          |             |             | <b>V</b>                               |                        |          |                          |                 |         |
|    | Check Engine Oil Level   | 1 | 1        |             |             |  |                        |          |                          |                 |         |
|    | Change Engine Oil (with oil filter)                                |   |          |             | <b>1</b> ,2 | 2                                      |                        | /        |                          |                 |         |
| E  | Change Engine Oil (without oil filter)                             |   |          | <b>1</b> ,2 |             |  |                        | /        |                          |                 |         |
| N  | Clean Air Filter   |   |          | <b>✓</b> 2  |             |  |                        |          |                          |                 |         |
| Ģ  | Clean Air Screen   |   |          | <b>√</b> 2  |             |  |                        |          |                          |                 |         |
| I  | Inspect Muffler/Spark Arrester                                     |   |          |             | 1           |  |                        |          |                          |                 |         |
| ΙË | Replace Oil Filter (If equipped)                                   |   |          |             |             | 1,2                                    |                        |          |                          |                 |         |
| -  | Clean Engine Cooling Fins  |   |          |             |             | <b>1</b> 2                             |                        |          |                          |                 |         |
|    | Replace Spark Plug   |   |          |             |             | 1                                      | 1                      |          |                          |                 |         |
|    | Replace Air Filter Paper Cartridge                                 |   |          |             |             | <b>√</b> 2                             |                        |          |                          |                 |         |
|    | Replace Fuel Filter  |   |          |             |             |  | 1                      |          |                          |                 |         |

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

#### GENERAL RECOMMENDATIONS

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

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

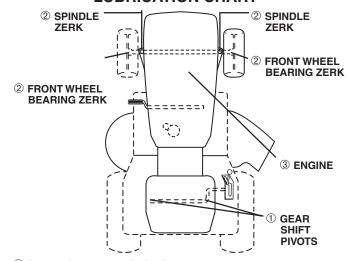
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

#### **BEFORE EACH USE**

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

#### LUBRICATION CHART



- ① SAE 30 OR 10W30 MOTOR OIL
- 2 GENERAL PURPOSE GREASE
- 3 REFER TO MAINTENANCE "ENGINE" SECTION

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

#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

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

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

#### OPERATOR PRESENCE SYSTEM

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

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

#### **BLADE CARE**

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

#### **BLADE REMOVAL (See Fig. 9)**

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

**IMPORTANT:** TO ENSURE PROPER ASSEMBLY, CENTER HOLE IN BLADE MUST ALIGN WITH STAR ON MANDREL ASSEMBLY.

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

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

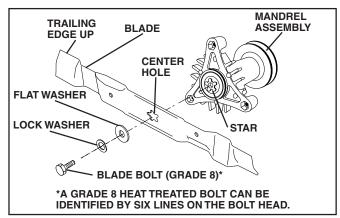


FIG. 9

#### TO SHARPEN BLADE (See Fig. 10)

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

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

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

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

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

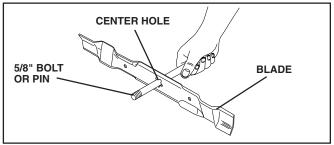


FIG. 10

#### **BATTERY**

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

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

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

#### TO CLEAN BATTERY AND TERMINALS

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

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

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

#### **ENGINE**

#### **LUBRICATION**

Only use high quality detergent oil rated with API service classification SF-SJ. Select the oil's SAE viscosity grade according to your expected operating temperature. When operating in temperatures below 0° F (-18° C) synthetic oil must be used.

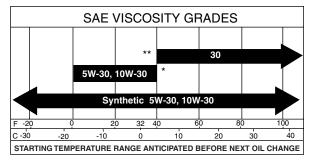


FIG. 11

- \* **CAUTION:** Air cooled engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W30, 10W30 etc.) in temperatures above  $40^{\circ}$  F ( $4^{\circ}$  C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.
- \*\* **CAUTION:** SAE 30 oil, if used below 40° F (4° C), will result in hard starting and possible engine bore damage due to inadequate lubrication.



NOTE: Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol (shown at left) with "SJ/CF ENERGY CONSERVING" or higher, is an acceptable oil at all temperatures. Use of synthetic oil does not alter required oil change intervals.

Change the oil after every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.

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

TO CHANGE ENGINE OIL (See Figs. 11 and 12)

Determine temperature range expected before oil change. All oil must meet API service classification SF-SJ.

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- · Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove yellow cap from end of drain valve and install the drain tube onto the fitting.

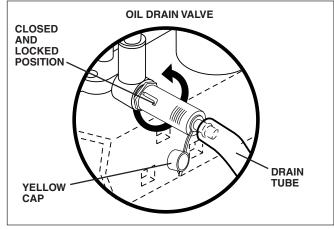


FIG. 12

- Unlock drain valve by pushing inward and turning counterclockwise.
- To open, pull out on the drain valve.
  - After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
- Remove the drain tube and replace the cap onto to the bottom fitting of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- Use gauge on oil fill cap/dipstick for checking level.
   Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.

#### **CLEAN AIR SCREEN**

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

#### **ENGINE COOLING FINS (See Fig. 13)**

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating.

- Remove screws from blower housing and lift housing and dipstick tube assembly off engine.
- Cover oil fill opening to prevent entry of dirt.
- Use compressed air or stiff bristle brush to thoroughly clean engine cooling fins.
- To reassemble, reverse above procedure.

16

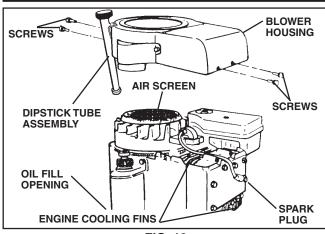


FIG. 13

#### AIR FILTER (See Fig. 14)

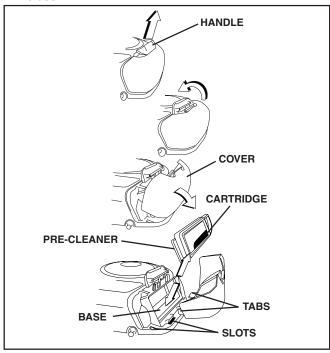
Your engine will not run properly using a dirty air filter. Replace pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

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

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

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



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

#### **MUFFLER**

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

#### **SPARK PLUGS**

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

#### **IN-LINE FUEL FILTER (See Fig. 15)**

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

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

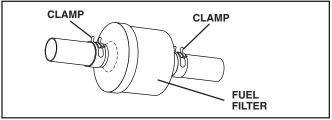


FIG. 15

#### CLEANING

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

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



WARNING: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUST-MENTS:

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

#### **TRACTOR**

#### TO REMOVE MOWER (See Fig. 16)

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

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

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

**IMPORTANT:** IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS AND HOOK THE CLUTCH SPRING INTO SQUARE HOLE IN FRAME.

#### TO INSTALL MOWER (See Fig. 16)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with deflector shield to right side of tractor.
- Lower lift lever to its lowest position.
- Connect front links to mower deck and secure with retainer springs..

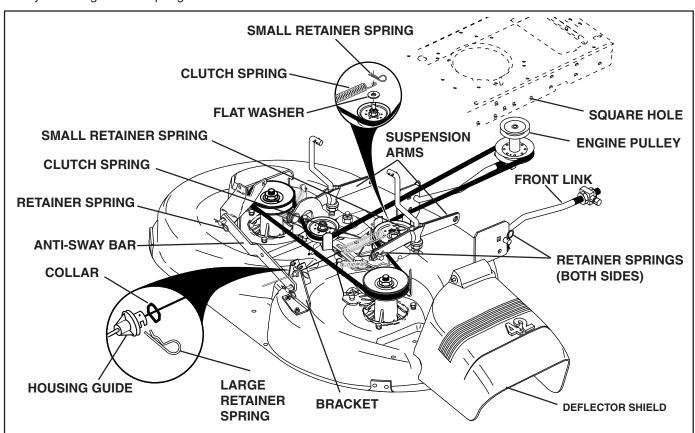


FIG. 16

- Connect suspension arms to rear deck brackets and secure with retainer springs.
- Connect anti-swaybar to chassis bracket and secure with retainer spring.
- Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- Install belt onto engine pulley.

#### TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 17 and 18)

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

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

Recheck measurements after adjusting.

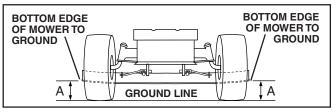


FIG. 17

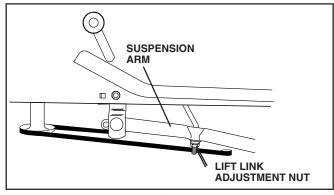


FIG. 18

FRONT-TO-BACK ADJUSTMENT (See Figs. 19 and 20) IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

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

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

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

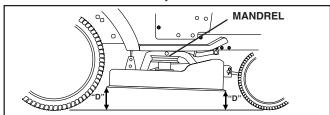


FIG. 19

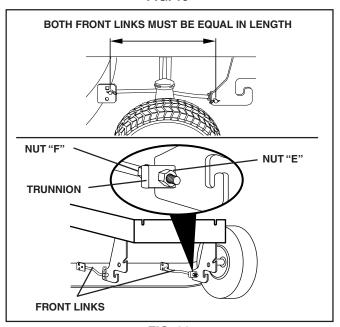


FIG. 20

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 21)

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

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

#### **BELT INSTALLATION -**

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

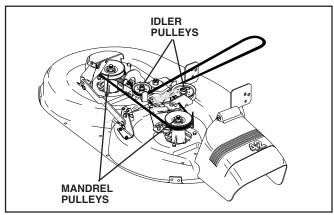


FIG. 21

# TO CHECK AND ADJUST BRAKE (See Fig. 22)

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle. If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be checked and adjusted.

#### TO CHECK BRAKE

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

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

#### TO ADJUST BRAKE

- Depress clutch/brake pedal all the way down and engage parking brake.
- 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 five (5) feet in highest gear, further maintenance is necessary. Replace brake pads or contact a qualified service center.

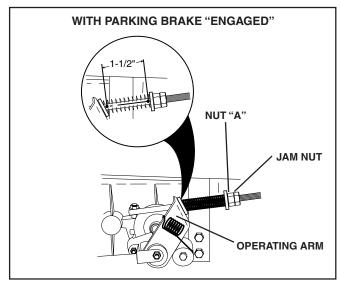


FIG. 22

# TO REPLACE MOTION DRIVE BELT (See Fig. 23)

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

#### **BELT REMOVAL -**

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

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

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

#### **BELT INSTALLATION -**

- Carefully work new belt down between transaxle belt keepers and onto the input pulley.
- Slide belt into the center span keeper.
- Pull belt toward front of tractor and roll around the top groove of engine pulley.
- Install belt through stationary idler and clutching idler.
- Make sure belt is in all pulley grooves and inside all belt guides and keepers.
- Install mower (See "TO INSTALL MOWER" in this section of manual).

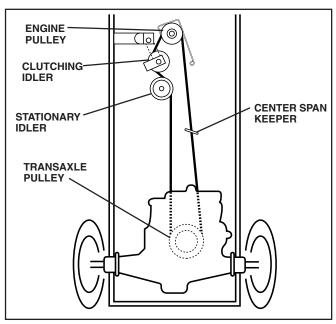


FIG. 23

# TRANSAXLE GEAR SHIFT LEVER NEUTRAL ADJUSTMENT (See Fig. 24)

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.

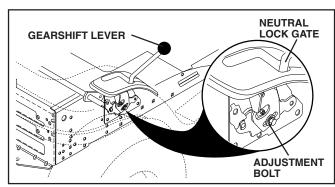


FIG. 24

#### TO ADJUST STEERING WHEEL ALIGN-MENT

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

#### FRONT WHEEL TOE-IN/CAMBER

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

# TO REMOVE WHEEL FOR REPAIRS (See Fig. 25)

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

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

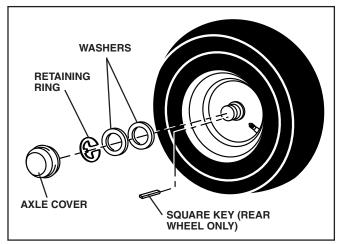


FIG. 25

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 26)



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

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

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

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

#### TO ATTACH JUMPER CABLES -

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

#### TO REMOVE CABLES. REVERSE ORDER -

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

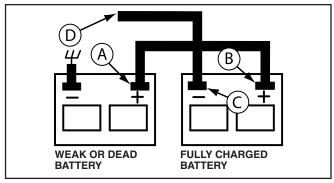


FIG. 26

#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

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

#### TO REPLACE FUSE

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

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 27)

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

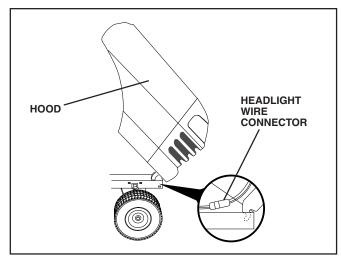


FIG. 27

#### **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 (See Fig. 28)

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

- With engine not running, move throttle control lever from slow to choke position. Slowly move lever from choke to fast position.
- Check that holes "A" in governor control lever and hole in governor plate line-up. If holes "A" are not aligned, loosen clamp screw and move throttle cable until holes are aligned. Tighten clamp screw securely.

