

MODEL NO. 944.601270

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



# **CRAFTZMAN®**

# 24.0 HP\* ELECTRIC START 46" MOWER AUTOMATIC TRANSMISSION LAWN TRACTOR

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

Gasoline containing up to 10% ethanol (E10) is acceptable for use in this machine. The use of any gasoline exceeding 10% ethanol (E10) will void the product warranty.

442261 Rev 2

\*As rated by the engine manufacturer

## **SAFETY RULES**

**Safe Operation Practices for Ride-On Mowers** 



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



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



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



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



#### WARNING A



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

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at
- 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 blades.
- Be sure the area is clear of bystanders before operating. 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
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge chute, or other safety devices in place and working.

- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge chute.
- Operate machine only in daylight or good artificial liaht.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above. are involved in a large percentage of riding mowerrelated injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- 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.

#### II. SLOPE OPERATION

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

- Mow up and down slopes, not across.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Do not mow on wet grass. Tires may lose traction. Always keep the machine in gear when going down slopes. Do not shift to neutral and coast downhill.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.
- Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine. Do no use on steep slopes.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not mow near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel is over the edge or if the edge caves in.

# A

## **SAFETY RULES**

#### Safe Operation Practices for Ride-On Mowers



#### 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 in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Never carry children, even with the blades shut off. They
  may fall off and be seriously injured or interfere with
  safe machine operation. Children who have been given
  rides in the past may suddenly appear in the mowing
  area for another ride and be run over or backed over
  by the machine.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

#### IV. TOWING

- Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
- Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
- Never allow children or others in or on towed equipment.
- On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
- Travel slowly and allow extra distance to stop.

#### V. SERVICE

#### SAFE HANDLING OF GASOLINE

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- · Use only approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never fuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with plastic liner. Always place containers on the ground away from your vehicle when filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.
   Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.

#### **GENERAL SERVICE**

- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working 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 and remove any fuelsoaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge chute frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.











- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children, even with the blades shut off. They
  may fall off and be seriously injured or interfere with
  safe machine operation. Children who have been given
  rides in the past may suddenly appear in the mowing
  area for another ride and be run over or backed over
  by the machine.
- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

#### **PRODUCT SPECIFICATIONS**

Gasoline Capacity and type:	3.0 Gallons Unleaded Regular		
Oil Type (API-SG-SL):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)		
Oil Capacity:	W/ Filter: 64 oz. W/O Filter: 60 oz.		
Spark Plug:	Champion QC12YC (Gap: .040")		
Ground Speed (MPH):	Forward: 0 - 5.5 Reverse: 0 - 2.4		
Charging System:	3 AMPS Battery 5 AMPS Headlights		
Battery:	AMP/HR: 28 MIN. CCA: 230 Case Size: U1R		
Blade Bolt Torque:	45-55 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 Sears or other 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".

#### **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 manual.

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

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

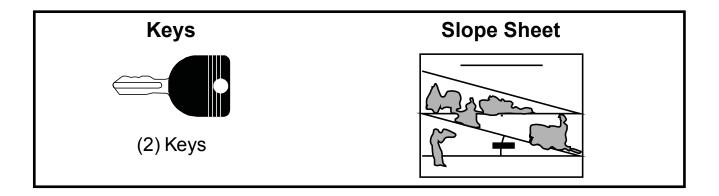
A spark arrester for the muffler is available through your nearest Sears or other authorized service center/department.

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## **UNASSEMBLED PARTS**



## **ASSEMBLY**

Your new tractor has been assembled at the factory with the exception of those parts left unassembled for shipping purposes.

#### TOOLS REQUIRED FOR ASSEMBLY

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

(1) 1/2" wrench Tire pressure gauge

(2) 7/16" wrenches Utility knife

Pliers

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

## TO REMOVE TRACTOR FROM CARTON

## UNPACK CARTON

- Remove all accessible loose parts and parts 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

#### TO CHECK BATTERY (See Fig. 1)

· Lift hood to raised position.

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

 For battery and battery cable installation see "RE-PLACING BATTERY" in the "Service and Adjustments" section in this manual.

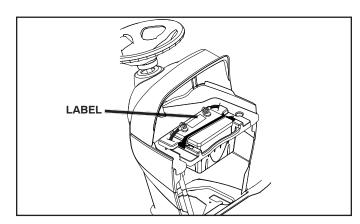


Fig. 1

#### ADJUST SEAT (See Fig. 2)

- Sit in seat.
- Lift up adjustment lever (A) and slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Release lever to lock seat in position.

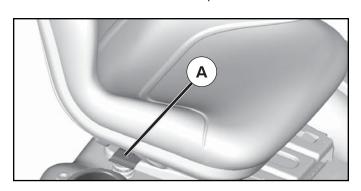


Fig. 2

## **ASSEMBLY**

**NOTE:** You may now roll your tractor off the skid. Follow the instructions below to remove the tractor from the skid.

**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.

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

- · Raise attachment lift lever to its highest position.
- · Release parking brake by depressing brake pedal.
- Place freewheel control in disengaged position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- · Roll tractor forward off skid.

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 on tires.

#### **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 operating properly. See "TO CHECK BRAKE" in the Service and Adjustments section of this manual.

## **√** CHECKLIST

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

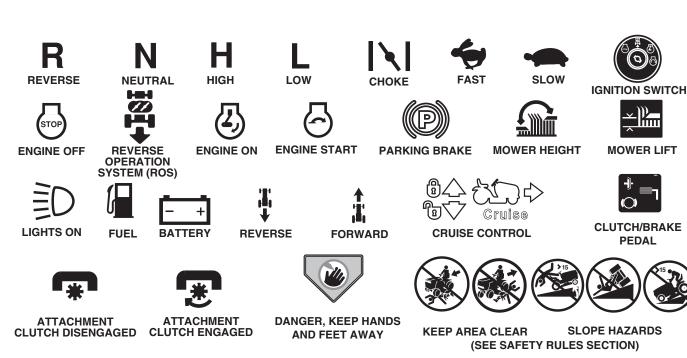
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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.
- Be sure Operator Presence System and Reverse Operation System (ROS) are working properly (See the Operation and Maintenance sections in this manual).
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGETRANSMISSION" in the Operation section of this manual).

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





**FREE WHEEL** (Automatic Models only)



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



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

**PEDAL** 



**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.

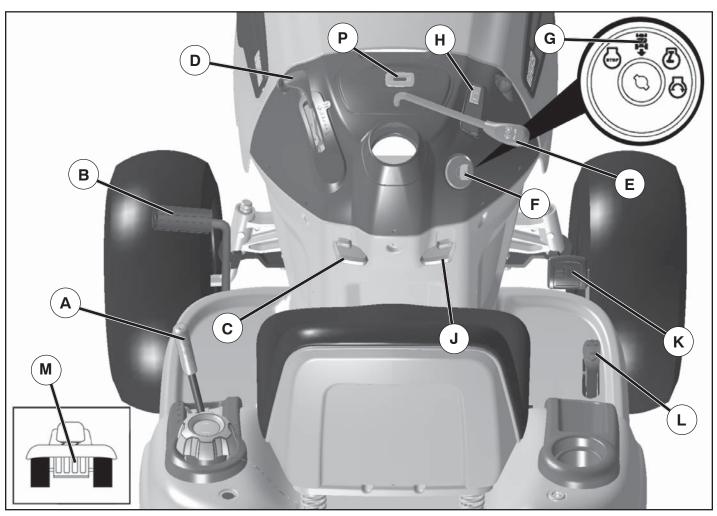


Fig. 3

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

- (A) ATTACHMENT LIFT LEVER Used to raise and lower the mower or other attachments mounted to your tractor.
- **(B) BRAKE PEDAL** Used for braking the tractor and starting the engine.
- **(C) PARKING BRAKE** Locks clutch/brake pedal into the brake position.
- **(D) THROTTLE/CHOKE CONTROL** Used for starting and controlling engine speed.
- **(E) ATTACHMENT CLUTCH LEVER** Used to engage the mower blades, or other attachments mounted to your tractor.
- **(F) IGNITION SWITCH** Used for starting and stopping the engine.
- (G) REVERSE OPERATION SYSTEM (ROS) "ON" POSITION Allows operation of mower or other powered attachment while in reverse.

- (H) LIGHT SWITCH Turns the headlights on and off.
- (J) CRUISE CONTROL LEVER Used to set forward movement of tractor at desired speed without holding the forward drive pedal.
- **(K) FORWARD DRIVE PEDAL** Used for forward movement of tractor.
- (L) REVERSE DRIVE PEDAL Used for reverse movement of tractor.
- **(M) FREEWHEEL CONTROL** Disengages transmission for pushing or slowly towing the tractor with the engine off.
- **(P) SERVICE REMINDER/HOUR METER** Indicates when service is required for the engine and mower.



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 standard safety glasses or a wide vision safety mask worn over spectacles.

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

#### TO SET PARKING BRAKE (See Fig. 4)

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 brake pedal (B) all the way down and hold.
- Pull parking brake lever (C) up and hold, release pressure from brake pedal (B), then release parking brake lever. Pedal should remain in brake position. Make sure parking brake will hold tractor secure.

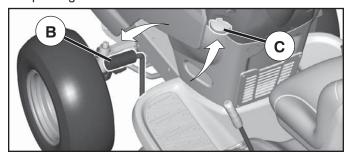


Fig. 4

#### STOPPING (See Fig. 5)

**MOWER BLADES -**

 To stop mower blades, place attachment clutch control in the "DISENGAGED" position ().

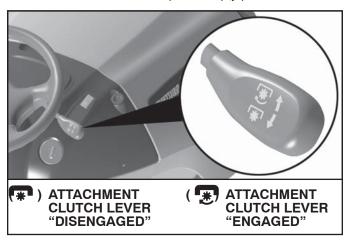


Fig. 5

#### GROUND DRIVE -

 To stop ground drive, depress brake pedal into full "BRAKE" position.

**IMPORTANT**: FORWARD AND REVERSE DRIVE PEDALS RETURN TO NEUTRAL POSITION WHEN NOT DEPRESSED.

#### **ENGINE** -

 Move throttle control (D) between half and full speed (fast) position.

**NOTE:** Failure to move throttle control between half and full speed (fast) position, before stopping may cause engine to "backfire".

- Turn ignition key (F) to "STOP" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use the choke to stop the engine.

**IMPORTANT:** LEAVING THE IGNITION SWITCH IN ANY POSITION OTHER THAN "STOP" 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, and set parking brake before leaving the operator's position.

#### TO USE THROTTLE CONTROL (D) (See Fig. 6)

Always operate engine at full speed (fast).

- Operating engine at less than full speed (fast) reduces engines operating efficiency.
- Full speed (fast) offers the best bagging and mower performance.

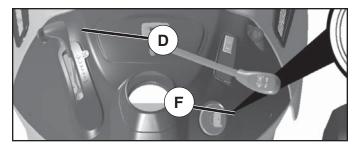


Fig. 6

# TO MOVE FORWARD AND BACKWARD (See Fig. 7)

The direction and speed of movement is controlled by the forward and reverse drive pedals.

- · Start tractor and release parking brake.
- Slowly depress forward (K) or reverse (L) drive pedal to begin movement. Ground speed increases the further down the pedal is depressed.

#### TO USE CRUISE CONTROL (J) (See Fig. 7)

The cruise control feature can be used for forward travel only.

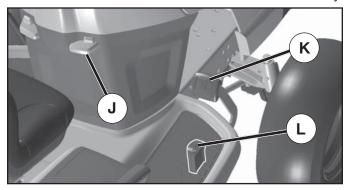


Fig. 7

#### SYSTEM CHARACTERISTICS

The cruise control should only be used while mowing or transporting on relatively smooth, straight surfaces. Other conditions such as trimming at slow speeds may cause the cruise control to disengage. Do not use the cruise control on slopes, rough terrian or while trimming or turning.

 With forward drive pedal depressed to desired speed, pull cruise control lever (J) up and hold while lifting your foot off the pedal, then release the lever.

To disengage the cruise control, depress the brake pedal or tap on forward drive pedal.

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

The position of the attachment lift lever (A) determines the cutting height.