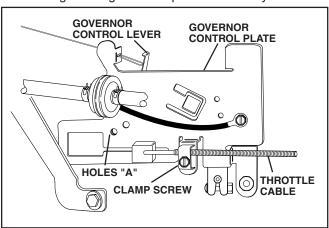


FIG. 28

#### TO ADJUST CARBURETOR (See Fig. 29)

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

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

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

**IMPORTANT:** DAMAGE TO THE NEEDLE VALVE AND THE SEAT IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING -

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

#### FINAL SETTING -

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

#### **ACCELERATION TEST -**

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

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

IMPORTANT: NEVERTAMPERWITHTHEENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACTYOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

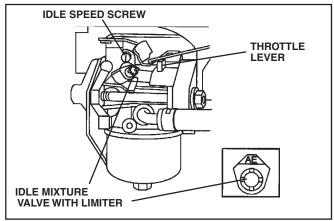


FIG. 29

### **STORAGE**

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



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

#### **TRACTOR**

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

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

#### **BATTERY**

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

#### **ENGINE**

#### **FUEL SYSTEM**

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

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

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

#### **ENGINE OIL**

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

#### CYLINDER(S)

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

#### **OTHER**

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

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

# TROUBLESHOOTING POINTS

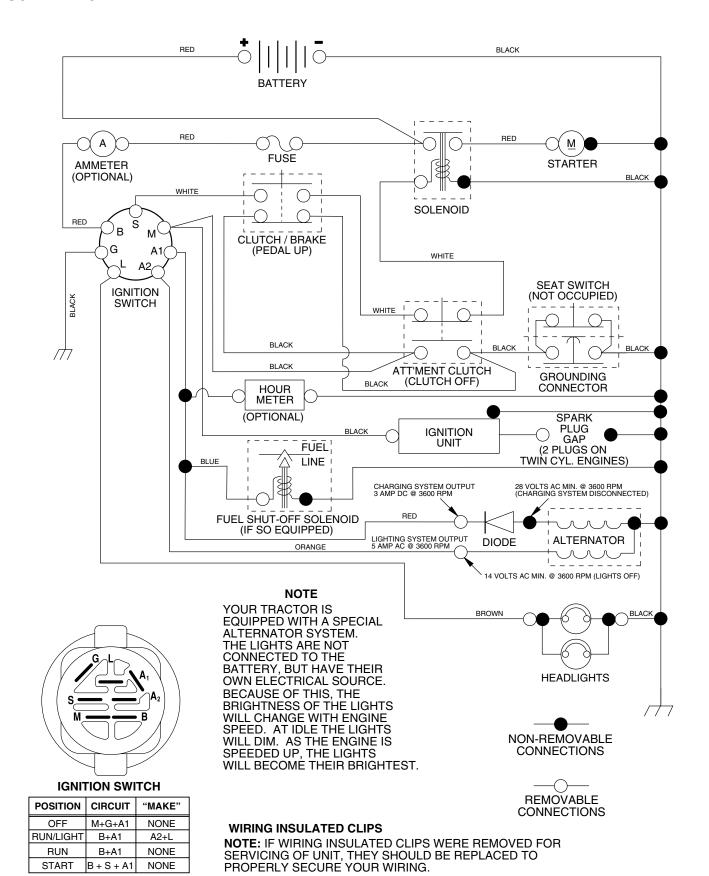
| PROBLEM                             | CAUSE  | CORRECTION  |
|-------------------------------------|--|---|
| Will not start                      | <ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty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

# TROUBLESHOOTING POINTS

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

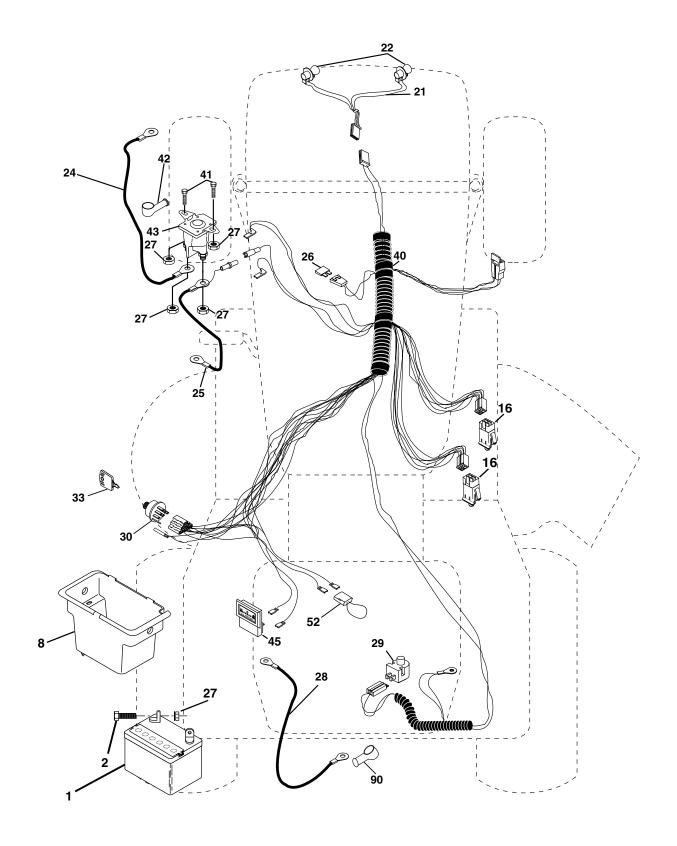
#### TRACTOR - - MODEL NUMBER 944.603150

#### **SCHEMATIC**



### TRACTOR - - MODEL NUMBER 944.603150

### **ELECTRICAL**



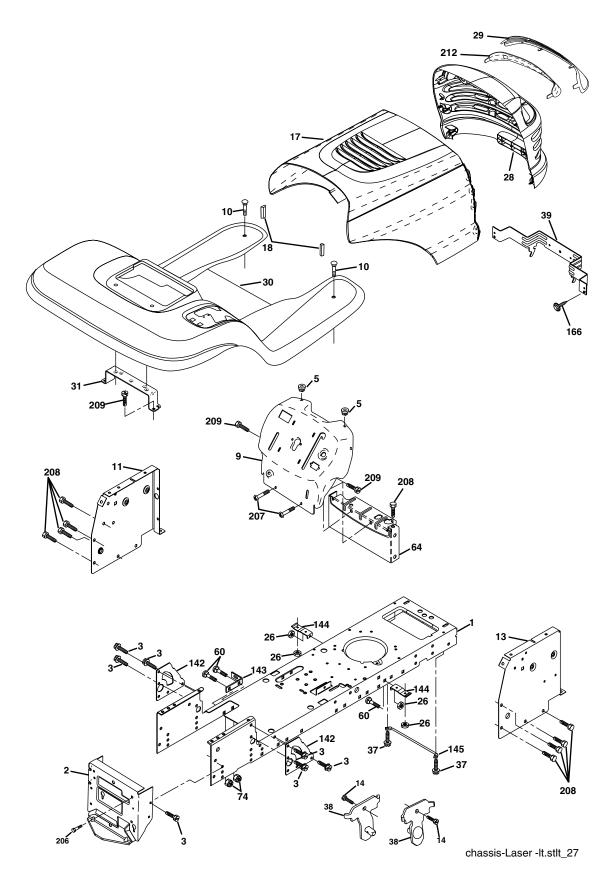
### TRACTOR - - MODEL NUMBER 944.603150

#### **ELECTRICAL**

| KEY<br>NO. | PART<br>NO. | DESCRIPTION                      |
|------------|-------------|----------------------------------|
| NO.        | NO.         | DESCRIPTION                      |
| 1          | 163465      | Battery 12 Volt 28 Amp           |
| 2          | 74760412    | Bolt Hex Hd 1/4-20unc X 3/4      |
| 8          | 176689      | Case Battery                     |
| 16         | 176138      | Switch Interlock Push-In         |
| 21         | 175688      | Harness Asm Light W/4152J        |
| 22         |             | Bulb Light #1156                 |
| 24         |             | Cable Battery 6 Ga 11"red        |
| 25         | -           | Cable Battery 6 Ga w/16 wire,red |
| _          | 175158      | Fuse 20 AMP                      |
|            | 73510400    | Nut Kep Hex 1/4-20               |
| 28         |             | Cable Ground 6 Ga 12" black      |
| _          | 121305X     | Switch Plunger Nc Gray           |
| 30         |             | Switch Ign                       |
| 33         |             | Key Ign                          |
| 40         | 179720      | Harness Ign                      |
|            | 71110408    | Bolt Blk Fin Hex 1/4-20unc X 1/2 |
| 42         |             | Cover Terminal Red               |
| 43         | 178861      | Solenoid                         |
| 45         | 121433X     | Ammeter                          |
| 52         | 141940      | Protection Wire Loop (Hourmeter) |
| 90         | 180449      | Cover Terminal Battery           |

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

# TRACTOR - - MODEL NUMBER 944.603150 CHASSIS AND ENCLOSURES



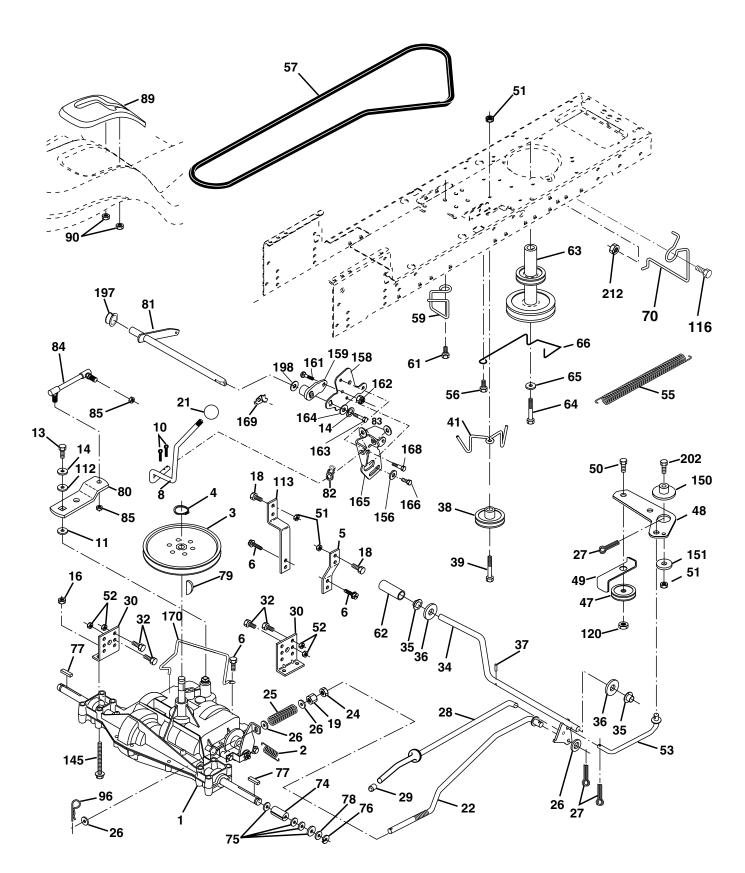
# TRACTOR - - MODEL NUMBER 944.603150 CHASSIS AND ENCLOSURES

| KEY<br>NO.   | PART<br>NO.                      | DESCRIPTION   |
|--|----------------------------------|---|
| 1 2 3 5 9 10 11 13 14 17 18 26 28 29 30 31 37 38 39 60 64 74 142 143 144 145 166 207 208 209 212 | STD533707<br>154798<br>STD541437 | Bumper Hood<br>Nut Lock Hex W/Ins 3/8-16 Unc<br>Grille/Len Laser<br>Lens Grille |