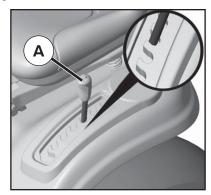


Fig. 8

Put attachment lift lever in desired cutting height slot.

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

#### TO ADJUST GAUGE WHEELS (See Fig. 9)

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

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

- Adjust mower to desired cutting height (See "TO ADJUST MOWER CUTTING HEIGHT" in this section of manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole. Tighten securely.
- Repeat for all, installing gauge wheel in same adjustment hole.

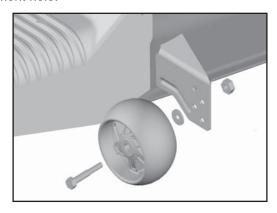


Fig. 9

#### TO OPERATE MOWER

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine. You must remain fully and centrally positioned in the seat to prevent the engine from hesitating or cutting off when operating your equipment on rough, rolling terrain or hills.

- Select desired height of cut with attachment lift lever.
- 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 (S) in place (See Fig. 10).

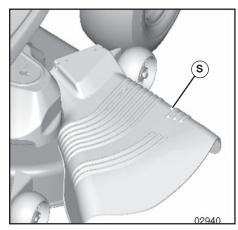


Fig. 10

# REVERSE OPERATION SYSTEM (ROS) (See Fig. 11)

Your tractor is equipped with a Reverse Operation System (ROS). Any attempt by the operator to travel in the reverse direction with the attachment clutch engaged will shut off the engine unless ignition key is placed in the ROS "ON" position.

AWARNING: Backing up with the attachment clutch engaged while mowing is strongly discouraged. Turning the ROS "ON", to allow reverse operation with the attachment clutch engaged, should only be done when the operator decides it is necessary to reposition the machine with the attachment engaged. Do not mow in reverse unless absolutely necessary.

USING THE REVERSE OPERATION SYSTEM -

Only use if you are certain no children or other bystanders will enter the mowing area.

- Depress brake pedal all the way down.
- With engine running, turn ignition key counterclockwise to ROS "ON" position.

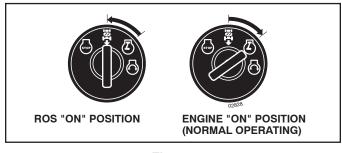


Fig. 11

- Look down and behind before and while backing.
- Slowly depress reverse drive pedal to start movement.
- When use of the ROS is no longer needed, turn the ignition key clockwise to engine "ON" position.

#### TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If stopping is absolutely necessary, push brake pedal quickly to brake position and engage parking brake.
- To restart movement, slowly release parking brake and brake pedal.
- Slowly depress appropriate drive pedal to slowest setting.
- Make all turns slowly.

#### TO TRANSPORT (See Figs. 3 and 12)

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

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

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

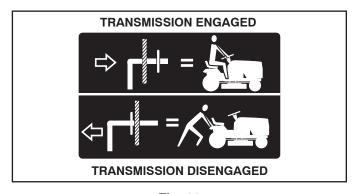


Fig. 12

#### TOWING CARTS AND OTHER ATTACHMENTS

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

#### SERVICE REMINDER/HOUR METER

Service reminder shows the total number of hours the engine has run and flashes to indicate that the engine or mower needs servicing. When service is required, the service reminder will flash for two hours. To service engine and mower, see the Maintenance section of this manual.

**NOTE**: Service reminder runs when the ignition key is in any position but "STOP". For accurate reading, be sure key remains in the "STOP" position when engine is not running.

#### 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 BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP ENSURE 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. 3)

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

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress brake pedal and set parking brake.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to choke 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
 position and retry.

#### WARM WEATHER STARTING (50° F/10° C 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/10° C and below)

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

#### AUTOMATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - Release the parking brake and let the brake slowly return to operating position.
  - Allow one minute for transmission to warm up. This
    can be done during the engine warm up period.
- The attachments can also be used during the engine warm-up period after the transmission has been warmed up.

**NOTE:** If at a high altitude (above 3000 feet) or in cold temperatures (below 32° F/0° C) the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

#### PURGE TRANSMISSION



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

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

**IMPORTANT:** SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

- 1. Place tractor safely on a level surface that is clear and open with engine off and parking brake set.
- Disengage transmission by placing freewheel control in disengaged position (See "TO TRANSPORT" in this section of manual).
- 3. Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. Disengage parking brake



CAUTION: At any time, during step 4, there may be movement of the drive wheels.

- Depress forward drive pedal to full forward position, hold for five (5) seconds and release pedal. Depress reverse drive pedal to full reverse position, hold for five (5) seconds and release pedal. Repeat this procedure three (3) times.
- Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in engaged position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. Disengage parking brake.
- Drive tractor forward for approximately five feet then backwards for five feet. Repeat this driving procedure three times.

Your transmission is now purged and now ready for normal operation.

#### **MOWING TIPS**

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 13).

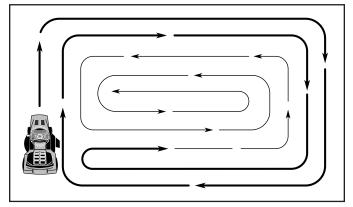


Fig. 13

- 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.

	MAINTENANCE SCHEDULE	BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE
	Check Brake Operation	<b>V</b>	<b>V</b>					
lτ	Check Tire Pressure	<b>/</b>	<b>/</b>					
ľĸ	Check Operator Presence & ROS Systems	<b>/</b>						
ΙÄ	Check for Loose Fasteners	<b>V</b>				<b>/</b>		<b>/</b>
C	Check/Replace Mower Blades			<b>√</b> 3				
T	Lubrication Chart			<b>/</b>				<b>/</b>
0	Check Battery Level			<b>1</b> 4				
R	Clean Battery and Terminals			<b>V</b>				<b>/</b>
	Clean Debris Off Steering Plate			5				
	Check Transaxle Cooling			<b>/</b>				
	Check Mower Levelness				<b>/</b>			
	Check V-Belts					<b>/</b>		
	Check Engine Oil Level	<b>/</b>	<b>/</b>					
	Change Engine Oil (with oil filter)				1,2			
Ŀ	Change Engine Oil (without oil filter)			1,2				<b>/</b>
E	Clean Air Filter			<b>1</b> 2				
G	Clean Air Screen			<b>√</b> 2				
Įĭ	Inspect Muffler/Spark Arrester				<b>/</b>			
N	Replace Oil Filter (If equipped)					1,2		
ĮΕ	Clean Engine Cooling Fins					2		
	Replace Spark Plug					/	<b>/</b>	
	Replace Air Filter Paper Cartridge					<b>1</b> 2		
	Replace Fuel Filter						<b>V</b>	

<sup>1 -</sup> Change more often when operating under a heavy load or in high ambient temperatures.

#### GENERAL RECOMMENDATIONS

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

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

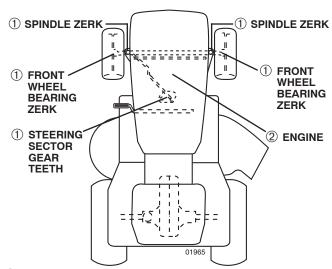
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

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

#### **BEFORE EACH USE**

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

#### **LUBRICATION CHART**



- General Purpose Grease
- ② 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 SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

<sup>2 -</sup> Service more often when operating in dirty or dusty conditions.

<sup>3 -</sup> Replace blades more often when mowing in sandy soil.4 - Not required if equipped with maintenance-free battery.

<sup>5 -</sup> See Cleaning in Maintenance Section.

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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. (See "TO CHECK BRAKE" in the Service and Adjustments section of this manual).

#### **TIRES**

- Maintain proper air pressure in all tires (See the sides of tires for proper PSI).
- 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 AND REVERSE OPERATION SYSTEM (ROS) (See Fig. 14)

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

 The engine should not start unless the brake pedal is fully depressed, and the attachment clutch control is in the disengaged position.

#### CHECK OPERATOR PRESENCE SYSTEM

- 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.

#### CHECK REVERSE OPERATION (ROS) SYSTEM

- When the engine is running with the ignition switch in the engine "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should shut off the engine.
- When the engine is running with the ignition switch in the ROS "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should NOT shut off the engine.

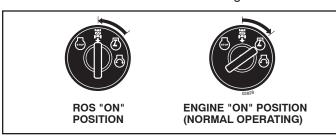


Fig. 14

#### **BLADE CARE**

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



CAUTION: Use only a replacement blade approved by the manufacturer of your tractor. Using a blade not approved by the manufacturer of your tractor is hazardous, could damage your tractor and void your warranty.

#### **BLADE REMOVAL (See Fig. 15)**

 Raise mower to highest position to allow access to blades.

**NOTE:** Protect your hands with gloves and/or wrap blade with heavy cloth.

- Remove blade bolt by turning counterclockwise.
- Install new or resharpened blade with stamped "THIS SIDE UP" facing deck and mandrel assembly.

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

• Install and tighten blade bolt securely (45-55 Ft. Lbs.). **IMPORTANT**: SPECIAL BLADE BOLT HEAT TREATED.

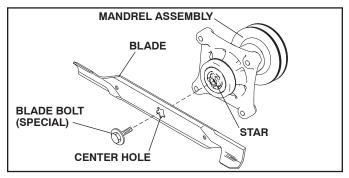


Fig. 15

#### **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 "REPLACING BATTERY" in the SERVICE AND ADJUSTMENTS section of this manual).

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot. To prevent possible damage to seals, do not use high pressure water or steam to clean transaxle.

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

#### TRANSAXLE PUMP FLUID

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

#### **ENGINE**

#### LUBRICATION

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

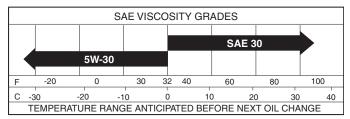


Fig. 16

**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, they will result in increased oil consumption when used above 32°F/0°C. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

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

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

#### TO CHANGE ENGINE OIL (See Figs. 16 and 17)

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

- Be sure tractor is on level surface.
- · Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.

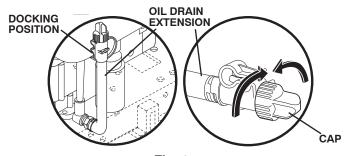


Fig. 17

- Slide oil drain extension from the docking position on the engine blower housing and extend outward from engine.
- To open, twist cap counter-clockwise
- After oil is drained completely, replace cap and twist clockwise until it stops.
- Re-attach oil drain extension to engine blower housing.
- 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. For accurate reading, tighten dipstick cap securely onto the tube before removing dipstick. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

#### **ENGINE OIL FILTER**

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

#### **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.

#### AIR FILTER

Your engine will not run properly using a dirty air filter. Service air cleaner more often under dusty conditions.

#### **ENGINE COOLING SYSTEM**

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

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

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

#### **MUFFLER**

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

#### **SPARK PLUGS**

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

#### IN-LINE FUEL FILTER (See Fig. 18)

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.

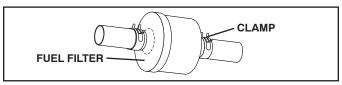


Fig. 18

#### **CLEANING**

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Clean debris from steering plate. Debris can restrict clutch/brake pedal shaft movement, causing belt slip and loss of drive.



CAUTION: Avoid all pinch points and movable parts (See Fig. 19)

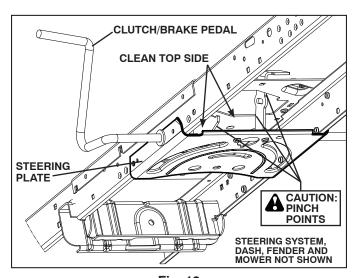


Fig. 19

- 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.

#### **DECK WASHOUT PORT (See Fig. 20)**

Your tractor's deck is equipped with a washout port on its surface as part of its deck wash system. It should be utilized after each use.

1. Drive the tractor to a level, clear spot on your lawn, near enough to a water spigot for your garden hose to reach.

**IMPORTANT**: Make certain the tractor's discharge chute is directed AWAY from your house, garage, parked cars, etc. Remove bagger chute or mulch cover if attached.

- Make sure the attachment clutch control is in the "DISENGAGED" position, set the parking brake, and stop the engine.
- Thread the nozzle adapter (packaged with your tractor's Operator's Manual) onto the end of your garden hose.
- 4. Pull back the lock collar of the nozzle adapter and push the adapter onto the deck washout port at the left end of the mower deck. Release the lock collar to lock the adapter on the nozzle.

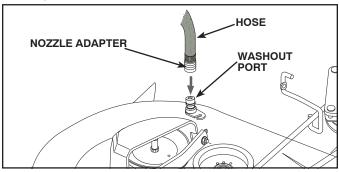


Fig. 20

**IMPORTANT**: Tug hose ensuring connection is secure.

- 5. Turn the water on.
- 6. While sitting in the operator's position on the tractor, re-start the engine and place the throttle lever in the Fast " position.

**IMPORTANT**: Recheck the area making certain the area is clear.

- Move the tractor's attachment clutch control to the "ENGAGED" position. Remain in the operator's position with the cutting deck engaged until the deck is cleaned.
- Move the tractor's attachment clutch control to the "DISENGAGED" position. Turn the ignition key to the STOP position to turn the tractor's engine off. Turn the water off.
- Pull back the lock collar of the nozzle adapter to disconnect the adapter from the nozzle washout port.
- 10. Move the tractor to a dry area, preferably a concrete or paved area. Place the attachment clutch control in the "ENGAGED" position to remove excess water and to help dry before putting the tractor away.



WARNING: A broken or missing washout fitting could expose you or others to thrown objects from contact with the blade.

- Replace broken or missing washout fitting immediately, prior to using mower again.
- Plug any holes in mower with bolts and locknuts.



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

- · Depress brake pedal fully and set parking brake.
- 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.

#### TO REMOVE MOWER (See Fig. 21)

- Place attachment clutch in "DISENGAGED" position.
- Lower attachment lift lever to its lowest position.
- Roll belt off engine pulley (M) and belt keepers (G).
- Remove retainer spring (K), slide collar (L) off and push housing guide (P) out of bracket.
- Remove clutch cable spring (Q) from idler arm (R).
- Disconnect front link (E) from mower remove retainer spring and washer.
- Go to either side of mower and disconnect mower suspension arm (A) from chassis pin (B) and rear lift link (C) from rear mower bracket (D) - remove retainer springs and washers.



CAUTION: AFTER REAR LIFT LINKS ARE DISCONNECTED, THE ATTACHMENT LIFT LEVER WILL BE SPRING LOADED. HAVE A TIGHT GRIP ON LIFT LEVER WHEN CHANGING POSITION OF THE LEVER.

Slide mower out from under right side of tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINK (E) AND REAR LIFT LINKS (C) FROM TRACTOR AND HOOK THE CLUTCH SPRING (Q) INTO THE CABLE GUIDE ON FRONT EDGE OF LOWER DASH.

#### TO INSTALL MOWER (See Fig. 21-26)

Be sure tractor is on level surface and engage parking brake.

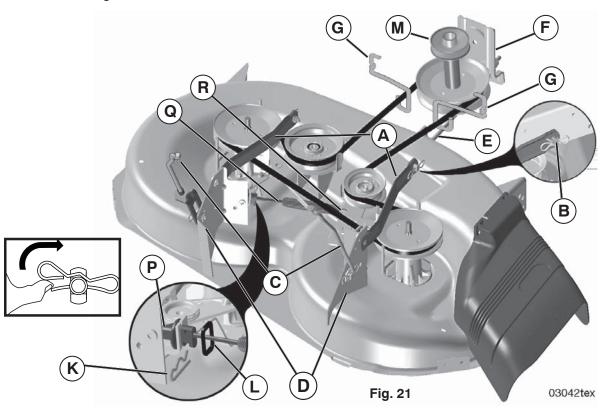
Lower attachment lift lever to its lowest position.



CAUTION: LIFT LEVER IS SPRING LOADED. HAVE A TIGHT GRIP ON LIFT LEVER, LOWER IT SLOWLY AND ENGAGE IN LOWEST POSITION.

**NOTE:** Be sure mower side suspension arms (A) are pointing forward before sliding mower under tractor.

Slide mower under tractor until it is centered under tractor.



- ATTACH MOWER SIDE SUSPENSION ARMS (A) TO CHASSIS - Position hole in arm over pin (B) on outside of tractor chassis and secure with retainer spring.
- Repeat on opposite side of tractor.



Fig. 22

ATTACH REAR LIFT LINKS (C) - Lift rear corner of mower and position slot in link assembly over pin (D) on rear mower bracket and secure with washer and retainer spring.

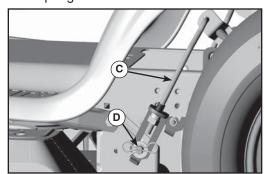


Fig. 23

ATTACH FRONT LINK (E) - Work from left side of tractor. Insert rod end of link assembly through front hole in tractor front suspension bracket (F).

Insert end of link (E) into hole in front mower bracket and secure with washer and retainer spring (J).

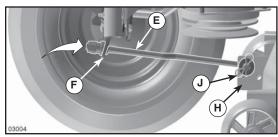


Fig. 24

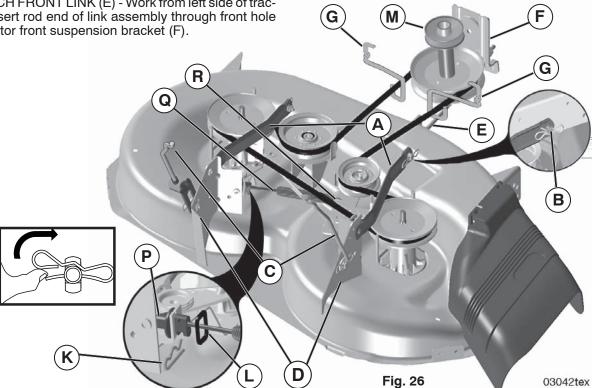
- Hook end of clutch cable spring (Q) into hole in idler
- Push clutch cable housing guide (P) into bracket, slide collar (L) onto guide and secure with retainer spring (K).
- Install belt on engine pulley (M), in belt keepers (G).



Fig. 25

**IMPORTANT: CHECK BELT FOR PROPER ROUTING** IN ALL MOWER PULLEY GROOVES.

- Raise attachment lift lever to highest position.
- If necessary, adjust gauge wheels before operating mower as shown in the Operation section of this manual.



#### TO LEVEL MOWER

Make sure tires are properly inflated to the PSI shown on tires. If tires are over or under inflated, it may affect the appearance of your lawn and lead you to think the mower is not adjusted properly.

VISUAL SIDE-TO-SIDE ADJUSTMENT (See Fig. 27)

- With all tires properly inflated and if your lawn appears unevenly cut, determine which side of mower is cutting lower.
- With a 3/4" or adjustable wrench, turn lift link adjustment nut (A) to the left to lower LH side of mower, or, to the right to raise LH side of mower.

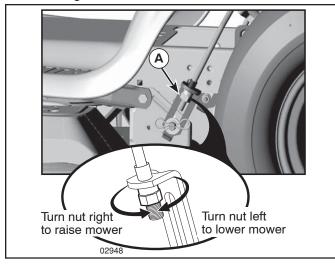


Fig. 27

**NOTE**: Each full turn of adjustment nut will change mower height about 3/16".

 Test your adjustment by mowing some uncut grass and visually checking the appearance. Readjust, if necessary, until you are satisfied with the results.

PRECISION SIDE-TO-SIDE ADJUSTMENT (See Fig. 28)

 With all tires properly inflated, park tractor on level ground or driveway.



CAUTION: Blades are sharp. Protect your hands with gloves and/or wrap blade with heavy cloth.

- Raise mower to its highest position.
- At both sides of mower, position blade at side and measure the distance (A) from bottom edge of blade to the ground. The distance should be the same on both sides.

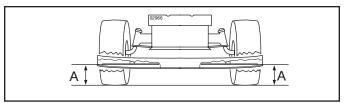


Fig. 28

- If adjustment is necessary, see step in Visual Adjustment instructions above.
- Recheck measurements, adjust if necessary until both sides are equal.

FRONT-TO-BACK ADJUSTMENT (See Figs. 29 & 30)

**IMPORTANT:** Deck must be level side-to-side.

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



CAUTION: Blades are sharp. Protect your hands with gloves and/or wrap blade with heavy cloth.

- Raise mower to highest position.
- Position blade so the tip is pointing straight forward.
   Measure distance (B) to the ground at front and rear tip of the blade.

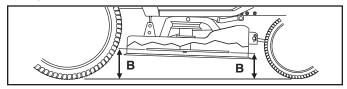


Fig. 29

- If front tip of blade is not 1/8" to 1/2" lower than the rear tip, go to the front of tractor.
- With an 11/16" or adjustable wrench, loosen jam nut A several turns to clear adjustment nut B.
- With a 3/4" or adjustable wrench, turn front link adjustment nut (B) clockwise (tighten) to raise the front of mower, or, counterclockwise (loosen) to lower the front mower.

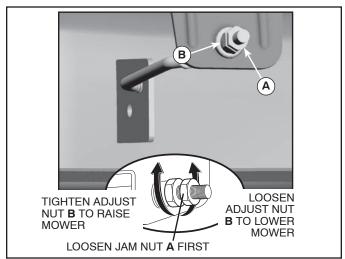


Fig. 30

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

- Provided the Recheck measurements, adjust if necessary until front tip of blade is 1/8" to 1/2" lower than the rear tip.
- Hold adjustment nut in position with wrench and tighten jam nut securely against adjustment nut.

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 31)

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

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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

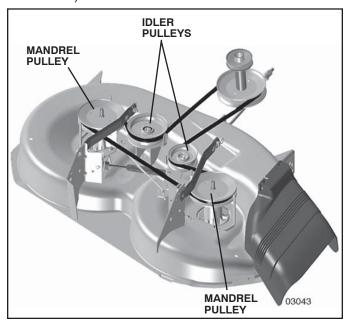


Fig. 31

#### TO CHECK BRAKE

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 serviced.

You may also check brake by:

- Park tractor on a level, dry concrete or paved surface, depress brake pedal all the way down and engage parking brake.
- Disengage transmission by placing freewheel control in "transmission disengaged" position. Pull freewheel control out and into the slot and release so it is held in the disengaged position.

The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, then the brake needs to be serviced. Contact a qualified service center.

# TO REPLACE MOTION DRIVE BELT (See Fig. 32)

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" section in this manual).

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

- Remove belt from stationary idler (A) and clutching idler (B).
- Remove belt from centerspan idler (C).
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades (D).
- Remove belt downward from engine pulley (E).
- Slide belt toward rear of tractor, off the steering plate (F) and remove from tractor.

#### **BELT INSTALLATION -**

- Install new belt from tractor rear to front, over the steering plate (F) and above clutch brake pedal shaft (G).
- Pull belt toward front of tractor and roll belt onto engine pulley (E).
- Pull belt toward rear of tractor. Carefully work belt down around transmission cooling fan and onto the input pulley (D). Be sure belt is inside the belt keeper.
- Install belt on centerspan idler (C).
- Install belt through stationary idler (A) and clutching idler (B).
- Make sure belt is in all pulley grooves and inside all belt guides and keepers.
- Install mower (See "TO INSTALL MOWER" section in this manual).

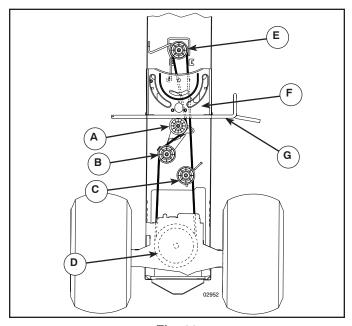


Fig. 32

#### FRONT WHEEL TOE-IN/CAMBER

Your new tractor front wheel toe-in and camber is set at the factory and is normal. The front wheel toe-in and camber are not adjustable. If damage has occurred to affect the factory set front wheel toe-in or camber, contact a qualified service center.

#### TO REMOVE WHEEL (See Fig. 33)

- 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.

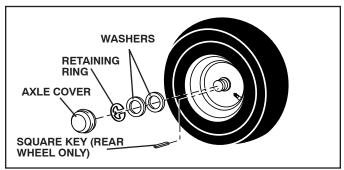


Fig. 33

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 34)



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.