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

### TRACTOR - - MODEL NUMBER 944.603150

### **DRIVE**



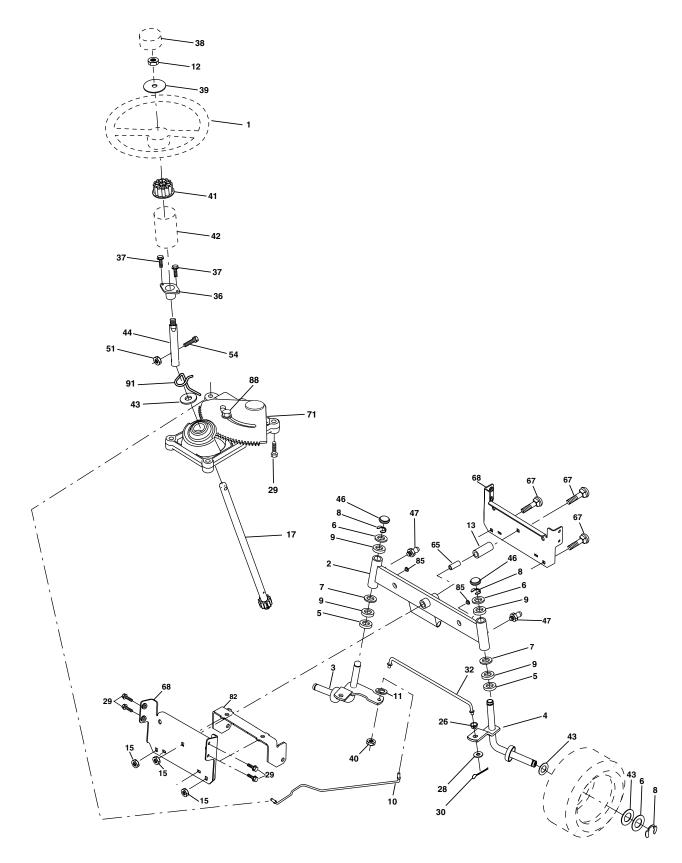
### TRACTOR - - MODEL NUMBER 944.603150

### **DRIVE**

| KEY PART<br>NO. NO. | DESCRIPTION   | KEY PART<br>NO. NO.   | DESCRIPTION   |
|---------------------|---|---|---|
| 1                   | Transaxle (See Breakdown) Peerless 206-545C Spring Return Brake T/a Zinc Pulley Transaxle 18" tires Ring Retainer # 5100-62 Strap Torque 30 Degrees Screw Thdrol 5/16-18 X 3/4 TYT Rod Shift Fender Adjust LT Pin Cotter 1/8 X 1 Cad Washer Plate Shf 388 Sq Hole Bolt 1/4-28 Unf Gr 8 W/Patch Washer Lock Hvy Helical 1/4 Nut Lock Hx w/Ins 5/16-18 Unc Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5 Nut Lock 3/8-16 Unc Knob Rod Brake Blk Zinc 26 840 Nut Hex Jam 3/8-16 Unc Spring Rod Brake 2 00 Zinc Washer 13/32 X 13/16 X 16 Ga Pin Cotter 1/8 X 3/4 Cad Rod Brake Parking LT/YT Cap Brake Parking Bracket Mtg Transaxle Bolt Hex Hd 5/16-18unc X 3/4 Shaft Asm Pedal Foot Bearing Nylon Blk 629 Id Washer 21/32 X 1 X 16 Ga Pin Roll 3/16 X 1" Pulley Idler Flat Bolt Fin Hex 3/8-16unc X 3 Keeper Belt Idler Pulley Idler V Groove Plastic Bellcrank Asm Retainer Belt Style Spring Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5 | 64 71170764<br>65 STD55143<br>66 154778<br>70 134683<br>74 137057<br>75 121749X<br>76 STD58107<br>77 123583X<br>78 121748X<br>79 2228M<br>80 131486<br>81 165594<br>82 165711<br>83 19171216<br>84 166228<br>85 150360<br>89 158391X43<br>90 124346X<br>96 4497H<br>112 19091210<br>113 127285X<br>116 72140608<br>120 73900600<br>145 74490540<br>150 175456<br>151 19133210<br>156 166002<br>158 165589<br>159 183900<br>161 72140406<br>162 73680400<br>163 74780416<br>164 19091010<br>165 165623<br>166 166880<br>168 165492<br>169 165580<br>170 178394<br>197 169613<br>198 169593<br>202 72110614<br>212 145212 | Bolt Hex Washer Lock Hvy Hlcl Spr 7/16 Keeper Belt Engine Foolproof Guide Belt Mower Drive RH Spacer Axle Washer 25/32 X 1 1/4 X 16 Ga E-ring #5133-75 Key Square 2 0 X 1845/ 1865 Washer 25/32 X 1-5/8 X 16 Ga Key Woodruff Arm Shift Shaft Asm Cross Spring Torsion T/a Washer 17/32 X 3/4 X 16 Ga Link Transaxle Nut Lock Center 1/4 - 28 FNTHD Console Shift STLT Nut Self-thd Wsh-hd 1/4 Zinc Retainer Spring Washer 9/32 x 3/4 x 10 Ga. Strap Torque LH Bolt Rdhd Sq Neck 3/8-16 x 1 Nut Lock Flg 3/8-16 Unc Bolt Hex 5/16-18 Gr. 5 Bushing Retainer Washer 13/32 x 2 x 10 Washer Srrted 5/16 ID X 1 X .125 Bracket Shift Mount Hub Tapered Flange Shift LT Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr. 5 Nut Crownlock 1/4-20 Unc Bolt Hex Fin 1/4-20 Unc x 1 Gr. 5 Washer 5/8 x .281 x 10 Ga. Bracket Pivot Lever Screw 5/16-18 x 5/8 Bolt Shoulder 5/16-18 x .561 Plate Fastening LT Keeper Belt Transaxle Nyliner Snap-In Washer Nyliner Bolt 3/8-16 x 1-3/4 Gr. 5 Nut Hexflange Lock |
| 63 175410           | Engine Pulley LT/YT   |   |   |

### TRACTOR - - MODEL NUMBER 944.603150

### STEERING ASSEMBLY



### TRACTOR - - MODEL NUMBER 944.603150

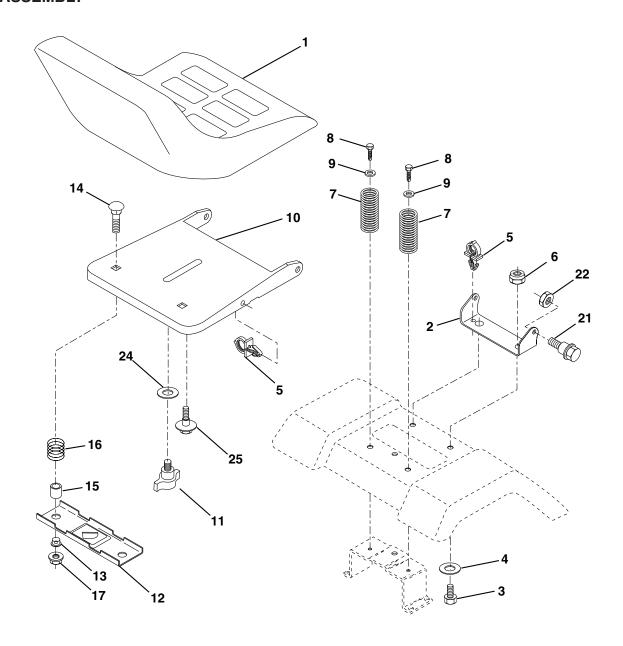
#### STEERING ASSEMBLY

| KEY<br>NO. | PART<br>NO.          | DESCRIPTION                                      |
|------------|----------------------|--|
| 1<br>2     | 139768<br>175131     | Wheel Steering Axle Asm Welded LT/STL            |
| 3          | 169840               | Spindle Asm LH                                   |
| 4          | 169839               | Spindle Asm RH                                   |
| 5          | 6266H                | Bearing Race Thrust Harden                       |
| 6          | 121748X              | Washer 25/32 X 1-5/8 X 16 Ga                     |
| 7          | 19272016             | Washer 27/32 X 1-1/4 X 16 Ga                     |
| 8<br>9     | 12000029<br>3366R    | Ring Klip #t5304-75                              |
| 10         | 175121               | Bearing Col Strg Blk Link Drag Extended Stamp    |
| 11         | STD551137            | Washer Lock Hvy Hlcl Spr 3/8                     |
| 12         | 73940800             | Nut Hex Jam Toplock 1/2-20 Unf                   |
| 13         | 136518               | Spacer Bearing Axle                              |
| 15         | 145212               | Nut Hex Flange Lock                              |
| 17         | 180641               | Shaft Asm Strg                                   |
| 26         | 126847X              | Bushing Link Drag Blk LR                         |
| 28<br>29   | 19131416<br>17060612 | Washer 13/32 X 7/8 X 16 Ga<br>Screw 3/8-16 x 3/4 |
| 30         | STD561210            | Pin Cotter 1/8 X 3/4 Cad                         |
| 32         | 130465               | Rod Tie Wire Form 19 75 Mech                     |
| 36         | 155099               | Bushing Strg                                     |
| 37         | 152927               | Screw  |
| 38         | 139769               | Insert Cap Strg Wh Au                            |
| 39         | 19183812             | Washer 9/16 x 2-3/8                              |
| 40<br>41   | STD541537<br>100711L | Lock nut<br>Adaptor Wheel Strg                   |
| 42         | 145054X428           |  |
| 43         | 121749X              | Washer 25/32 X 1 1/4 X 16 Ga                     |
| 44         | 180640               | Extension Steering Shaft LR/LT                   |
| 46         | 121232X              | Cap Spindle Fr Top Blk                           |
| 47         | 183226               | Fitting Grease                                   |
| 51<br>54   | 73540400             | Nut Crownlock 1/4-28                             |
| 54<br>65   | 71130420<br>160367   | Bolt Hex 1/4-28 Unf x 1-1/4<br>Spacer Brace Axle |
| 67         | 72140618             | Bolt Rdhd Sq 3/8-16 x 2-1/4                      |
| 68         | 169827               | Axle, Brace                                      |
| 71         | 175146               | Steering Asm                                     |
| 82         | 169835               | Bracket  |
| 85         | 133835               | Fastener Christmas Tree                          |
| 88         | 175118               | Bolt Shoulder 7/16-20 Unc                        |
| 91         | 175553               | Clip Steering                                    |

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

### TRACTOR - - MODEL NUMBER 944.603150

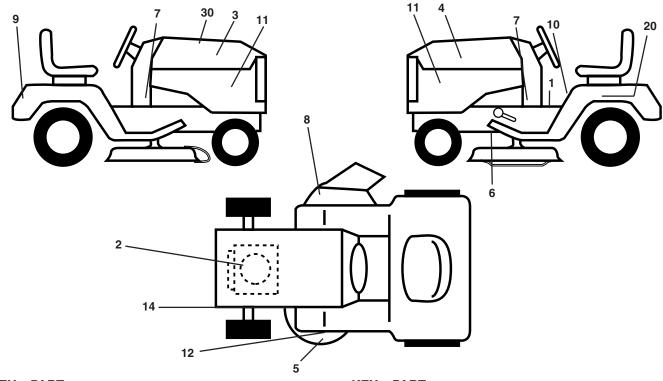
### **SEAT ASSEMBLY**



| KEY | PART      |                                | KEY  | PART          |                                     |
|-----|-----------|--------------------------------|------|---------------|-------------------------------------|
| NO. | NO.       | DESCRIPTION                    | NO.  | NO.           | DESCRIPTION                         |
| 1   | 140122    | Seat                           | 13   | 121248X       | Bushing Snap Blk Nyl 50 Id          |
| 2   | 140551    | Bracket Pivot Seat 8 720       | 14   | 72050412      | Bolt Rdhd Sqnk 1/4-20x1-1/2         |
| 3   | 71110616  | Bolt Fin Hex 3/8-16unc X 1     | 15   | 134300        | Spacer Split 28x 96 Yel Zinc        |
| 4   | 19131610  | Washer 13/32 X 1 X 10 Ga       | 16   | 121250X       | Spring Cprsn 1 27 Blk Pnt           |
| 5   | 145006    | Clip Push-In                   | 17   | 123976X       | Nut Lock 1/4 Lge Flg Gr 5 Zinc      |
| 6   | STD541437 | Nut Hex w/Ins. 3/8-16 Unc      | 21   | 171852        | Bolt Shoulder 5/16-18 Unc           |
| 7   | 124181X   | Spring Seat Cprsn 2 250 Blk Zi | 22   | STD541431     | Nut Hex Lock W/Ins 5/16-18          |
| 8   | 17000616  | Screw 3/8-16 X 1.5             | 24   | 19171912      | Washer 17/32 X 1-3/16 X 12 Ga.      |
| 9   | 19131614  | Washer 13/32 X 1 X 14 Ga.      | 25   | 127018X       | Bolt Shoulder 5/16-18 X 62          |
| 10  | 182493    | Pan Seat                       |      |               |                                     |
| 11  | 166369    | Knob Seat                      | NOTI | E: All compon | ent dimensions given in U.S. inches |
| 12  | 121246X   | Bracket Mounting Switch        |      | 1 inch = 25.  |                                     |

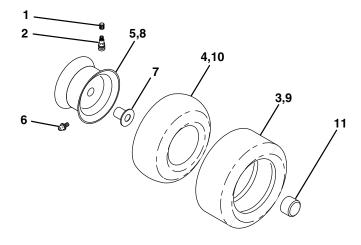
### TRACTOR - - MODEL NUMBER 944.603150

### **DECALS**



| KEY | PART   |                            | KEY | PART       |                                |
|-----|--------|----------------------------|-----|------------|--------------------------------|
| NO. | NO.    | DESCRIPTION                | NO. | NO.        | DESCRIPTION                    |
| 1   | 156369 | Decal Fend STLT Oper       | 11  | 184730     | Decal Side Panel               |
| 2   | 184847 | Decal Engine               | 12  | 179128     | Decal Mower "B" "42"           |
| 3   | 184729 | Decal Hood LH              | 14  | 160396     | Decal V-Belt Schematic         |
| 4   | 184728 | Decal Hood RH              | 20  | 149517     | Decal Bat Dan/Psn              |
| 5   | 172331 | Decal Deck Heavy Duty      | 30  | 186877     | Decal Replacement Parts        |
| 6   | 146046 | Decal V Belt Drive Sch     |     | 165800X428 | Pad Footrest LH STLT           |
| 7   | 181685 | Decal Lower Dash           |     | 165799X428 | Pad Footrest RH STLT           |
| 8   | 170563 | Decal Warning              |     | 138311     | Decal Handle Lft Height Adjust |
| 9   | 184899 | Decal Craftsman            |     | 186918     | Manual Owner's (English)       |
| 10  | 157140 | Decal Fender Danger Eng/Fr |     | 186919     | Manual Owner's (French)        |

### **WHEELS & TIRES**

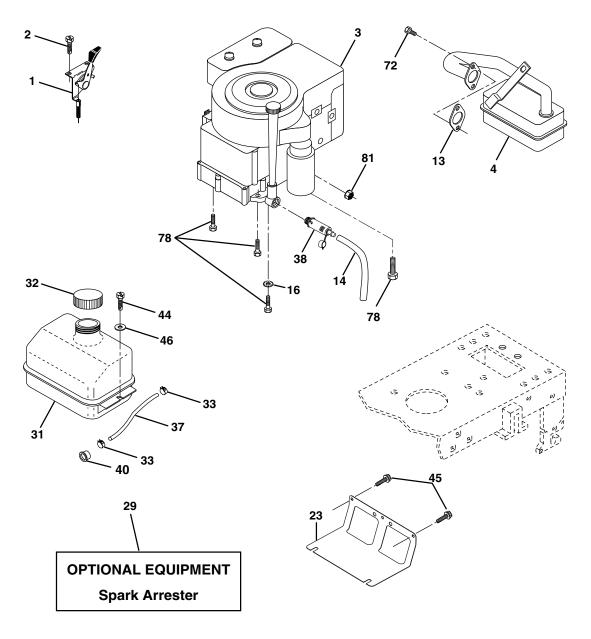


| KEY<br>NO. | PART<br>NO. | DESCRIPTION                       |
|------------|-------------|-----------------------------------|
| 1          | 59192       | Cap Valve Tire                    |
| 2          | 65139       | Stem Valve                        |
| 3          | 106222X     | Tire F                            |
| 4          | 59904       | Tube Front (Service Item Only)    |
| 5          | 106732X624  | Rim Asm 6"front Service           |
| 6          | 278H        | Fitting Grease (Front Wheel Only) |
| 7          | 9040H       | Bearing Flange (Front Wheel Only) |
| 8          | 106108X624  | Rim Asm 8"rear Service            |
| 9          | 124635X     | Tire R                            |
| 10         | 7152J       | Tube Rear (Service Item Only)     |
| 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

# TRACTOR - - MODEL NUMBER 944.603150

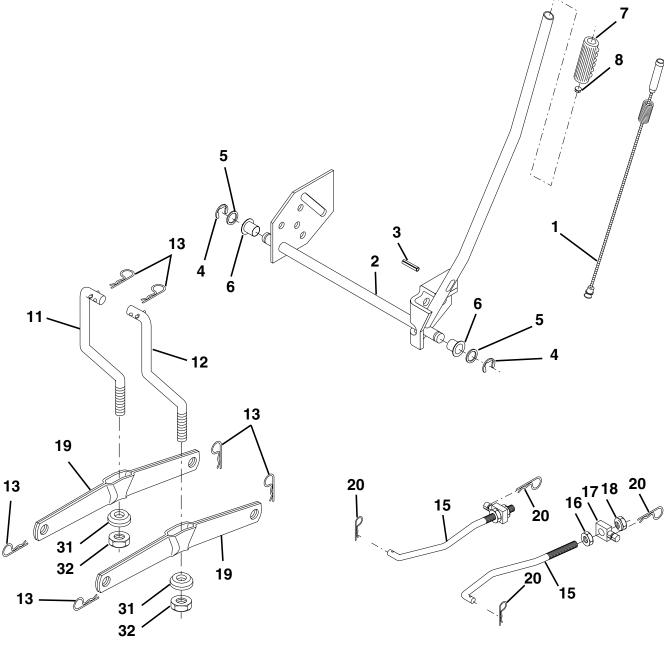
### **ENGINE**



| KEY<br>NO. | PART<br>NO. | DESCRIPTION                    | KEY<br>NO. | PART<br>NO.                  | DESCRIPTION                          |
|------------|-------------|--------------------------------|------------|------------------------------|--------------------------------------|
| 1          | 170545      | Control Throt /Ch              | 33         | 123487X                      | Clamp Hose Blk                       |
| 2          | 17720408    | Screw Hex Thd Cut 1/4-20 x 1/2 | 37         | 137040                       | Line Fuel 20"                        |
| 3          |             | Engine (See Breakdown)         | 38         | 181654                       | Plug Drain Oil Easy                  |
|            |             | B&S, Model 282H07-0231-E1      | 40         | 124028X                      | Bushing Snap Nyl Blk Fuel Line       |
| 4          | 137352      | Muffler Exhaust B&s Lt         | 44         | 17670412                     | Screw Hexwsh Thdrol 1/4-20x3/4       |
| 13         | 165291      | Gasket                         | 45         | 17000612                     | Screw Hex Wsh Thdrol 3/8-16 x 3/4    |
| 14         | 148456      | Tube Drain Oil Easy            | 46         | 19091416                     | Washer 9/32 X 7/8 X 16ga             |
| 16         | STD551237   | Washer Lock Ext Tooth 3/8      | 72         | 183906                       | Screw Socket Head 5/16-18 x 1        |
| 23         | 169837      | Shield Browning                | 78         | 17060620                     | Screw 3/8-16x1-1/4                   |
| 29         | 137180      | Arrestor Spark                 | 81         | 73510400                     | Nut Keps Hex 1/4-20 Unc              |
| 31         | 184900      | Tank Fuel 1 25 Fr              | NOTE       |                              |                                      |
| 32         | 140527      | Cap Asm Fuel W/sym Vented      | NOTE       | :: All compoi<br>1 inch = 25 | nent dimensions given in U.S. inches |

# **TRACTOR - - MODEL NUMBER 944.603150**

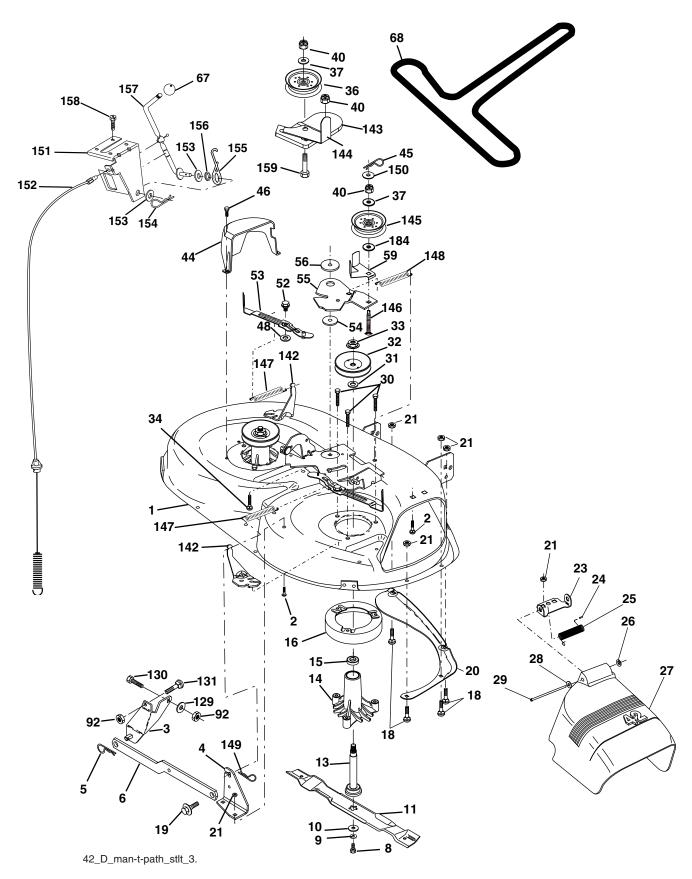
### **MOWER LIFT**



| KEY<br>NO. | PART<br>NO. | DESCRIPTION                   | KEY<br>NO. | PART<br>NO.                  | DESCRIPTION                                  |
|------------|-------------|-------------------------------|------------|------------------------------|--|
| 1          | 159460      | Wire Asm Inner W/Plunger      | 13         | STD624008                    | Retainer Spring                              |
| 2          | 159471      | Shaft Asm Lift                | 15         | 173288                       | Link Front                                   |
| 3          | 105767X     | Pin Groove                    | 16         | 73350800                     | Nut Jam Hex 1/2-13 Unc                       |
| 4          | STD581062   | E Ring                        | 17         | 175689                       | Trunnion Blk Zinc                            |
| 5          | 19211621    | Washer 29/32 x 1-1/4 x 21 Ga. | 18         | 73800800                     | Nut Lock W/Wsh 1/2-13 Unc                    |
| 6          | 120183X     | Bearing Nylon Blk .629 ID     | 19         | 139868                       | Arm Suspension Rear                          |
| 7          | 125631X     | Grip Handle Fluted            | 20         | 163552                       | Spring Retainer                              |
| 8          | 122365X     | Button, Plunger               | 31         | 169865                       | Bearing Pvt. Lift                            |
| 11         | 139865      | Link Lift Lh Fixed Length     | 32         | 73540600                     | Nut Lock 3/8-24                              |
| 12         | 139866      | Link Lift Rh Fixed Length     | NOT        | E: All compon<br>1 inch = 25 | ent dimensions given in U.S. inches<br>.4 mm |