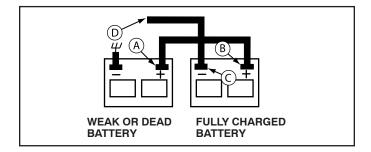


Fig. 34

#### **REPLACING BATTERY (See Fig. 35)**



WARNING: Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc. Positive terminal must be connected first to prevent sparking from accidental grounding.

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

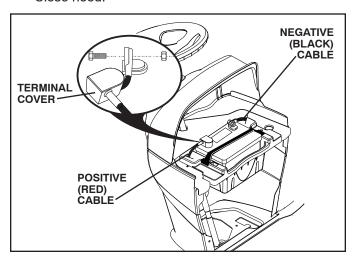


Fig. 35

#### 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.

#### 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. 36)

- · 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.

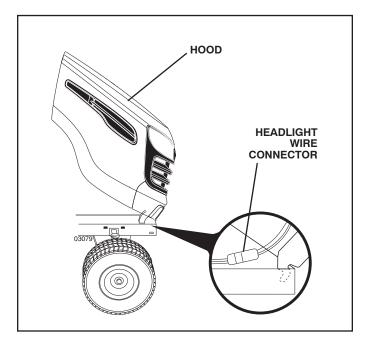


Fig. 36

#### **TRANSMISSION**

#### REMOVAL/REPLACEMENT

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

#### **ENGINE**

#### TO ADJUST THROTTLE CONTROL CABLE

The throttle control has been preset at the factory and adjustment should not be necessary. If adjustment is necessary, see engine manual.

#### TO ADJUST CHOKE CONTROL

The choke control has been preset at the factory and adjustment should not be necessary. If adjustment is necessary, see engne manual.

#### TO ADJUST CARBURETOR

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your tractor to an authorized service center for repair and/or adjustment.

## **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) CANATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Empty the fuel tank by starting the engine and 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 empty the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

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

#### CYLINDER(S)

- 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**

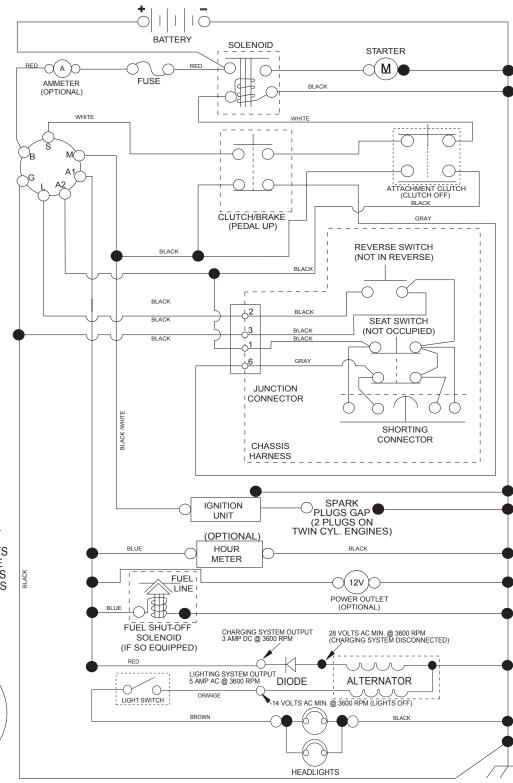
PROBLEM	CAUSE	CORRECTION		
Will not start	1. Out of fuel.	1. Fill fuel tank.		
Will flot Start	2. Engine not "CHOKED" properly.	2. See "TO START ENGINE" in Operation section.		
	3. Engine flooded.	3. Wait several minutes before attempting to start.		
	4. Bad spark plug.	4. Replace spark plug.		
	5. Dirty air filter.	5. Clean/replace air filter.		
	6. Dirty fuel filter.	6. Replace fuel filter.		
	7. Water in fuel.	<ol><li>Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li></ol>		
	8. Loose or damaged wiring.	8. Check all wiring.		
	Carburetor out of adjustment.	See "To Adjust Carburetor" in Service Adjustments section.		
	10. Engine valves out of adjustment.	10. Contact an Sears or other authorized service cente		
Hard to start	Dirty air filter.	Clean/replace air filter.		
	2. Bad spark plug.	Replace spark plug.		
	3. Weak or dead battery.	Recharge or replace battery.		
	Dirty fuel filter.	4. Replace fuel filter.		
	5. Stale or dirty fuel.	5. Empty fuel tank and refill tank with fresh, clean gas		
	6. Loose or damaged wiring.	6. Check all wiring.		
	7. Carburetor out of adjustment.	7. See "To Adjust Carburetor" in Service Adjustments section.		
	8. Engine valves out of adjustment.	8. Contact an Sears or other authorized service cente		
Engine will not	Brake pedal not depressed.	Depress brake pedal.		
turn over	Attachment clutch is engaged.	Disengage attachment clutch.		
	<ol><li>Weak or dead battery.</li></ol>	Recharge or replace battery.		
	4. Blown fuse.	Replace fuse.		
	<ol><li>Corroded battery terminals.</li></ol>	5. Clean battery terminals.		
	6. Loose or damaged wiring.	6. Check all wiring.		
	7. Faulty ignition switch.	7. Check/replace ignition switch.		
	8. Faulty solenoid or starter.	Check/replace solenoid or starter.		
	Faulty operator presence switch(es).	Contact an Sears or other authorized service cente		
Engine clicks but	<ol> <li>Weak or dead battery.</li> </ol>	Recharge or replace battery.		
will not start	<ol><li>Corroded battery terminals.</li></ol>	Clean battery terminals.		
	<ol><li>Loose or damaged wiring.</li></ol>	3. Check all wiring.		
	Faulty solenoid or starter.	Check/replace solenoid or starter.		
Loss of power	Cutting too much grass/too fast.	Raise cutting height/reduce speed.		
	2. Throttle in "CHOKE" position.	Adjust throttle control.		
	3. Build-up of grass, leaves, trash under mower.	Clean underside of mower housing.		
	4. Dirty air filter.	Clean/replace air filter.		
	5. Low oil level/dirty oil.	5. Check oil level/change oil.		
	6. Faulty spark plug.	6. Clean and regap or change spark plug.		
	7. Dirty fuel filter.	7. Replace fuel filter.		
	8. Stale or dirty fuel.	8. Empty fuel tank and refill tank with fresh, clean gas		
	9. Water in fuel.	<ol><li>Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li></ol>		
	10. Spark plug wire loose.	10. Connect and tighten spark plug wire.		
	11. Dirty engine air screen/fins.	11. Clean engine air screen/fins.		
	12. Dirty/clogged muffler.	12. Clean/replace muffler.		
	13. Loose or damaged wiring.	13. Check all wiring.		
	14. Carburetor out of adjustment.	14. See "To Adjust Carburetor" in Service Adjustments		
	15. Engine valves out of adjustment.	15. Contact an Sears or other authorized service center		
Excessive	Worn, bent or loose blade.	Replace blade. Tighten blade bolt.		
vibration	2. Bent blade mandrel.	Replace blade mandrel.		
	<ol><li>Loose/damaged part(s).</li></ol>	Tighten loose part(s). Replace damaged parts.		

# **TROUBLESHOOTING**

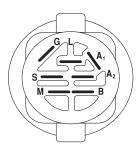
DD0D1514	0.1105	CORRECTION			
Engine continues to run when oper- ator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.			
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, 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	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves, trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace 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 parts manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>			
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) or lamp(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s) or lamp(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>			
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>			
Loss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Debris on steering plate (if equipped).</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> <li>Axle key missing.</li> </ol>	<ol> <li>Place freewheel control in "engaged" position.</li> <li>See "CLEANING" in the maintenance section.</li> <li>Replace motion drive belt.</li> <li>Purge transmission.</li> <li>Install axle key at rear wheel. See "TO REMOVE WHEEL" in the Service and Adjustments section.</li> </ol>			
Engine "back- fires" when turn- ing engine "OFF"	Engine throttle control not set between half and full speed (fast) position before stopping engine.	Move throttle control between half and full speed (fast) position before stopping engine.			
Engine dies when tractor is shifted into reverse	Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.	Turn ignition key to ROS "ON" position. See Operation section.			

#### **SCHEMATIC**

SCH11



NOTE YOUR TRACTOR IS **EQUIPPED WITH A SPECIAL** ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.



**IGNITION SWITCH** 

POSITION	CIRCUIT	"MAKE"
OFF	M+G+A1	
RUN/OVERRIDE	B+A1	
RUN	B+A1	L+A2
START	B + S + A1	



CONNECTOR (MATING SIDE)



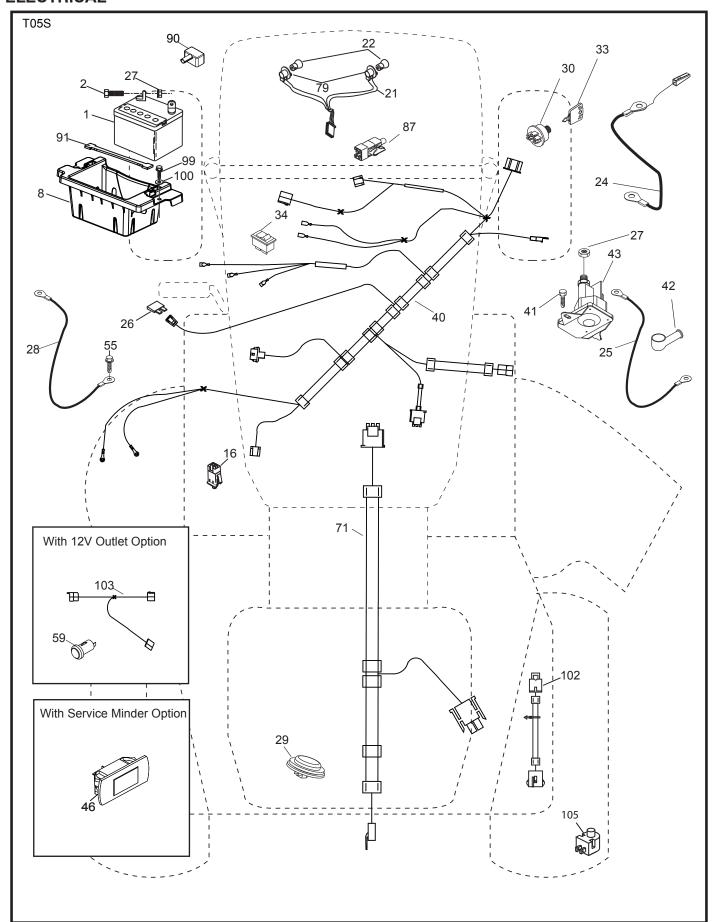
DASH HARNESS CONNECTOR (MATING SIDE)

WIRING INSULATED CLIPS NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE RE-INSTALLED TO PROPERLY SECURE YOUR WIRING.