### TRACTOR - - MODEL NUMBER 944.603150

### **MOWER DECK**



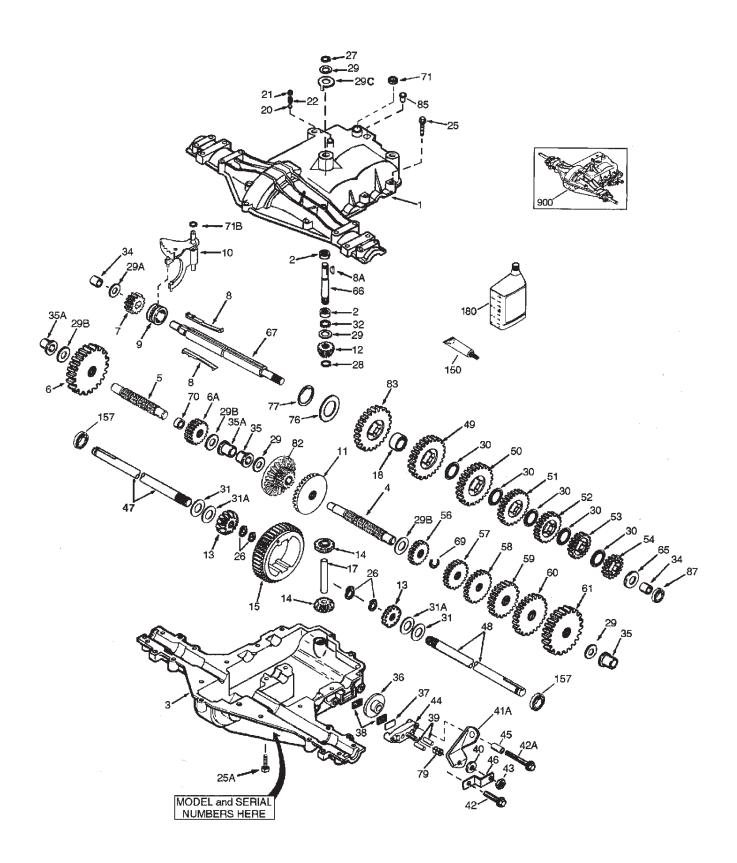
# TRACTOR - - MODEL NUMBER 944.603150

### **MOWER DECK**

| KEY<br>NO.   | PART<br>NO.   | DESCRIPTION  | KEY<br>NO.   | PART<br>NO.  | DESCRIPTION  |
|--|---|--|--|--|--|
| 1<br>2   | 165892<br>STD533107   | Mower Deck Assembly, 42" Bolt RDHD SQNK 5/16-18 Unc x 3/4  | 40<br>44<br>45   | STD541437<br>140088<br>STD624003   | Nut Crownlock 3/8-16 UNC<br>Guard, Mandrel, L.H.<br>Retainer   |
| 3  | 138017  | Bracket Assembly,Sway Bar, Front   | 46<br>48   | 137729<br>133944   | Screw, Thd. Roll 1/4-20 x 5/8 Washer, Hardened   |
| 4<br>5<br>6<br>8<br>9<br>10<br>11  | 165460<br>STD624008<br>178024<br>850857<br>STD551137<br>140296<br>134149  | Bracket Sway Bar 38/42" Deck Retainer Spring Bar, Sway Deck Bolt, Hex 3/8-24 x 1.25 Gr. 8 Washer, Lock Washer, Hardened Blade, Mulching 42" Std (Originally equipped with)   | 52<br>53<br>54<br>55<br>56<br>59<br>67<br>68   | 139888<br>184907<br>178515<br>155046<br>165723<br>141043<br>149846<br>144959   | Bolt, Shoulder 5/16-18 UNC Arm Assembly, Pad, Brake Washer, Hardened Arm, Idler Spacer, Retainer Guard, TUV Idler Knob Custom Oval V-Belt  |
|  | 139775  | Blade Mulching 42" Premium (For  | 92   | STD541437  | Nut  |
|  | 138971  | better wear when mulching) Blade Mower 42" Hi-Lift Premium (For better wear when bagging in heavy or wet conditions)   | 129<br>130<br>131<br>142   | 19131312<br>STD523710<br>STD533710<br>165890   | Washer 13/32 x 13/16 x 12 Ga. Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5 Bolt, Rdhd Sqnk 3/8-16UNC x 1 Arm Spring Brake Mower  |
| 13<br>14<br>15<br>16<br>18<br>19<br>20<br>21<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>36<br>37 | 137645<br>128774<br>110485X<br>174493<br>72140505<br>132827<br>159770<br>STD541431<br>177563<br>105304X<br>123713X<br>110452X<br>130968X428<br>19111016<br>131491<br>173984<br>129963<br>153535<br>178342<br>STD533717<br>131494<br>STD551037 | Shaft Asm. w/Lower Bearing Housing, Mandrel, Vented Bearing, Ball, Mandrel Stripper, Vented Mower Deck Bolt, Carriage 5/16-18 x 5/8 Bolt, Shoulder Baffle, Vortex Nut Crownlock 5/16-18 UNC Bracket, Deflector Cap, Sleeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Washer 11/32 x 5/8 x 16 Ga. Rod, Hinge Screw Thdrol DOD PT Hex Washer, Spacer Pulley, Mandrel Nut, Toplock, Flanged Bolt RDHD 3/8-16 x 1-3/4 Pulley, Idler, Flat Washer 13/32 x 13/16 x 16 | 143<br>144<br>145<br>146<br>147<br>148<br>149<br>150<br>151<br>152<br>153<br>154<br>155<br>156<br>157<br>158<br>159<br>184 | 157109<br>158634<br>165888<br>171977<br>131340<br>169022<br>165898<br>19091216<br>169670<br>169676<br>169674<br>169675<br>169671<br>169672<br>169669<br>17720408<br>72140614<br>19131410<br>130794 | Bracket Arm Idler 42" Keeper Belt 42" Clutch Cable Pulley Idler Flat Bolt Carriage Idler Spring Extension Spring Return Idler Retainer Spring Yellow Zinc Washer 9/32 x 3/4 x 16 Ga. Bracket Clutch Cable Clutch 42 In Washer Flat 3/8" Type B Spring Retainer Spring Retainer Spring Retention Lever Spacer Rod Clutch Screw Hex Thd Cut 1/4-20 x 1/2 Bolt Rdhd Sqn 3/8-16 Unc x 1-3/4 Washer 13/32 x 7/8 x 10 Ga. Mandrel Assembly (Includes Housing, Shaft and shaft Hardware Only-Pulley not included) Replacement Mower, Complete |
| 07   | 512001007   | Gauge  |  |  | ent dimensions given in U.S. inches  |

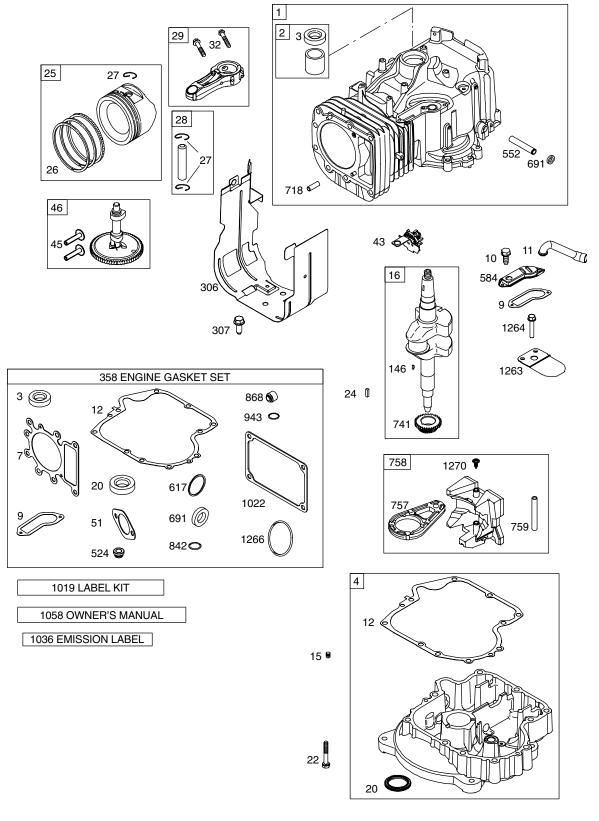
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# TRACTOR - - MODEL NUMBER 944.603150 PEERLESS TRANSAXLE - MODEL NUMBER 206-545C

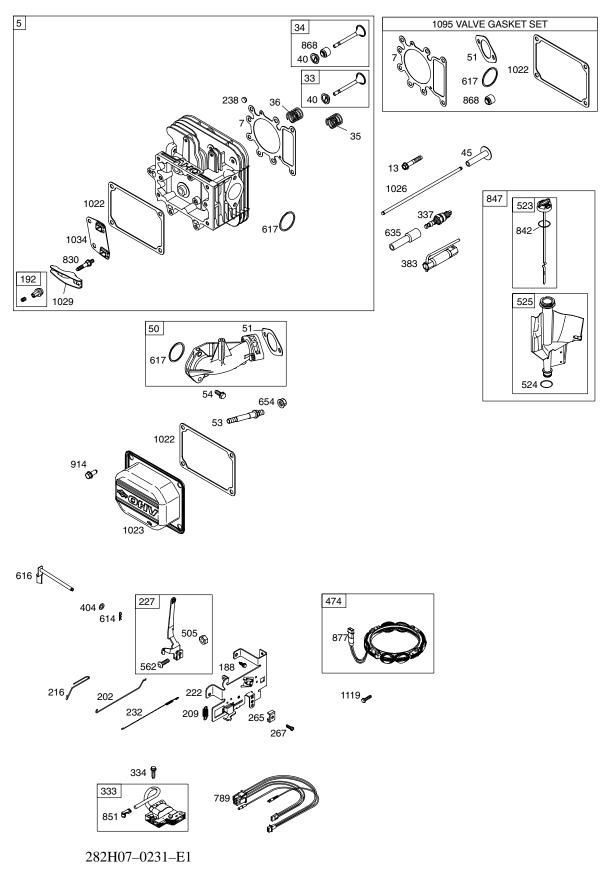


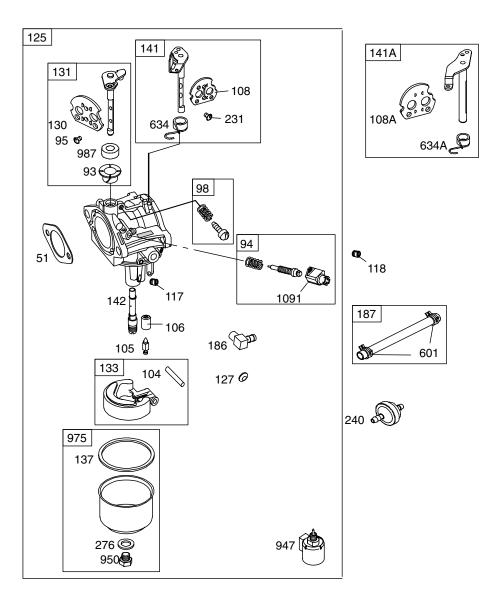
# TRACTOR - - MODEL NUMBER 944.603150 PEERLESS TRANSAXLE - MODEL NUMBER 206-545C

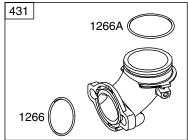
| KEY<br>NO. | PART<br>NO. | DESCRIPTION                           | KEY<br>NO. | PART<br>NO. | DESCRIPTION                          |
|------------|-------------|---------------------------------------|------------|-------------|--------------------------------------|
| 1          | 772147      | Transaxle Cover                       | 41A        | 790079      | Brake Lever                          |
| 2          | 780086A     | Needle Bearing 5/8"                   | 42         | 792073A     | Screw 1/4 - 20 x 1-1 /4"             |
| 3          | 770128      | Transaxle Case                        | 42A        | 792085A     | 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)              |
| A8         | 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) (Include. 14)   | 54         | 778346      | Spur Gear (15 teeth)                 |
| 14         | 778368      | Bevel Pinion (13 teeth) (Include. 13) | 56         | 778355      | Spur Gear (11 teeth)                 |
| 15         | 778370      | Ring Gear (43 teeth)                  | 57         | 778337      | Spur Gear (13 teeth)                 |
| 17         | 786188      | Drive Pin                             | 58         | 778353      | Spur Gear (17 teeth)                 |
| 18         | 786102      | Spacer 1.130 X .695                   | 59         | 778351      | Spur Gear (21 teeth)                 |
| 20         | 792077A     | Ball 5/16" dia                        | 60         | 778349      | Spur Gear (24 teeth)                 |
| 21         | 792078      | Set Screw 3/8 - 16 x 3/8"             | 61         | 778345      | Spur Gear (25 teeth)                 |
| 22         | 792079      | Spring .310 OD x .625 L               | 65         | 780189      | Flat Washer .563 ID x .062W          |
| 25         | 792073A     | Screw 1/4 - 20 x 1-1/4"               | 66         | 776422      | Input Shaft                          |
| 25A        | 792177      | Screw 1/4-20 x 1-3/8"                 | 67         | 776396      | Shifter & Brake Shaft                |
| 26         | 792125      | Retaining Ring (pkg of 2)             | 69         | 792170      | Retaining Ring                       |
| 27         | 792035      | Retaining Ring                        | 70         | 786187      | Spacer .890                          |
| 28         | 788040      | Retaining Ring                        | 71         | 788069      | Square Cut Ring                      |
| 29         | 780072      | Thrust Washer .627 ID x .031W         | 71B        | 788092      | "O" Ring                             |
| 29A        | 780160      | Thrust Washer .762 ID x .031W         | 76         | 780090      | Flat Washer 1.128 ID x .058W         |
| 29B        | 780051      | Thrust Washer .762 ID x .031W         | 77         | 788078A     | Inverted Retaining Ring              |
| 29C        | 780199      | Anti-Rotation Washer .632             | 79         | 792144      | Spring .430 OD x .5000 L             |
| 30         | 780108      | Cup Washer 1.127 ID x .032W           | 82         | 778333      | Bevel & Spur Gear (30 & 13 teeth)    |
| 31         | 780001      | Flat Washer .750 ID x .056W (Use      | 83         | 778338      | Spur Gear (27 teeth)                 |
| 0.4.4      | 700405      | As Needed)                            | 85         | 792154      | Oil Fill Plug                        |
| 31A        | 780195      | Flat Washer .750 ID x .062W           | 87         | 788089A     | Oil Seal 9 / 16"                     |
| 32         | 788083      | Oil Seal 5/8"                         | 150        | 788093A     | Liquid Gasket RTV Silicone           |
| 34         | 780194      | Bushing .563                          | 157        | 788088A     | Oil Seal 3 /4"                       |
| 35         | 780193      | Flanged Bushing 5 / 8" ID             | 180        | 730229A     | Gear Oil 80W90                       |
| 35A        | 780197      | Flanged Bushing .751                  | 900        | 794712      | Replacement MST - 206-545C           |
| 36         | 790075      | Brake Disk                            |            |             | Transaxle                            |
| 37         | 790007      | Brake Pad Plate                       | NOT        | - All       | and disconnique airea in 110 in the  |
| 38         | 799021      | Brake Pad (pkg of 2)                  |            |             | nent dimensions given in U.S. inches |
| 39         | 786026      | Dowel Pin                             | i inci     | n = 25.4 mm |                                      |
| 40         | 792076A     | Flat Washer .312 ID x .059W           |            |             |                                      |

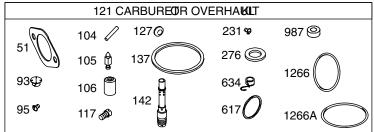


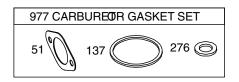
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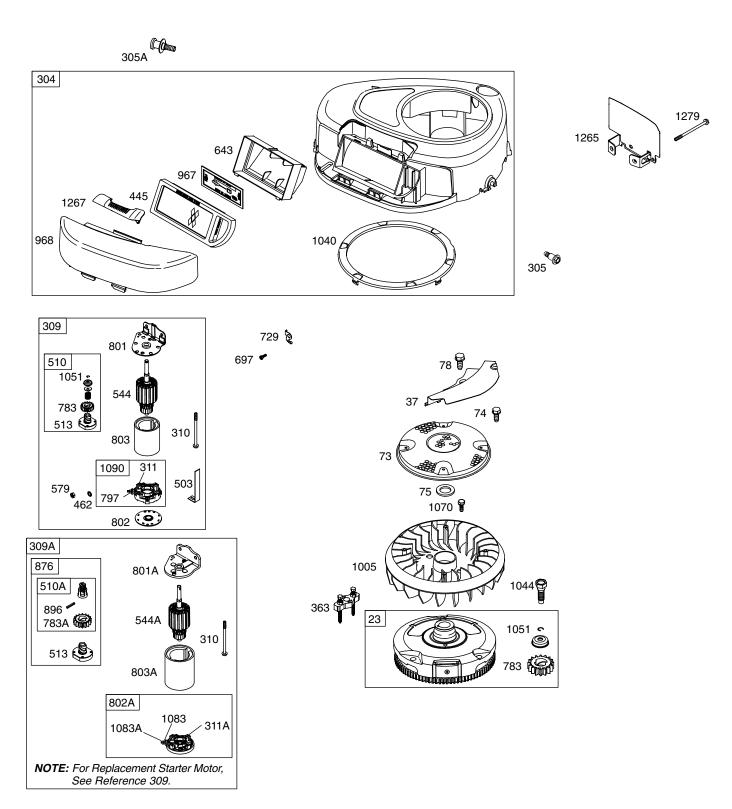