REMOVABLE CONNECTIONS

## **ELECTRICAL**

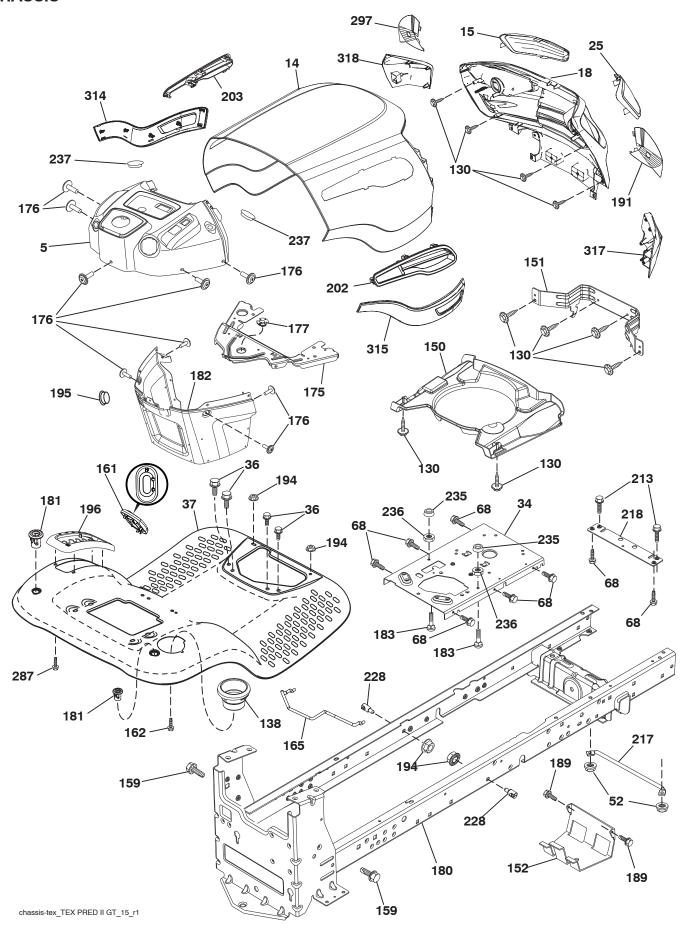


### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20 unc x 3/4
8	186491	Box Battery
16	176138	Switch Interlock Push-In
21	400252	Harness Socket Light w/4152J
22 24	4152J 400253	Bulb Light
	412895	Cable Btry. Cable Starter
	175158	Fuse
27		Nut Keps Hex 1/4-20 unc
28	145491	Cable, Ground
29		Switch, Seat
30	193350	Switch, Ign
33	411932	Key/Chain
34	110712X	Switch Light / Reset
	401098	Harness Ign. Dash
	17720408	Screw Thd Cut 1/4-20 x 1/2
	131563	Cover, Terminal
43	192507	Solenoid
46	401763	Gauge SRVCMNDR HRMTR
55		Screw Thdrol 5/16-18 x 3/4 TYTT
71	194276	Harness Ign. Chassis
79	175242	Bulbholder Asm. Incan Descent
87 90	197802 435395	Switch Interlock Clutch Cable
90	190270	Cover Terminal Battery Strap Btry.
99	17670412	Screw Hexwsh Thdrol 1/4-20 x 3/4
	19091416	Washer 9/32 x 7/8 16 Ga.
	404454	Harness Pigtail
105	407568	Switch Reverse

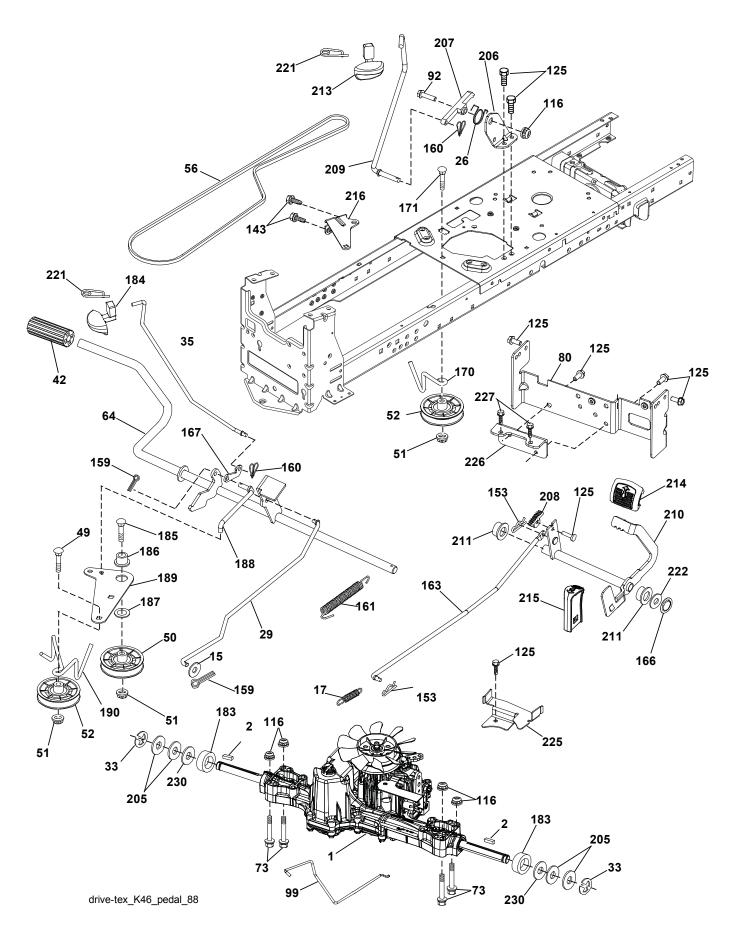
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

#### **CHASSIS**



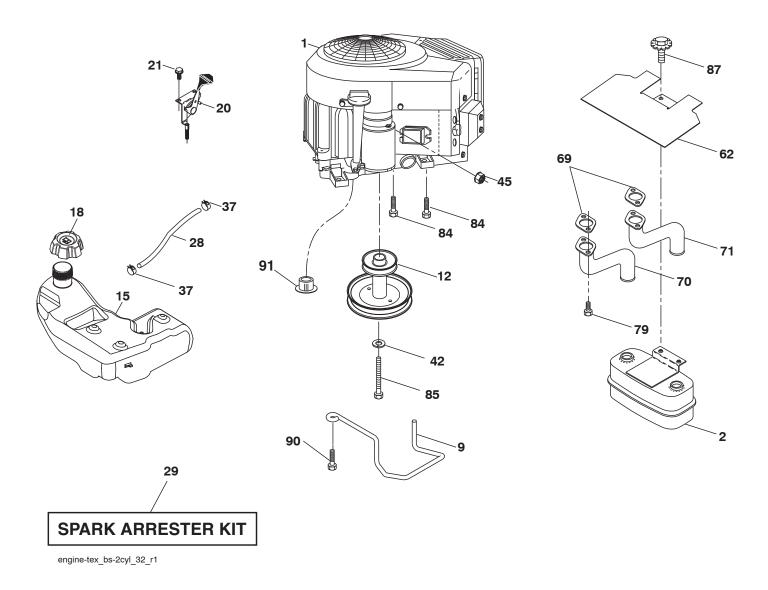
#### **CHASSIS**

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



#### **DRIVE**

	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle, TUFFTORQ K46 BT (426120) (See transaxle breakdown)	171 183 184	72110616 137057 196439X667	Bolt 3/8-16 x 2 Spacer Split Handle Parking Brake
2	123583X	Key	185	72110622	Bolt Rdhd Sqnk 3/8-16 x 2-1/2
15	19131316	Washer 13/32 x 13/16 x 16 Ga.	186	194321	Spacer Retainer
17	413678	Spring, Brake	187 188	19133210 194323	Washer Link Clutch Ground Drive
26	199679	Spring Return Cruise	189	194317	Bellcrank Ground Drive
29	403806	Rod, Brake	190	194318	Keeper Bellcrank Ground Drive
33 35	12000001 435486	Ring E Rod, Brake, Park	205	121748X	Washer
42	8883R	Cover, Foot Pedal	206	197867	Bracket Mount Latch Cruise
49	72110614	Bolt	207	197868	Latch Control Cruise
50	194327	Pulley Idler Flat	208	197869	Gear Sector Control Cruise
51	73900600	Lock Nut 3/8-16	209	199592	Rod Control Cruise
52	194326	Idler V-Groove 910" Offset	210	400980	Rocker Asm. Pedal Control
56	130969	V-Belt, Drive	211	120183X	Bearing Nylon
64	197865	Shaft Asm. Pedal Brake Control	213	196441X428	Knob Control Cruise
73	74490544	Bolt 5/16-18 x 4.5 Gr. 5	214 215	421263 197301X428	Pedal Forward Pedal Reverse
80	440619	Strap Torque	216	196131	Bracket Pulley Idler
92	74760520	Bolt Fin Hex 5/16-18 unc x 1.25	221	403187	Retainer Spring Clip Handle
99 116	415742 73900500	Rod Spring Bypass Nut Lock Hex Flange 5/16-18	222	79212010	Washer 21/32 x 1-1/4 x 10 Ga.
125	17000512	Screw 5/16-18 x 3/4	225	403319	Keeper Belt Trans.
143	17490508	Screw 5/16-18 x 1/2	226	401564	Bracket Mount Torque
153	4497H	Retainer Spring	227	17490512	Screw Thdrol. 5/16-18 x 3/4
159	76020412	Pin Cotter 1/8 x 3/4	230	188967	Washer
160	169484	Retainer Clip			
161	105709X	Spring, Return, Clutch			
163	401034	Rod Pedal Control			
166	429164	Nut Push .625	NOT		nt dimensions given in U.S. inches
167	405257	Latch Brake Parking		1 inch = 25.4	mm
170	194322	Keeper Belt Centerspan			



#### **ENGINE**

<b>KEY</b>	PART	
NO.	NO.	DESCRIPTION
1		Engine B&S Model No. 445677- 1578-G5(442176) (See engine breakdown)
2	149723	Muffler
9	194320	Keeper Belt Engine
12	405472	Pulley Engine
15	438080	Tank Fuel
18	430214	Cap Fuel
20		Control Throttle
21	416358	Screw 10 x .750 BOS Thread
28		Fuel Line
29		Spark Arrester Kit
37	123487X	Clamp Hose
42	10040700	Washer Lock 7/16
45		Nut Keps Hex 1/4-20 unc
62	434017 165391	Shield Heat Muffler Gasket
69 70	159955	Exhaust Tube LH
70 71	160589	Exhaust Tube RH
79	183906	Screw 5/16-18 x .75
84	17060620	Screw 3/8-16 x 1-1/4
85	173937	Bolt Hex 7/16-20 x 4 x Gr. 5-1.5
87		Bolt 5/16-18 unc x 3/4 w/Sems
90		Screw 3/8-16 x 1.0
91	187495	Bushing
		=

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

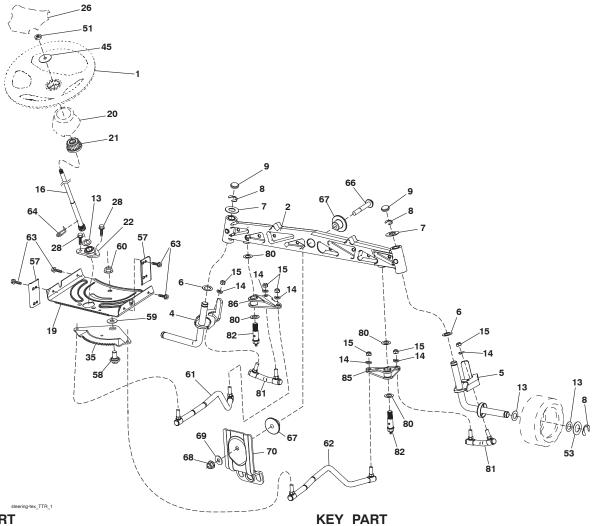
For engine service and replacement parts, call the toll free number for your engine manufacturer listed below:

Briggs & Stratton 1-800-233-3723

#### **Engine Power Rating Information**

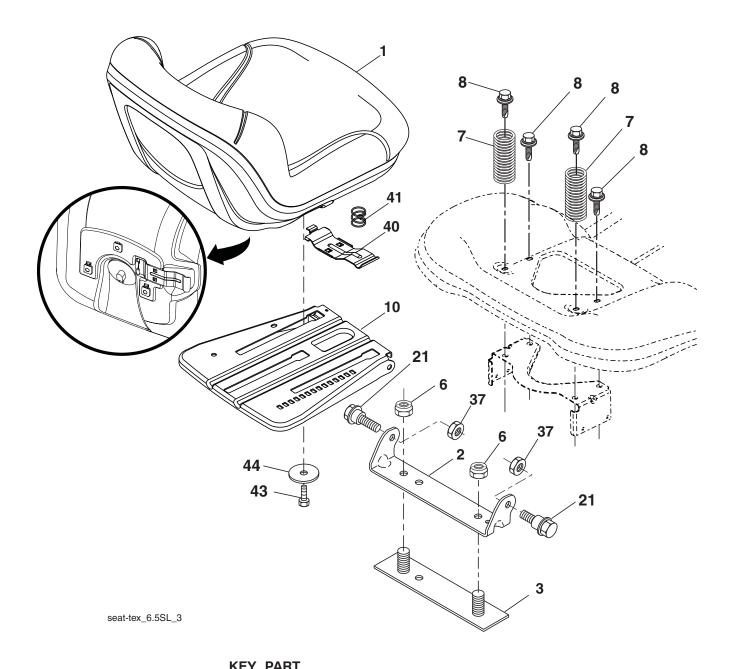
The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-05). Torque values are derived at 3060 RPM; horsepower values are derived at 3600 RPM. Actual gross engine power will be lower and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not develop the rated gross power when used in a given piece of power equipment (actual "on-site" or net power). This difference is due to a variety of factors including, but not limited to, accessories (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series engine.