# TRACTOR - - MODEL NUMBER 944.603150 BRIGGS & STRATTON ENGINE - MODEL NUMBER 282H07, TYPE NUMBER 0231-E1



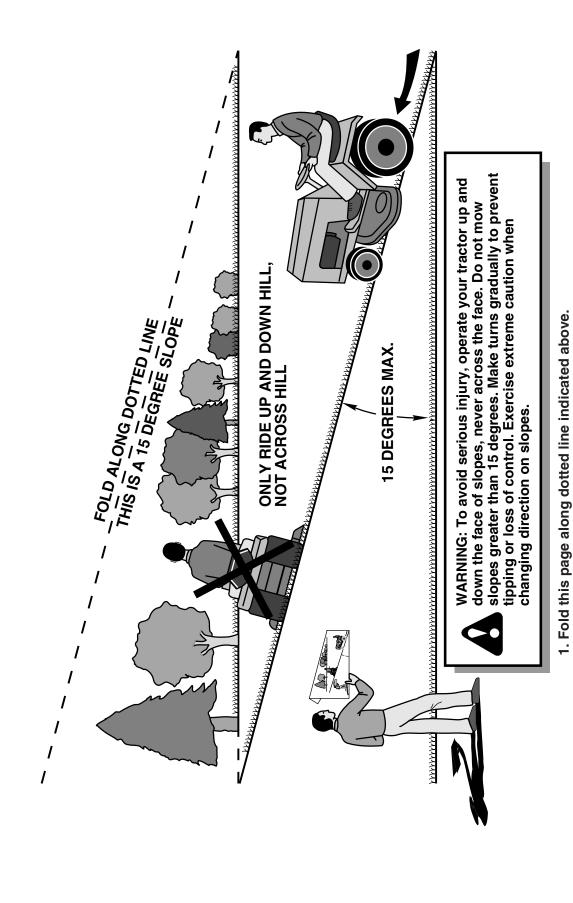
282H07-0231-E1

| 1  | KEY<br>NO. | PART<br>NO. | DESCRIPTION                         | KEY<br>NO. | PART<br>NO. | DESCRIPTION                           |
|--|------------|-------------|-------------------------------------|------------|-------------|---------------------------------------|
| 2 399265   | 1          | 697132      | Cylinder Assembly                   | 137        | 281165      | Øt Gasket-Float Bowl                  |
| 391086   Saal-Oil (Magneto Sicle)   1414   495931   Kit-Choke Shaft (Choke A Matic)  |            |             |                                     |            |             |                                       |
| 697106   697107   697109   697100   697110   6   |            |             |                                     |            |             |                                       |
| Figure   Head-Cylinder   Hea   |            |             |                                     |            |             |                                       |
| 7 273280   |            |             |                                     | 146        | 691639      |                                       |
| 10   697151   Tube-Pieralter   192   691996   G97161   G97161   Tube-Pieralter   192   691996   G97161   G971   | 7          | 273280      |                                     | 186        | 692317      | Connector-Hose                        |
| 11   | 9          | 697109      | <ul> <li>Gasket-Breather</li> </ul> | 187        | 691050      | Line-Fuel (Cut to Required Length)    |
| 13   69360   Screw (Cylinder Head)   209   692208   597102   597103   69360   Screw (Cylinder Head)   216   691840   597104   597104   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   597107   5981-010   |            |             | `                                   |            |             |                                       |
| 13   |            |             |                                     |            |             | ,                                     |
| 15   |            |             |                                     |            |             |                                       |
| 16   |            |             |                                     |            |             |                                       |
| 20   |            |             |                                     |            |             |                                       |
| 23   |            |             |                                     |            |             |                                       |
| 232   693557   Flywheel   232   691842   Spring-Governor   |            |             | Screw (Crankcase Cover/Sump)        |            |             |                                       |
| 22688  |            |             |                                     |            |             |                                       |
| September   Piston Assembly (1010" Oversize)   240   394538   Clamp-Casing   September   Piston Assembly (1020" Oversize)   267   695134   Screw (Casing Clamp)   Screw (1030" Oversize)   267   692525   54 Washer-Sealing   Housing-Blower   Screw (Blower Housing)   Screw (Blower H   |            |             |                                     |            |             | Cap-Valve                             |
| 697117   | 25         | 697114      |                                     | 240        | 394358      |                                       |
| 697115   Ring Set (Standard')   304   6984002   Screw (Blower Housing)   |            | 697116      | Piston Assembly (.010" Oversize)    | 265        | 691024      | Clamp-Casing                          |
| Fig.      |            |             |                                     |            |             |                                       |
| 697119   |            |             |                                     |            |             |                                       |
| 697121   | 26         |             | Ring Set (Standard)                 |            |             |                                       |
| 697121   |            |             |                                     |            |             |                                       |
| 27   |            |             |                                     |            |             |                                       |
| 28   | 27         |             |                                     |            |             |                                       |
| 29   |            |             |                                     |            |             |                                       |
| 32   692852   Screw (Connecting Rod)   Screw (Connecting Rod)  |            |             |                                     |            |             |                                       |
| 33   |            |             |                                     | 00071      |             |                                       |
| 34   495857   Valve-Intake   311   497608   Brush Set   35   691279   Spring-Valve (Intake)   313   492341   Armature-Magneto   37   697352   Guard-Flywheel   334   691061   Screw (Magneto Armature)   37   697352   Guard-Flywheel   334   691061   Screw (Magneto Armature)   37   697352   Guard-Flywheel   334   691061   Screw (Magneto Armature)   37   491055   Plug-Spark   38   691151   Gasket Set-Engine   45   690564   Tappet-Valve   363   19203   Flywheel Puller   46   697687   Camshaft   383   89838   Wrench-Spark Plug   Washer (Governor Crank)   47   697122   Elbow-Intake   697761   Short Block (31C707-0230-E2 Replace-ment Engine-art not available)   431   697122   Elbow-Intake   697761   Short Block (31C707-0230-E2 Replace-ment Engine-art not available)   431   697122   Elbow-Intake   697122   Elbow-Intake   698137   602127   Stud (Carburetor)   474   698683   Filter-Air Cleaner Cartridge   46   6911261   Washer (Starter Cable)   474   696459   Alternator   474   696459   Alternator   474   697481   Screw (Intake Manifold)   503   691251   Nut (Governor Control Lever)   505   691251   Nut (Governor Control Lever)   510   693689   Drive-Starter   510   693   |            |             | ` ,                                 | 310        | 690323      |                                       |
| 36   |            |             | Valve-Intake                        | 311        | 497608      |                                       |
| 37   |            |             | Spring-Valve (Intake)               |            |             |                                       |
| 40   691752   Retainer Valve   337   491055   Plug-Spark   43   691968   Slinger-Governor/Oil   358   697151   Gasket Set-Engine   45   690564   Tappet-Valve   363   19203   Flywheel Puller   46   697687   Camshaft   383   89838   Wrench-Spark Plug   Washer (Governor Crank)   Elbow-Intake   48   697761   Short Block (31C707-0230-E2 Replace-ment Engine-art not available)   431   697122   Elbow-Intake   Elbo   |            |             |                                     |            |             |                                       |
| 43 691968 Slinger-Governor/Oil 45 690564 Tappet-Valve 46 697687 Camshaft 47 690761 Short Block (31C707-0230-E2 Replacement Engine-art not available) 48 697761 Short Block (31C707-0230-E2 Replacement Engine-art not available) 49 69193 Manifold-Intake 40 691691 Washer (Governor Crank) 41 692137 *ر+ Gasket-Intake 42 698083 Filter-Air Cleaner Cartridge 43 691261 Washer (Starter Cable) 43 697122 Sluow-Intake 445 698083 Filter-Air Cleaner Cartridge 45 691261 Washer (Starter Cable) 47 691148 Screw (Intake Manifold) 47 691532 Strap-Starter 48 691034 Screen-Rotating 49 50 691532 Strap-Starter 49 697987 Screw (Rotating Screen) 49 690602 Washer (Flywheel) 49 690602 Ø Bushing-Throttle Shaft 49 690602 Ø Pin-Float Hinge 49 79 79 79 79 79 79 79 79 79 79 79 79 79  |            |             |                                     |            |             |                                       |
| 45 690564 Tappet-Valve 46 697687 Camshaft 47 Camshaft 48 697761 Short Block (31C707-0230-E2 Replace- 48 697761 Short Block (31C707-0230-E2 Replace- 49 691691 Washer (Governor Crank) 48 697122 Elbow-Intake 50 690193 Manifold-Intake 51 692137 *○‡+ Gasket-Intake 51 692137 *○‡+ Gasket-Intake 52 691261 Washer (Starter Cable) 53 690227 Stud (Carburetor) 54 691148 Screw (Intake Manifold) 50 691251 Nut (Governor Cartridge 51 697384 Screw (Rotating Screen) 52 697887 Screw (Rotating Screen) 53 690582 Washer (Flywheel) 54 691003 Screw (Flywheel Guard) 55 690582 Washer (Flywheel) 56 691636 Screw (Throttle Valve) 57 691636 Screw (Throttle Valve) 58 49800 Kit-Idle Speed 59 691636 Screw (Throttle Valve) 59 691636 Screw (Throttle Valve) 50 690577 Ø Seat-Inlet 50 7940 Valve-Choke (Manual Choke) 50 69124 Valve-Choke (Manual Choke) 50 697190 Carburetor 510 697492 Jet-Main (High Altitude) 511 697492 Gasket Set, Key. No. 1095 512 697190 Carburetor 513 690750 Valve-Throttle 514 691750 Valve-Throttle 515 697190 Carburetor 516 69757 Valve-Throttle 517 694352 Ø Jet-Main (High Altitude) 518 697492 Gasket Set, Key. No. 1095 519 697750 Valve-Throttle 510 Flug-Welch 511 1inch = 25.4 mm 50 11 inch = 25.4 mm 50 125.4  |            |             |                                     |            |             |                                       |
| 48 697687 Camshaft Short Block (31C707-0230-E2 Replacement Engine-art not available) 404 691691 Washer (Governor Crank) ment Engine-art not available) 431 697122 Elbow-Intake 50 690193 Manifold-Intake 445 698083 Filter-Air Cleaner Cartridge Washer (Starter Cable) 51 692137 *؇+ Gasket-Intake 462 691261 Washer (Starter Cable) 53 690227 Stud (Carburetor) 474 696459 Alternator 54 691148 Screw (Intake Manifold) 503 691532 Strap-Starter 73 697384 Screen-Rotating 505 691251 Nut (Governor Control Lever) 74 697987 Screw (Rotating Screen) 510 693699 Drive-Starter 75 690582 Washer (Flywheel) 510A 497606 Drive-Starter 76 691003 Screw (Flywheel Guard) 513 692024 Clutch-Drive 77 691636 Screw (Throttle Shaft 523 697086 Dipstick Tube 77 691636 Screw (Throttle Valve) 525 697184 Tube-Dipstick Tube 77 694352 Valve-Choke (Manual Choke) 70 Seat-Inlet 71 694352 Valve-Choke (Manual Choke) 71 Included in Engine Gasket Set, Key, No. 358 71 Included in Carburetor Overhaul Kit, Key. No. 1095 71 Included in Carburetor Gasket Set, Key. No. 977 71 18 697492 Jet-Main (High Altitude) 1 Included in Carburetor Gasket Set, Key. No. 1095 71 Included in Carburetor Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Carburetor Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve Gasket Set, Key. No. 1095 71 Included in Valve    |            |             |                                     |            |             |                                       |
| 48 697761 Short Block (31C707-0230-E2 Replace- ment Engine-art not available) 50 690193 Manifold-Intake 51 692137 *0‡+ Gasket-Intake 52 690227 Stud (Carburetor) 53 690227 Stud (Carburetor) 54 691148 Screw (Intake Manifold) 55 697384 Screw (Rotating Screen) 56 697887 Screw (Rotating Screen) 57 690582 Washer (Flywheel) 58 691003 Screw (Flywheel) 59 69103 Screw (Flywheel) 50 691251 Nut (Governor Control Lever) 51 692024 Clutch-Drive 52 697086 Dipstick 53 690020 Ø Bushing-Throttle Shaft 523 697086 Dipstick 54 498030 Kit-Idle Mixture 55 691636 Screw (Throttle Valve) 56 691636 Screw (Throttle Valve) 57 690525 Ø Pin-Float Hinge 58 495800 Kit-Idle Speed 59 691636 Screw (Manual Choke) 59 691636 Screw (Throttle Valve) 50 691636 Screw (Throttle Valve) 50 691636 Screw (Throttle Valve) 510 693699 524 691032 Seal-Dipstick Tube 525 697184 Tube-Dipstick 526 697184 Tube-Dipstick 527 697086 Dipstick 58 697086 Dipstick 59 697184 Tube-Dipstick 59 697184 Tube-Operation (Standard) 59 691636 Screw (Throttle Valve) 59 691636 Screw (Throttle Valve) 50 Fin Gasket Set, Key. No. 358 50 Fin Gasket Set, Key. No. 358 50 Fin Gasket Set, Key. No. 121 50 Fin Gasket Set, Key. No. 121 50 Fin Gasket Set, Key. No. 121 51 Fin Gasket Set, Key. No. 1095 51 Included in Carburetor Overhaul Kit, Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Included in Carburetor Overhaul Kit. Key. No. 1095 51 Inch = 25.4 mm 51 Inch = 25.4 mm   |            |             |                                     |            |             |                                       |
| ment Engine-art not available) 50 690193 Manifold-Intake 51 692137 •؇+ Gasket-Intake 52 69137 •؇+ Gasket-Intake 53 690227 Stud (Carburetor) 54 691148 Screw (Intake Manifold) 55 691384 Screen-Rotating 56 697384 Screen-Rotating 57 697384 Screw (Rotating Screen) 58 691030 Screw (Flywheel) 59 691030 Screw (Flywheel) 50 691251 Nut (Governor Control Lever) 51 693682 Washer (Flywheel) 52 691030 Screw (Flywheel Guard) 53 690602 Ø Bushing-Throttle Shaft 523 697086 Dipstick 54 691032 Scael-Dipstick Tube 55 691636 Screw (Throttle Valve) 56 691636 Screw (Throttle Valve) 57 690525 Ø Pin-Float Hinge 58 495800 Kit-Idle Speed 59 690525 Ø Valve-Float Needle 50 690577 Ø Seat-Inlet 51 690464 Valve-Choke (Manual Choke) 52 697492 Jet-Main (Standard) 53 697492 Jet-Main (High Altitude) 54 697492 Jet-Main (High Altitude) 55 697190 Carburetor Overhaul 56 69750 Valve-Throttle 57 695005 Plug-Welch 58 69775 Valve-Throttle 59 69750 Valve-Throttle 50 69750 Valve-Throttle  | -          |             |                                     |            |             |                                       |
| 51 692137 •؇+ Gasket-Intake 53 690227 Stud (Carburetor) 54 691148 Screw (Intake Manifold) 503 691532 Strap-Starter 73 697384 Screen-Rotating 505 691251 Nut (Governor Control Lever) 74 697987 Screw (Rotating Screen) 75 690582 Washer (Flywheel) 78 691003 Screw (Flywheel Guard) 93 690602 Ø Bushing-Throttle Shaft 94 498030 Kit-Idle Mixture 95 691636 Screw (Throttle Valve) 98 495800 Kit-Idle Speed 104 690525 Ø Pin-Float Hinge 105 231855 Ø Valve-Float Needle 106 690577 Ø Seat-Inlet 107 694352 Ø Jet-Main (Standard) 108 690464 Valve-Choke (Choke A Matic) 109 697241 Kit-Carburetor Overhaul 125 697190 Carburetor 130 691750 Valve-Throttle 131 494379 Kit-Throttle Shaft 109 503 691251 Nut (Governor Control Lever) 147 694352 Strap-Starter 150 691532 Strap-Starter 150 691532 Strap-Starter 150 691261 Nut (Governor Control Lever) 1510 693699 Drive-Starter 1526 697184 Uslot-Drive 1527 695005 Plug-Welch 1528 697190 Carburetor Overhaul 1531 494379 Kit-Throttle Shaft   | -          |             |                                     |            | 697122      |                                       |
| 53         690227         Stud (Carburetor)         474         696459         Alternator           54         691148         Screw (Intake Manifold)         503         691532         Strap-Starter           73         697384         Screen-Rotating         505         691251         Nut (Governor Control Lever)           74         697987         Screw (Rotating Screen)         510         693699         Drive-Starter           75         690582         Washer (Flywheel)         510A         497606         Drive-Starter           78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         • Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         High Speed: 3000-2100         High Speed: 3000-3200           105         231855         Ø Valve-Float Needle         • Included in Engine Gasket Set, Key. No. 358           108         690464         Valve-Choke (Choke A Matic)   | 50         | 690193      | Manifold-Intake                     | 445        | 698083      | Filter-Air Cleaner Cartridge          |
| 54         691148         Screw (Intake Manifold)         503         691532         Strap-Starter           73         697384         Screen-Rotating         505         691251         Nut (Governor Control Lever)           74         697987         Screw (Rotating Screen)         510         693699         Drive-Starter           75         690582         Washer (Flywheel)         510A         497606         Drive-Starter           78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         Kit-Idle Speed         High Speed: 3000-2100           105         231855         Ø Valve-Float Hinge         RPM Settings:         Low Speed: 1900-2100           108         690464         Valve-Choke (Manual Choke)         Included in Engine Gasket Set, Key. No. 358           118         697492         Jet-Main (High Altitude) <t< td=""><td></td><td>692137 •</td><td></td><td>462</td><td></td><td>Washer (Starter Cable)</td></t<>  |            | 692137 •    |                                     | 462        |             | Washer (Starter Cable)                |
| 73         697384         Screen-Rotating         505         691251         Nut (Governor Control Lever)           74         697987         Screw (Rotating Screen)         510         693699         Drive-Starter           75         690582         Washer (Flywheel)         510A         497606         Drive-Starter           78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         • Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         Tube-Dipstick           104         690525         Pin-Float Hinge         RPM Settings:         Low Speed: 1900-2100           105         231855         Ø Valve-Float Needle         High Speed: 3000-3200           106         690577         Ø Seat-Inlet         Valve-Choke (Manual Choke)         • Included in Engine Gasket Set, Key. No. 358           108         692344         Valve-Choke (Choke A Matic)         Ø Included in Carburetor Overhaul Kit, Key.   |            |             |                                     |            |             |                                       |
| 74         697987         Screw (Rotating Screen)         510         693699         Drive-Starter           75         690582         Washer (Flywheel)         510A         497606         Drive-Starter           78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         • Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         Tube-Dipstick           104         690525         Ø Pin-Float Hinge         RPM Settings:         Low Speed: 1900-2100           105         231855         Ø Valve-Float Needle         High Speed: 3000-3200           106         690577         Ø Seat-Inlet         * Included in Engine Gasket Set, Key. No. 358           117         694352         Ø Jet-Main (Standard)         † Included in Carburetor Overhaul Kit, Key. No. 121           118         697492         Jet-Main (High Altitude)         † Included in Valve Gasket Set, Key. No. 1095           127         6  |            |             |                                     |            |             |                                       |
| 75         690582         Washer (Flywheel)         510A         497606         Drive-Starter           78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         • Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         Tube-Dipstick           104         690525         Ø Pin-Float Hinge         RPM Settings:         Low Speed: 1900-2100           105         231855         Ø Valve-Float Needle         High Speed: 3000-3200           106         690577         Ø Seat-Inlet         Included in Engine Gasket Set, Key. No. 358           108         692344         Valve-Choke (Choke A Matic)         Ø Included in Carburetor Overhaul Kit, Key. No. 121           117         694352         Ø Jet-Main (Standard)         ‡ Included in Carburetor Gasket Set, Key. No. 197           118         697492         Jet-Main (High Altitude)         † Included in Valve Gasket Set, Key. No. 1095           127         695005<  |            |             |                                     |            |             |                                       |
| 78         691003         Screw (Flywheel Guard)         513         692024         Clutch-Drive           93         690602         Ø Bushing-Throttle Shaft         523         697086         Dipstick           94         498030         Kit-Idle Mixture         524         691032         • Seal-Dipstick Tube           95         691636         Screw (Throttle Valve)         525         697184         Tube-Dipstick           98         495800         Kit-Idle Speed         Tube-Dipstick           104         690525         Ø Pin-Float Hinge         RPM Settings:         Low Speed: 1900-2100           105         231855         Ø Valve-Float Needle         High Speed: 3000-3200           106         690577         Ø Seat-Inlet         Included in Engine Gasket Set, Key. No. 358           108A         692344         Valve-Choke (Choke A Matic)         Ø Included in Carburetor Overhaul Kit, Key. No. 121           117         694352         Ø Jet-Main (High Altitude)         ‡ Included in Carburetor Gasket Set, Key. No. 1095           121         697492         Kit-Carburetor Overhaul           125         697190         Carburetor         NOTE: All component dimensions given in U.S. inches           130         691750         Valve-Throttle           131  |            |             |                                     |            |             |                                       |
| 93 690602 Ø Bushing-Throttle Shaft 94 498030 Kit-Idle Mixture 95 691636 Screw (Throttle Valve) 96 495800 Kit-Idle Speed 104 690525 Ø Pin-Float Hinge 105 231855 Ø Valve-Float Needle 106 690577 Ø Seat-Inlet 108 690464 Valve-Choke (Manual Choke) 108 692344 Valve-Choke (Choke A Matic) 117 694352 Ø Jet-Main (Standard) 118 697492 Jet-Main (High Altitude) 125 697190 Carburetor Overhaul 125 697190 Carburetor 130 691750 Valve-Throttle 131 494379 Valve-Throttle Shaft  523 697086 Dipstick 524 691032 • Seal-Dipstick Tube-Dipstick  RPM Settings: Low Speed: 1900-2100 High Speed: 3000-3200  • Included in Engine Gasket Set, Key. No. 358 Included in Carburetor Overhaul Kit, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 1095  NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm  |            |             |                                     |            |             |                                       |
| 94   |            |             |                                     |            |             |                                       |
| 95 691636 Screw (Throttle Valve) 98 495800 Kit-Idle Speed 104 690525 Ø Pin-Float Hinge RPM Settings: Low Speed: 1900-2100 105 231855 Ø Valve-Float Needle 106 690577 Ø Seat-Inlet 107 694352 Ø Jet-Main (Standard) 118 697492 Jet-Main (High Altitude) 121 697241 Kit-Carburetor Overhaul 125 697190 Carburetor 127 695005 Plug-Welch 130 691750 Valve-Throttle 131 494379 Kit-Throttle Shaft  525 697184 Tube-Dipstick 126 697184 Tube-Dipstick 120 Float Hinge RPM Settings: Low Speed: 1900-2100 High Speed: 3000-3200  • Included in Engine Gasket Set, Key. No. 358 Ø Included in Carburetor Overhaul Kit, Key. No. 121 † Included in Carburetor Gasket Set, Key. No. 977 † Included in Valve Gasket Set, Key. No. 1095  NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm   |            |             |                                     |            |             |                                       |
| 98   |            |             |                                     |            |             |                                       |
| 105   231855   Ø Valve-Float Needle   High Speed: 3000-3200     106   690577   Ø Seat-Inlet   Valve-Choke (Manual Choke)   Included in Engine Gasket Set, Key. No. 358     108A   692344   Valve-Choke (Choke A Matic)   Ø Included in Carburetor Overhaul Kit, Key. No. 121     117   694352   Ø Jet-Main (Standard)   ‡ Included in Carburetor Gasket Set, Key. No. 977     118   697492   Jet-Main (High Altitude)   † Included in Valve Gasket Set, Key. No. 1095     121   697241   Kit-Carburetor Overhaul     125   697190   Carburetor   Overhaul     127   695005   Plug-Welch   Plug-Welch   Valve-Throttle     130   691750   Valve-Throttle     131   494379   Kit-Throttle Shaft   Kit-Throttle Shaft   More   Speed: 3000-3200   | 98         | 495800      | Kit-Idle Speed                      |            |             |                                       |
| 106         690577         Ø Seat-Inlet           108         690464         Valve-Choke (Manual Choke)         • Included in Engine Gasket Set, Key. No. 358           108A         692344         Valve-Choke (Choke A Matic)         Ø Included in Carburetor Overhaul Kit, Key. No. 121           117         694352         Ø Jet-Main (Standard)         ‡ Included in Carburetor Gasket Set, Key. No. 977           118         697492         Jet-Main (High Altitude)         † Included in Valve Gasket Set, Key. No. 1095           121         697190         Carburetor Overhaul           125         695005         Plug-Welch           130         691750         Valve-Throttle           131         494379         Kit-Throttle Shaft    **  Included in Engine Gasket Set, Key. No. 121  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Valve Gasket Set, Key. No. 1095  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Carburetor Overhaul Kit, Key. No. 121  ** Included in Carburetor Overhaul Kit, Key. No. 1095  **  |            |             |                                     | RPM S      | Settings:   |                                       |
| 108 690464 Valve-Choke (Manual Choke) 108A 692344 Valve-Choke (Choke A Matic) 117 694352 Ø Jet-Main (Standard) 118 697492 Jet-Main (High Altitude) 121 697241 Kit-Carburetor Overhaul 125 697190 Carburetor 127 695005 Plug-Welch 130 691750 Valve-Throttle 131 494379 Kit-Throttle Shaft  • Included in Engine Gasket Set, Key. No. 358 Included in Carburetor Overhaul Find Included in Carburetor Overhaul Find Included in Valve Gasket Set, Key. No. 1095 1 Included in Engine Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Engine Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Engine Gasket Set, Key. No. 121 1 Included in Carburetor Overhaul Find Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Engine Gasket Set, Key. No. 121 1 Included in Carburetor Overhaul Find Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Carburetor Overhaul Find Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 1095 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 121 1 Included in Carburetor Gasket Set, Key. No. 1 |            |             |                                     |            |             | High Speed: 3000-3200                 |
| 108A 692344 Valve-Choke (Choke A Matic) Ø Included in Carburetor Overhaul Kit, Key. No. 121 117 694352 Ø Jet-Main (Standard) ‡ Included in Carburetor Gasket Set, Key. No. 977 118 697492 Jet-Main (High Altitude) + Included in Valve Gasket Set, Key. No. 1095 121 697241 Kit-Carburetor Overhaul 125 697190 Carburetor Overhaul 127 695005 Plug-Welch 130 691750 Valve-Throttle 131 494379 Kit-Throttle Shaft   |            |             |                                     |            |             | . E . O . I . O . I . N. OFO          |
| 117       694352       Ø Jet-Main (Standard)       ‡ Included in Carburetor Gasket Set, Key. No. 977         118       697492       Jet-Main (High Altitude)       † Included in Valve Gasket Set, Key. No. 1095         121       697241       Kit-Carburetor Overhaul         125       697190       Carburetor       NOTE: All component dimensions given in U.S. inches         127       695005       Plug-Welch       1 inch = 25.4 mm         130       691750       Valve-Throttle         131       494379       Kit-Throttle Shaft   |            |             |                                     |            |             | , ,                                   |
| 118       697492       Jet-Main (High Altitude)       +       Included in Valve Gasket Set, Key. No. 1095         121       697241       Kit-Carburetor Overhaul       NOTE: All component dimensions given in U.S. inches         127       695005       Plug-Welch       1 inch = 25.4 mm         130       691750       Valve-Throttle         131       494379       Kit-Throttle Shaft  |            |             | ,                                   |            |             |                                       |
| 121       697241       Kit-Carburetor Overhaul         125       697190       Carburetor       NOTE: All component dimensions given in U.S. inches         127       695005       Plug-Welch       1 inch = 25.4 mm         130       691750       Valve-Throttle         131       494379       Kit-Throttle Shaft  |            |             |                                     |            |             |                                       |
| 125       697190       Carburetor       NOTE: All component dimensions given in U.S. inches         127       695005       Plug-Welch       1 inch = 25.4 mm         130       691750       Valve-Throttle         131       494379       Kit-Throttle Shaft   |            |             |                                     | т          | incidued    | iii vaive Gaskei Gel, Ney. NO. 1033   |
| 127 695005 Plug-Welch 1 inch = 25.4 mm 130 691750 Valve-Throttle 131 494379 Kit-Throttle Shaft   |            |             |                                     | NOTE:      | All comp    | onent dimensions given in U.S. inches |
| 130 691750 Valve-Throttle<br>131 494379 Kit-Throttle Shaft   |            |             |                                     |            |             |                                       |
| 131 494379 Kit-Throttle Shaft  | 130        |             | •                                   |            |             |                                       |
| 133 494381 Float-Carburetor  | 131        |             |                                     |            |             |                                       |
|  | 133        | 494381      | Float-Carburetor                    |            |             |                                       |

| KEY<br>NO. | PART<br>NO.      | DESCRIPTION                                     | KEY<br>NO.   | PART<br>NO.      | DESCRIPTION                                      |
|------------|------------------|---|--------------|------------------|--|
| 544        | 692034           | Starter-Armature                                | 968          | 698403           | Cover-Air Cleaner                                |
| 544A       | 390837           | Starter-Armature                                | 975          | 495933           | Bowl-Float                                       |
| 552        | 697144           | Bushing-Governor Crank                          | 977          | 690192           | Gasket Set-Carburetor                            |
| 562        | 691119           | Bolt (Governor Control Lever)                   | 987          | 691326           | Ø Seal-Throttle Shaft                            |
| 579        | 691029           | Nut (Starter Cable)                             | 1005         | 697853           | Fan-Flywheel                                     |
| 584        | 697112           | Cover-Breather Passage                          | 1019         | 697143           | Kit-Label  |
| 601        | 95162            | Clamp-Hose                                      | 1022         | 272475           | •+ Gasket-Rocker Cover                           |
| 614        | 691620           | Pin-Cotter                                      | 1023         | 692492           | Cover-Rocker Arm                                 |
| 616        | 692012           | Crank-Governor                                  | 1026         | 692003           | Rod-Push (Intake)                                |
| 617        | 692138           | Ø • Seal-O Ring (Intake Manifold)               |              | 692011           | Rod-Push (Exhaust)                               |
| 634        | 690801           | Ø Spring/Seal Assembly (Manual Choke)           | 1029         | 691751           | Arm-Rocker                                       |
| 634A       | 690802           | Ø Spring/Seal Assembly (Choke A Matic)          | 1034         | 690822           | Guide-Push Rod                                   |
| 635        | 691909           | Boot-Spark Plug                                 | 1036         | 695700           | Label-Emission                                   |
| 643        | 698401           | Retainer-Air Filter                             | 1040         | 698368           | Plate-Trim                                       |
| 654        | 690958           | Nut (Carburetor)                                | 1044         | 691658           | Screw (Flywheel)                                 |
| 691        | 692407           | Seal-Governor Shaft     Sergy (Drive Cop)       | 1051         | 691265           | Ring-Retaining                                   |
| 697<br>718 | 690372           | Screw (Drive Cap)                               | 1058<br>1070 | 275038<br>690372 | Owner's Manual                                   |
| 718<br>729 | 690959<br>691224 | Pin-Locating<br>Clip-Wire                       | 1070         | 691626           | Screw (Flywheel Fan)<br>Nut (Starter Terminal)   |
| 741        | 697128           | Gear-Timing                                     |              | 690958           | Nut (Starter Terminal)                           |
| 741<br>757 | 697607           | Link-Counterweight                              | 1090         | 691293           | Retainer-Brush                                   |
| 757<br>758 | 697134           | Counterweight                                   | 1091         | 691333           | Cap-Limiter                                      |
| 759        | 697392           | Pin-Counterweight                               | 1095         | 691581           | Gasket Set-Valve                                 |
| 783        | 693713           | Gear-Pinion                                     | 1119         | 691183           | Screw (Alternator)                               |
| 783A       | 693059           | Gear-Pinion                                     | 1263         | 697124           | Reed-Breather                                    |
| 789        | 698329           | Harness-Wiring                                  | 1264         | 697104           | Screw (Breather Reed)                            |
| 797        | 693167           | Nut (Brush Retainer)                            | 1265         | 697125           | Support-Blower Housing                           |
| 801        | 691283           | Cap-Drive                                       | 1266         | 691917           | <ul> <li>Ø Seal-O Ring (Intake Elbow)</li> </ul> |
| 801A       | 394856           | Cap-Drive                                       | 1266A        | 697123           | Ø Seal-O Ring (Intake Elbow)                     |
| 802        | 691286           | Cap-End   | 1267         | 697575           | Latch-Blower Housing                             |
| 802A       | 395537           | Cap-End   | 1270         | 697156           | Plug-AVS Counterweight                           |
| 803        | 693757           | Housing-Starter                                 | 1279         | 690960           | Screw (Blower Housing Support)                   |
| 803A       | 398159           | Housing-Starter                                 |              |                  |  |
| 830        | 691095           | Stud (Rocker Arm)                               | RPM S        | Settings:        | Low Speed: 1900-2100                             |
| 842        | 691031           | <ul> <li>Seal-O Ring (Dipstick Tube)</li> </ul> |              |                  | High Speed: 3000-3200                            |
| 847        | 697611           | Dipstick/Tube Assembly                          |              |                  |  |
| 851        | 692424           | Terminal-Spark Plug                             | •            |                  | in Engine Gasket Set, Key. No. 358               |
| 868        | 690968           | •+ Seal-Valve                                   | Ø            |                  | in Carburetor Overhaul Kit, Key. No. 121         |
| 876        | 495877           | Kit-Pinion Spring                               | ‡            |                  | in Carburetor Gasket Set, Key. No. 977           |
| 877        | 393456           | Wire-Connector/Alternator                       | +            | included         | in Valve Gasket Set, Key. No. 1095               |
| 896        | 691641           | Pin-Drive Retainer                              | NOTE         | A II             | and the same land of the HO !                    |
| 914        | 690960           | Screw (Rocker Cover)                            | NOTE:        |                  | onent dimensions given in U.S. inches            |
| 947        | 694393           | Solenoid-Fuel                                   |              | i inch = 1       | 25.4 mm  |
| 950        | 691657           | Screw (Float Bowl)                              |              |                  |  |
| 967        | 697015           | Filter-Pre Cleaner                              |              |                  |  |

# **SERVICE NOTES**

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



3. Sight across the fold in the direction of hill slope you want to measure. 4. Compare the angle of the fold with the slope of the hill.

2. Hold page before you so that its left edge is vertically parallel to a tree

trunk or other upright structure.

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