## **STEERING ASSEMBLY**



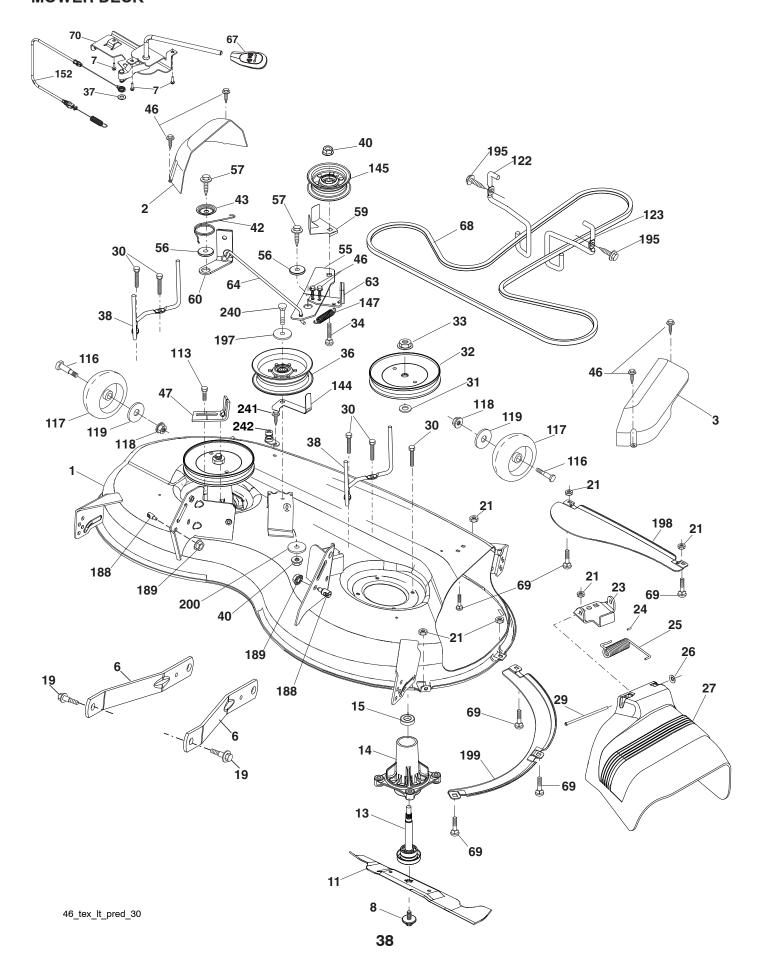
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	414803X428	Wheel, Steering	57	407465	Bracket Upstop
2	436870	Axle Asm., Front	58	194747	Bolt Shoulder Sector Pivot CFM
4	436873	Spindle Asm., LH	59	194748	Washer Thrust Sector Steering
5	436874	Spindle Asm., RH	60	73971000	Nut Flange Lock 5/8-11
6	6266H	Washer Thrust 0.75 x 1.23	61	436884	Draglink, LH
7	121748X	Washer 25/32 x 1-5/8 x 16 Ga.	62	436885	Draglink, RH
8	12000029	Ring, Klip #T5304-75	63	17000512	Screw 5/16-18 x 3/4
9	184946X667	Cap, Spindle	64	199849	Retainer Clip Spring Steering
13	121749X	Washer 25/32 x 1-1/4 x 16 Ga.	66	71020748	Bolt Hex Fghd 7/16-14 x 3 Serr
14	10040600	Washer, Lock 3/8	67	194737	Bushing PM Front Axle
15	73540600	Nut, Crown Lock 3/8-24 unf	68	73900700	Nut Lock Flange 7/16-14 Gr. 5
16	440785	Shaft Steering (Two High Units)	69	199162	Washer 1.5 x .505 x .118
19	194729	Plate Steering	70	196197	Bracket Deck Susp. Front
20	199676X428	Boot, Steering	80	1370H	Washer
21	437747	Adapter, Wheel Steering	81	436887	Link Cross RH
22	194845	Bushing, Strg. Blk	82	436877	Pivot Bolt
26	414852X428	Insert, Wheel Steering	85	441873	Pivot RH
28	17000612	Screw 3/8-16 x 3/4	86	441872	Pivot LH
35	440770	Gear, Sector Plate			
45	19183812	Washer	NOT	<b>–</b> All	
51	73940800	Nut Hex 1/2-20 unf	NOI	E: All compone	ent dimensions given in U.S. inches
53	188967	Washer Hardened .793 x 1.637 x .060		1 inch = 25.	4 mm

### **SEAT ASSEMBLY**



NO.	NO.	DESCRIPTION
1	423646	Seat
2	180166	Bracket Pivot Fender
3	140675	Strap, Asm Fender
6	STD541437	Nut, Lock W/Ins. 3/8-16 unc
7	124181X	Spring, Seat Cprsn
8	171877	Bolt 5/16-18 unc x 3/4 w/Sems
10	196977	Pan, Seat
21	171852	Bolt, Shoulder 5/16-18
37	STD541431	Nut, Lock 5/16-18 unc
40	197661	Handle Slide Seat
41	198200	Spring Latch Seat
43	74760612	Bolt 3/8-16 x 3/4
44	19133812	Washer 13/32 x 2-3/8 x 12 Ga.

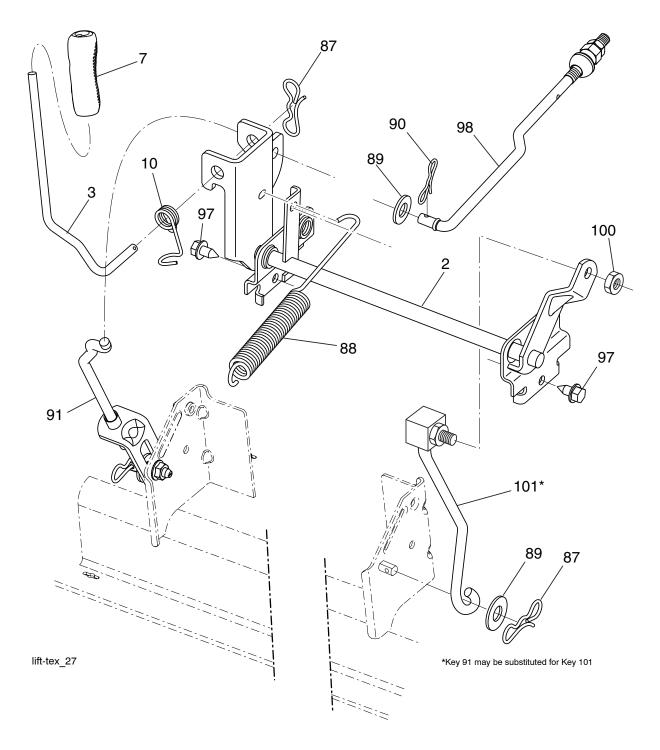
### **MOWER DECK**



### **MOWER DECK**

KEY	PART	DECORIDATION	KEY	PART	DESCRIPTION
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1		Mower Housing	67		Handle, Clutch Cable
2	405507	Cover Mandrel LH	68	405143	V-Belt
3	405506	Cover Mandrel RH	69	72140505	Bolt
6	195186	Arm Suspension	70	199972	Clutch Asm. Manual
7	416358	Screw #10 x 0.750 BOS Thread	113	17000510	Screw 5/16-18
8	193003	Bolt/Washer Asm. 7/16-20 unf	116	4898H	Bolt, Shoulder
11	403107	Blade Mulching	117	188606	Wheel, Gauge
13	192872	Shaft Assembly, Mandrel	118	73900600	Nut, Crownlock 3/8-1
14	187281	Housing, Mandrel	119	19121414	Washer 13/32 x 7/8 x 14 Ga.
15	110485X	Bearing, Ball, Mandrel	122	197258	Keeper Belt Eng. LH
19	196539	Bolt, Shoulder	123	197259	Keeper Belt Eng. RH
21	73680500	Nut	144	199204	Keeper Belt
23	192557	Bracket, Deflector	145	193197	Pulley Idler
24	105304X	Cap, Sleeve	147	401872	Spring Return
25	197026	Spring, Torsion, Deflector	152	435111	Cable Clutch Manual w/Spr.
26	110452X	Nut, Push	188	195161	Stud Fastener
27	405357	Shield, Deflector	189	73900500	Nut Lock Hex Flange
29	131491	Rod, Hinge	195	17000612	Screw Hex Wsh. Thdr. 3/8 -16 x 3/4
30	173984	Screw Thdrol. Rolling Wsh. Hd.	197	19131312	Washer 13/32 x 13/16 x 12 Ga.
31	187690	Washer, Spacer	198	403149	Baffle Center Front
32	197473	Pulley, Mandrel	199	403150	Baffle Front RH
33	400234	Nut, Toplock, Flanged	200	413524	Washer 13/32 x 1 x 1/2 x 11 Ga
34	72110612	Bolt Carr. Sh. 3/8-16 x 1-1/2 Gr. 5	240	74520636	Bolt Fin. Hex 3/8-16 x 2-1/4 Gr. 5
36	197379	Pulley, Idler, Flat	241	152927	Screw
37	19131316	Washer 13/32 x 13/16 x 16 Ga.	242	415598	Port Washout
38	432520	Keeper Belt Mandrel		416405	Coupling Quick Connect
40	73900600	Nut, Lock Flg. 3/8-16 unc		192870	Mandrel Assembly (Includes hous-
42	198410	Spring Torsion Brake			ing, shaft assembly, and bearing
43	197256	Spring Torsion Retainer			only - pulley/nut/washer and blade
46	137729	Screw			bolt/washers not included)
47	197250	Bracket Clutch Cable		432250	Replacement Mower, Com-
55	197249	Arm, Idler			plete
56	199092	Spacer, Retainer			·
57	17000616	Screw Hex Wsh. Thd. 3/8-16 x 1			
59	141043	Guard, Tuv. Idler (94)			
60	199471	Arm Brake Mower			
63	199477	Arm Brake Mower	NOTE	· All compone	ent dimensions given in U.S. inches
64	405138	Linkage Brake	NOTE	1 inch = 25.	
		· ·		1 111011 – 23.	7 111111

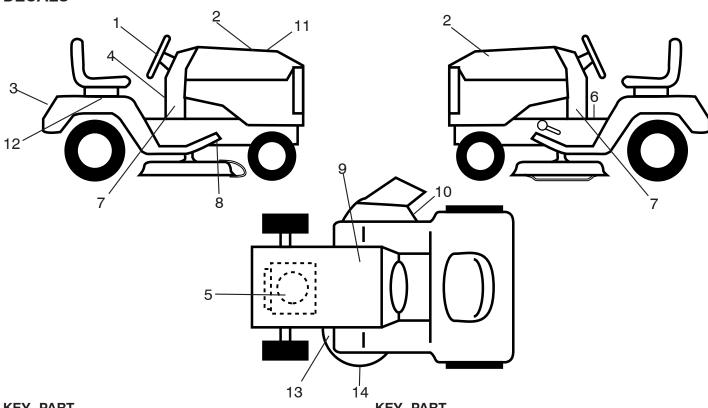
### **MOWER LIFT**



KEY	PART	
NO.	NO.	DESCRIPTION
2	422027	Shaft Asm., Lift
3	195231	Lever Asm., Lift RH
7	196492X428	Grip, Lever
10	196314	Spring Torsion
87	194209	Pin Cotter 7/16 Bow Tie Lock
88	410710	Spring Lift Assist
89	19191912	Washer Clear Zinc
90	194208	Pin Cotter 5/16 Bow Tie Lock

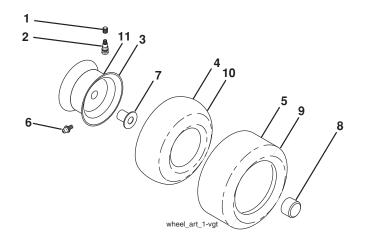
KEY NO.	PART NO.	DESCRIPTION
91	195181	Link Lift Susp Mower Rear
97	17000612	Screw 3/8-16 x .75
98	195270	Link Lift Susp. Front Mower
100	73930600	Nut Centerlock 3/8-16 unc
101	407003	Link Asm Lift Fxd

# **DECALS**



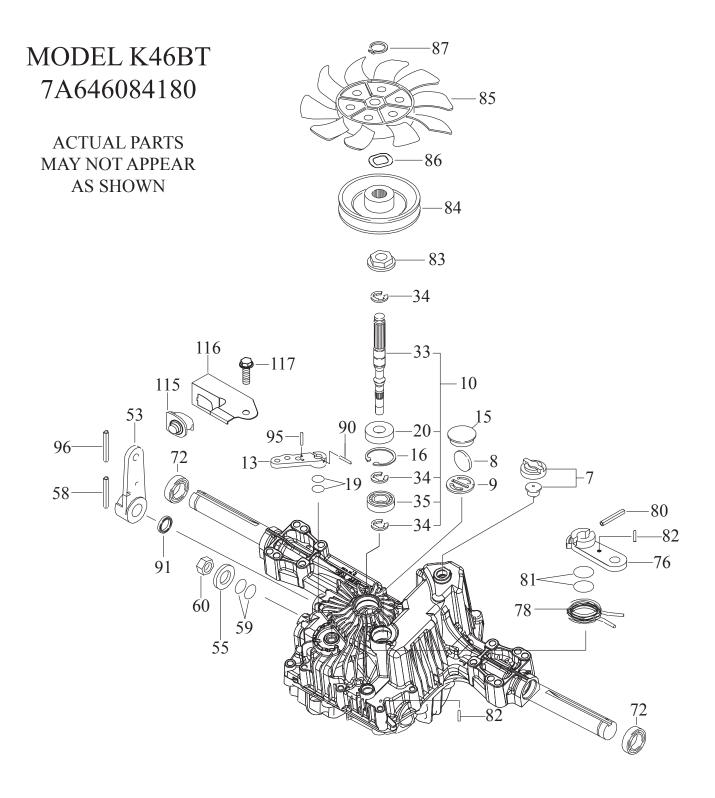
<b>KEY</b>	PART		<b>KEY</b>	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	439525	Decal, Steering	11	427508	Decal, Replacement
2	441123	Decal, Hood	12	442517	Label EPA Compliance
3	441122	Decal, Fender	13	160396	Decal, Mower V-Belt SCH.
4	435286	Decal, Warning	14	426593	Decal, Mower Precision
5	426029	Decal, Engine HP		193226X428	Pad, Footrest LH
6	411658	Decal, Fender Warning		400981X428	Pad, Footrest
7	425787	Decal, Lower Dash		166960	Decal, Bypass
8	421534	Decal, V-Belt Schematic Drive		442261	Manual, Öwner's (English)
9	149517	Decal, Battery Warning		442263	Manual, Owner's (French)
10	170563	Decal, Mower Warning			, ,

### **WHEELS AND TIRES**



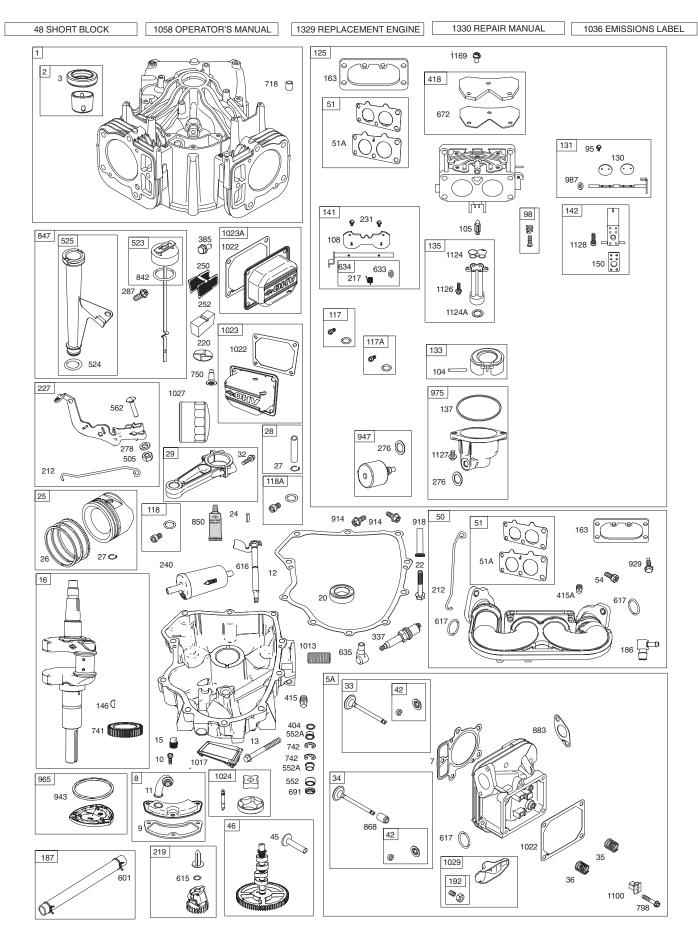
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106732X613	Rim Assembly, Front
4	59904	Tube, Front
5	106222X	Tire, Front
6	278H	Fitting, Grease
7	9040H	Bearing, Flange
8	104757X428	Cap, Axle
9	138468	Tire, Rear
10	7152J	Tube, Rear
11	106108X613	Rim Assembly, Rear
	144334	Sealant, Tire (10 oz. Tube)

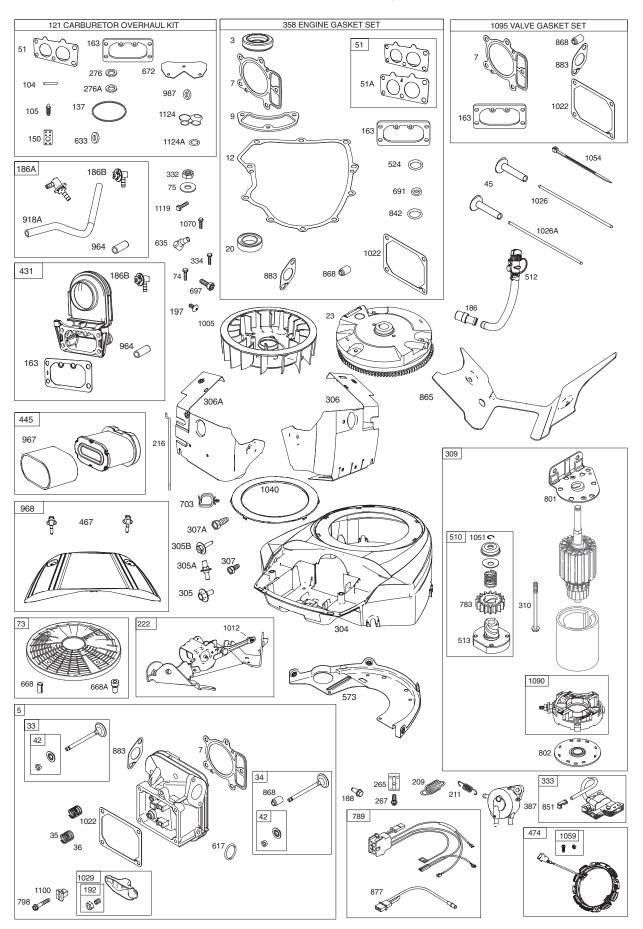
# TRACTOR - - MODEL NUMBER 944.601270 TUFF TORQ TRANSAXLE - MODEL NUMBER K46BT



# TRACTOR - - MODEL NUMBER 944.601270 TUFF TORQ TRANSAXLE - MODEL NUMBER K46BT

KEY NO.	PART NO.	DESCRIPTION
16 19 20 33 34 35 55 58 59 60 72 76 78 80 81 82 83 84 85 86 87 90 91 95 96 115 116	414395 414396 414397 415923 414398 414399 414400 414401 414402 414403 414404 414405 414405 414431 415924 415925 415926 415927 414407 414408 414409 414410 414411 414412 414413 414416 414417 414418 414419 414419 414420 415928 415929	Vent Valve 15 Magnet Magnet Holder Pump Shaft/bearing Kit Bypass Lever Sealing Cap 30 Snap Ring C 35 O-ring 1a P10a Seal Tc 153507 Pump Shaft (Standard) E-ring 15 Bearing 6202c3 Control Lever F Washer 12 Roll Pin 6*40 O-ring 1a P14 Nut 12 Seal 19*32*8 Brake Lever Brake Return Spring Spring Pin 5*32 O-ring 1a P12 Spring Pin 5*32 O-ring 1a P12 Spring Pin 4*16 Spine Collar Pulley L Fan, Black Wave Washer Snap Ring Spring Pin 3.0a*20 Oil Seal 16*22*.03 Spring Pin 3.0a*16 Roll Pin 3.5*40 Switch 6440-11 Delta Switch Bracket
117	415930	Tapping Screw 8 * 20





KEY	PART	DECORIDEION	KEY	PART	DECORUTION
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
			125	796227	Carburetor
1	793564	Cylinder Assembly	130	690993	Valve-Throttle
2	797673	Bushing/Seal Kit (Magneto	131	499805	Kit-Throttle Shaft
0	004000-	Side)	133	699724	Float-Carburetor
3	391086s	Seal-Oil (Magneto Side)	135	699729	Tube-Fuel Transfer
4	796307	Sump-Engine	137	690994	Gasket-Float Bowl
5 5A	796231 796232	Head-Cylinder (Cylinder #1)	141	796228	Kit-Choke Shaft
5A 7	693997	Head-Cylinder (Cylinder #2) Gasket-Cylinder Head	142	699726	Nozzle-Carburetor
8	792185	Breather Assembly	146 150	690979	Key-Timing Gasket-Nozzle
9	690937	Gasket-Breather	163	690995 691001	Gasket-Air Cleaner
10	697551	Screw (Breather Assembly)	186	796532	Hose-Connector (Oil Drain
11	792184	Tube-Breather	100	190302	Hose)
12	697227	Gasket-Crankcase	186A	799158	Hose-Connector (EVAP Sys
13	793988	Screw (Cylinder Head)	100/1	700100	tem)
15	690946	Plug-Oil Drain	186B	845141	Hose-Connector
16	796237	Crankshaft	187	791766	Line-Fuel (Cut to Required
20	795387	Seal-Oil (PTO Side)			Length)
22	694966	Screw (Crankcase Cover/Sump)	188	697551	Screw (Control Bracket)
23	691054	Flywheel	192	690083	Adjuster-Rocker Arm
24	222698s	Key-Flywheel	197	697820	Screw (Back Plate)
25	792023	Piston Assembly (Standard)	209	798921	Spring-Governor (Órange)
	792072	Piston Assembly (020" Over	211	691019	Spring-Governed Idle (No Color)
		size)	212	695238	Link-Throttle
26	793561	Ring Set (Standard)	216	796229	Link-Choke
	792073	Ring Set (.020" Oversize)	217	695409	Spring-Choke Return
27	690975	Lock-Piston Pin	219	793338	Gear-Governor
28	696581	Pin-Piston	220	690412	Washer (Governor Gear)
29	796209	Rod-Connecting	221	841026	Cup-Governor
32	690976	Screw (Connecting Rod) Valve-Exhaust	222	798915	Bracket-Control
33 34	697576 792200	Valve-Exhaust Valve-Intake	227	798856	Lever-Governor Control
35	694865	Spring-Valve (Intake)	231	690718	Screw (Choke Valve)
36	694865	Spring-Valve (Intake) Spring-Valve (Exhaust)	240 250	695666	Filter-Fuel
42	499586	Keeper-Valve	250 252	690957 794389	Retainer-Breather Collector-Oil
45	690977	Tappet-Valve	265	691024	Clamp-Casing
46	792555	Camshaft	267	792629	Screw (Casing Clamp)
48	698172	Short Block	276	695410	Washer-Sealing
50	695241	Manifold-Intake	278	792651	Washer (Governor Control
51	795123	Gasket-Intake	2,0	702001	Lever)
51A	690950	Gasket-Intake	287	697551	Screw (Dipstick Tube)
53	690951	Stud (Carburetor)	304	797407	Housing-Blower
54	699816	Screw (Intake Manifold)	305	691005	Screw (Blower Housing)
73	494439	Screen-Rotating	305A	698336	Screw (Blower Housing)
74	698425	Screw (Rotating Screen)	305B	790690	Screw (Blower Housing) (Blower
75	691056	Washer (Flywheel)			Housing to Intake Elbow)
95	690718	Screw (Throttle Valve)	306	798855	Shield-Cylinder (Cylinder #2)
98	699721	Kit-Idle Speed	306A	796852	Shield-Cylinder (Cylinder #1)
104	694918	Pin-Float Hinge	307	691003	Screw (Cylinder Shield) (10-
105	797410	Valve-Float Needle			24x.43)
108	699723	Valve-Choke	307A	697551	Screw (Cylinder Shield) (1/4-
117	792296	Jet-Main (Standard) (Left Jet)	000	40==0=	20x.66)
117A	842627	Jet-Main (Standard) (Right Jet)	309	497595	Motor-Starter
118	699457	Jet-Main (High Altitude) (Left	310	690323	Screw (Starter Motor)
1104	600700	Jet)	332	691059	Nut (Flywheel)
118A	699733	Jet-Main (High Altitude) (Right	333	691060	Armature-Magneto
121	797890	Jet) Kit-Carburetor Overhaul	334	691061	Screw (Magneto Armature)
141	191090	Mi-Garburetor Overnaur	337	793541	Plug-Spark

KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
358	694012	Gasket Set-Engine	918A	799160	Hose-Vacuum (EVAP System)
385	797409	Screw (Fuel Pump)	943	796222	Seal-O Ring (Oil Pump Cover)
387	808656	Pump-Fuel	947	798779	Solenoid-Fuel
404	690442	Washer (Governor Crank)	964	799159	Cap-Connector
415	690283	Plug (Oil Pressure Switch Hole)	965	796221	Cover-Oil Pump
415A	794903	Plug (Intake Manifold)	967	792303	Filter-Pre Cleaner
418	795912	Plate-Carburetor	968 075	795120	Cover-Air Cleaner
431	798860	Elbow-Intake	975 097	798775 691000	Bowl-Fuel Seal-Throttle Shaft
445 462	792105 691261	Filter-Air Cleaner Cartridge Washer (Starter Cable)	987 1005	791236	Fan-Flywheel
467	790697	Knob-Air Cleaner	1012	797926	Retainer-Link
474	696459	Alternator	1013	690954	Nipple-Oil Filter
505	691029	Nut (Governor Control Lever)	1017	796214	Screen-Oil Pump
510	696541	Drive-Starter	1022	690971	Gasket-Rocker Cover
512	796530	Hose-Oil Drain	1023	793146	Cover-Rocker (Cylinder #1)
513	692024	Clutch-Drive	1023A	499600	Cover-Rocker (Cylinder #2)
523	691036	Dipstick	1024	796220	Pump-Oil
524	691032	Seal-Dipstick Tube	1026	690981	Rod-Push (Steel) (Exhaust)
525	691037	Tube-Dipstick	1026A	690982	Rod-Push (Aluminum) (Intake)
552	796638	Bushing-Governor Crank	1027	795890	Filter-Oil
552A	690553	Bushing-Governor Crank	1029	690972	Arm-Rocker
562	690311	Screw (Governor Control Lever)	1036		Label-Emissions (Available from
573	790444	Plate-Back			a Briggs & Stratton Authorized
601	691038	Hose-Clamp (Black)	1040	701007	Dealer)
615 616	698290 691045	Retainer-Governor Shaft Crank-Governor	1040 1051	791237 691265	Plate-Trim
617	697891	Seal-O Ring (Intake Manifold)	1051	280275	Ring-Retaining Tie-Cable
017	097091	(Red)	1054	276245	Operator's Manual
633	699813	Seal-Choke/Throttle Shaft	1059	698516	Kit-Screw/Washer
	0000.0	(Choke Shaft)	1070	791680	Screw (Flywheel Fan)
634	698779	Spring/Seal Assembly	1090	691293	Retainer-Brush
635	66538s	Boot-Spark Plug	1095	694013	Gasket Set-Valve
654	690958	Nut (Carburetor)	1000	791959	Pivot-Rocker Arm
668	691215	Spacer (Rotating Screen)	1119	691183	Screw (Alternator)
668A	691500	Spacer (Rotating Screen)	1124	690988	Seal-O Ring (Fuel Transfer
672	690234	Gasket-Carburetor Plate			Tube)
691	790574	Seal-Governor Shaft	1124A	841653	Seal-O Ring (Fuel Transfer
697	690372	Screw (Drive Cap)	1106	600001	Tube)
703	691010	Clip	1126	690991	Screw (Fleet Bowl)
718 741	690959 690980	Pin-Locating Gear-Timing	1127 1128	695407 690990	Screw (Float Bowl) Screw (Carburetor Nozzle)
741	690328	Retainer-E Ring	1169	690990	Screw (Carburetor Nozzle) Screw (Carburetor Cover Plate)
750	796208	Screw (Oil Pump Cover)	1329	090990	Replacement Engine (Not Avai
783	695708	Gear-Pinion	1023		lable at this printing)
789	698330	Harness-Wiring	1330	273521	Repair Manual
798	697890	Screw (Rocker Arm)			
801	691283	Cap-Drive			
802	691286	Cap-End			
842	691031	Seal-O Ring (Dipstick)		Gasket Set	Key No. 358
847	499602	Dipstick/Tube Assembly		asket Set	Key No. 1095
850	100106	Sealant-Liquid	Carbure	tor Overhaul k	Kit Key No. 121
851	493880s	Terminal-Spark Plug			
865A	792286	Cover-Air Guide (Valley)			
868	690968	Seal-Valve			
877	790544	Wire/Connector-Alternator			
883	690970	Gasket-Exhaust	NOTE:	All componen	t dimensions given in U.S. inches
914 918	691127 797468	Screw (Rocker Cover) Hose-Vacuum		1 inch = 25.4	
910	191400	1 105E-vacuulli			

# **SERVICE NOTES**

# **SERVICE NOTES**

**GENERAL:** Craftsman products are warranted to be free from defects in materials or workmanship for a specific time period as set-out below (the "Warranty Period"). Warranties extend to the original purchaser of a Craftsman product only. Purchases made through an online auction or through any website other than www.sears.ca are excluded. The relevant Warranty Period commences on the original date of purchase. Within this period, SEARS CANADA, Inc. will, at its sole option, repair or replace any products or components which fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost.

**EXCLUSIONS:** This warranty does not cover failures due to normal wear, abuse, misuse, neglect (including but not limited to the use of stale fuel, dirt, abrasives, moisture, rust, corrosion, or any adverse reaction due to improper storage or use habits), improper maintenance or failure to follow maintenance guidelines and/or instructions, failure to operate the product in accordance with the owner's manual or any additional instructions or information provided at the time of purchase or in subsequent communications with the original purchaser, accident or unauthorized alterations or repairs made or attempted by others. Also excluded from warranty coverage - except as provided below - are the following: maintenance, adjustments, components subject to wear including but not limited to: cosmetic components, belts, blades, blade adapters, bulbs, tires, filters, guide bars, lubricants, seats, grips, recoil assy's, saw chains and bars, trimmer lines and spools, spark plugs, starter ropers and tines, and discoloration resulting from ultraviolet light. Any product missing the model and/or serial number identification label will be disqualified from coverage under this warranty.

<u>REPAIRS</u>: Repairs have a 90 day warranty. If the defective product is still within the Warranty Period, then the new warranty is 90 days from the date of repair or to the end of the original Warranty Period, whichever period is longer.

<u>DISCLAIMERS</u>: THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN (OTHER THAN AS STATED HEREIN), AND WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM PROVINCE TO PROVINCE.

IN NO EVENT SHALL SEARS BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT. THE EXCLUSIONS IN THIS PARAGRAPH SHALL NOT APPLY IN JURISDICATIONS WHERE APPLICABLE LAW DOES NOT ALLOW FOR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. IN SUCH JURISDICTIONS, THIS PARAGRAPH SHALL NOT APPLY, BUT THE REMAINING PROVISIONS OF THIS DOCUMENT SHALL REMAIN VALID.

SEARS retains the exclusive right to repair or replace the product or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

<u>CUSTOMER RESPONSIBILITIES</u>: In additional to complying with all suggested maintenance guidelines and instructions, customers' obligations shall include but shall not be limited to: operating the product in accordance with the owner's manual or any additional instructions or information provided at the time of purchase or in subsequent communications to the purchaser from time to time, exhibit reasonable care in the use, operation, maintenance, general upkeep and storage of the product. Failure to comply with these requirements will void any applicable warranty.

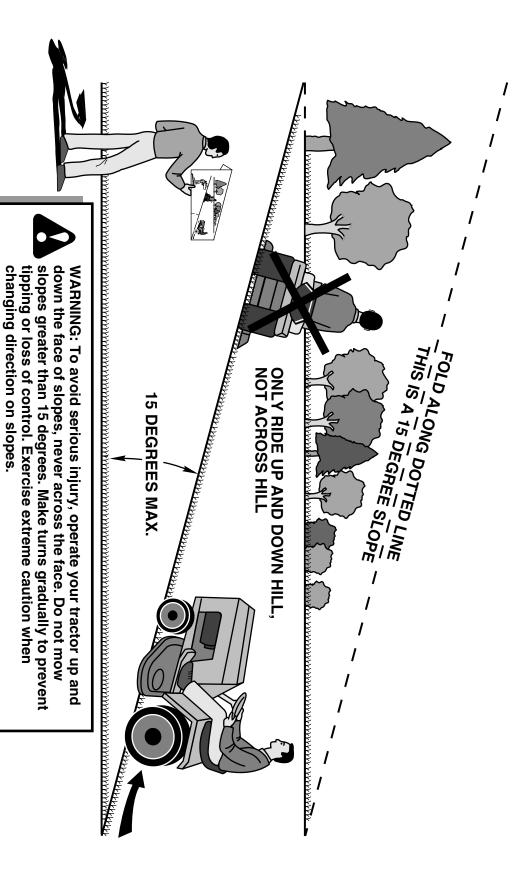
<u>LIST OF APPLICABLE WARRANTY PERIODS</u>: The following list contains the applicable Warranty Period for your Craftsman product and is based on a combination of the type of product or component and the intended and actual use of the product or component:

- 90 DAYS: Craftsman products intended for use or actually used for commercial, institutional, professional or incomeproducing purposes
- 2. **2 YEARS:** Craftsman riding lawn mowers, yard and garden tractors, walk behind mowers, tillers, brush cutters, snow blowers, handheld blowers, backpack blowers, hedge trimmers and electrical products for noncommercial, nonprofessional, non-institutional, or non-income-producing use, except for those components which are part of engine systems manufactured by third party engine manufacturers for which the purchase has received an separate warranty with product information supplied at the time of purchase.
- 3. 1 YEAR: Craftsman power cutters, stump grinders, pole pruners, gas chain saws, electric chain saws, trimmer attachments, baggers and pole saws for noncommercial, nonprofessional, non-institutional, or non-income-producing use.
- 4. 90 DAYS: All defective batteries, which will be replaced during this 90-day Warranty Period.
- 5. 60 DAYS: Additional Warranty Period of 60 days will apply to adjustments and worn products or components BUT DOES NOT INCLUDE WEAR OR ADJUSTMENTS for products used for commercial, institutional, professional or incomeproducing purposes. Wear items include but are not limited to: belts, blades, tires, spark plugs, air filters, chains, shear bolts, skid plates, scraper bars, drift cutters, ropes, tines, collection bags and pulleys.

As the Warranty Period runs from the date of purchase and NOT from the date that a product is delivered, opened, assembled or first used, please ensure during this time period that your product or component has been assembled and tested for correction operation regardless of when you intend to actually use it. Claims made after the Warranty Period has expired will not be honored.

PROOF OF PURCHASE/DOCUMENTATION: Warranty coverage is conditioned upon the original purchaser furnishing SEARS CANADA or its authorized third party service provider if applicable, with the original sales receipt or other adequate written proof of the original purchase date and identification of the product. In the event that the original purchaser is unable to provide a company of the original sales receipt, SEARS CANADA Inc. reserves the right to determine in its sole discretion what other written proof of the original purchase date and identification of the product is acceptable.

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

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