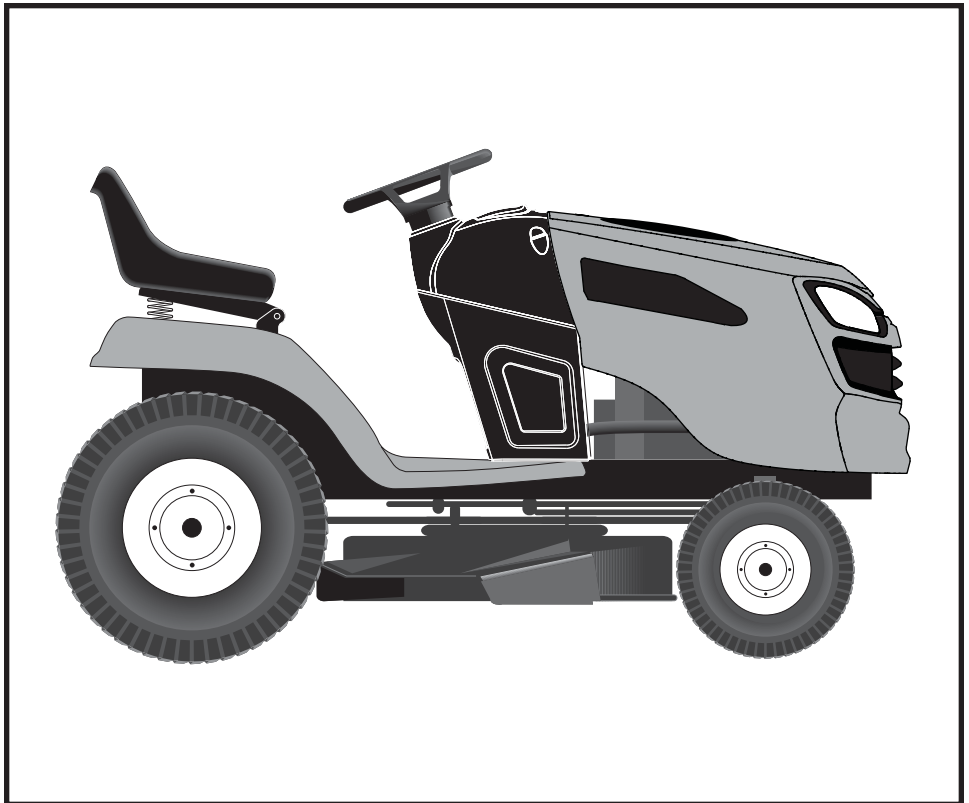


**SEARS**  
OWNER'S  
MANUAL

**MODEL NO.  
944.601280**

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



**CRAFTSMAN®**

**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.**

\*As rated by the engine manufacturer

**Sears Canada, Inc., Toronto, Ontario M5B 2B8**



# 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



**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 all times.
- 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 backing.
- 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 light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- 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.



# 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 fuel-soaked 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 10W30 (above 32°F) SAE 5W30 (below 32°F) SYNTHETIC (below 0°F)
Your tractor was shipped from the factory with non-synthetic SAE 10W-30 motor oil.	
OIL CAPACITY:	64 Oz
SPARK PLUG:	Champion RC12YC (GAP: .030")
GROUND SPEED (MPH):	Forward: 0 - 5.2 Reverse: 0 - 2.9
CHARGING SYSTEM:	15 AMPS @ 3600 RPM
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 authorized service center/department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

## MAINTENANCE AGREEMENT

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

## CUSTOMER RESPONSIBILITIES

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

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

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

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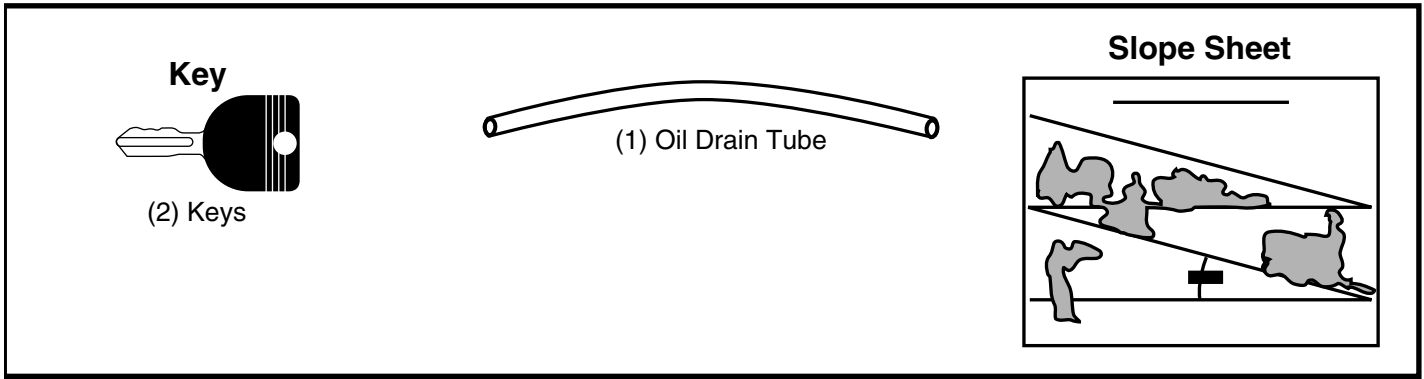
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# UNASSEMBLED PARTS



## 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 seat 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 "REPLACING BATTERY" in the "Service and Adjustments" section in this manual.

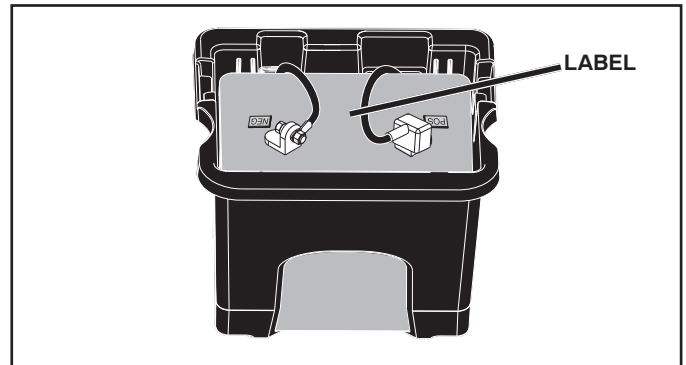


Fig. 1

#### 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.

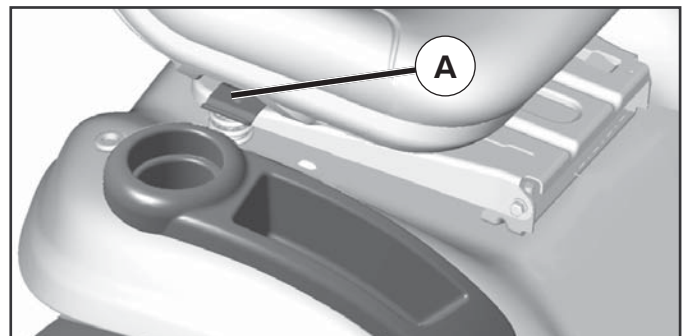


Fig. 2

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# ASSEMBLY

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

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

## **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 clutch/brake pedal.
- Place freewheel control in "transmission disengaged" position (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor forward off skid.
- Remove banding holding the deflector shield up against tractor.

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:*

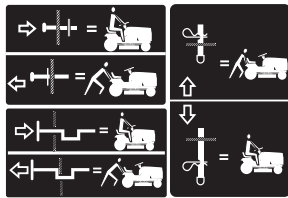
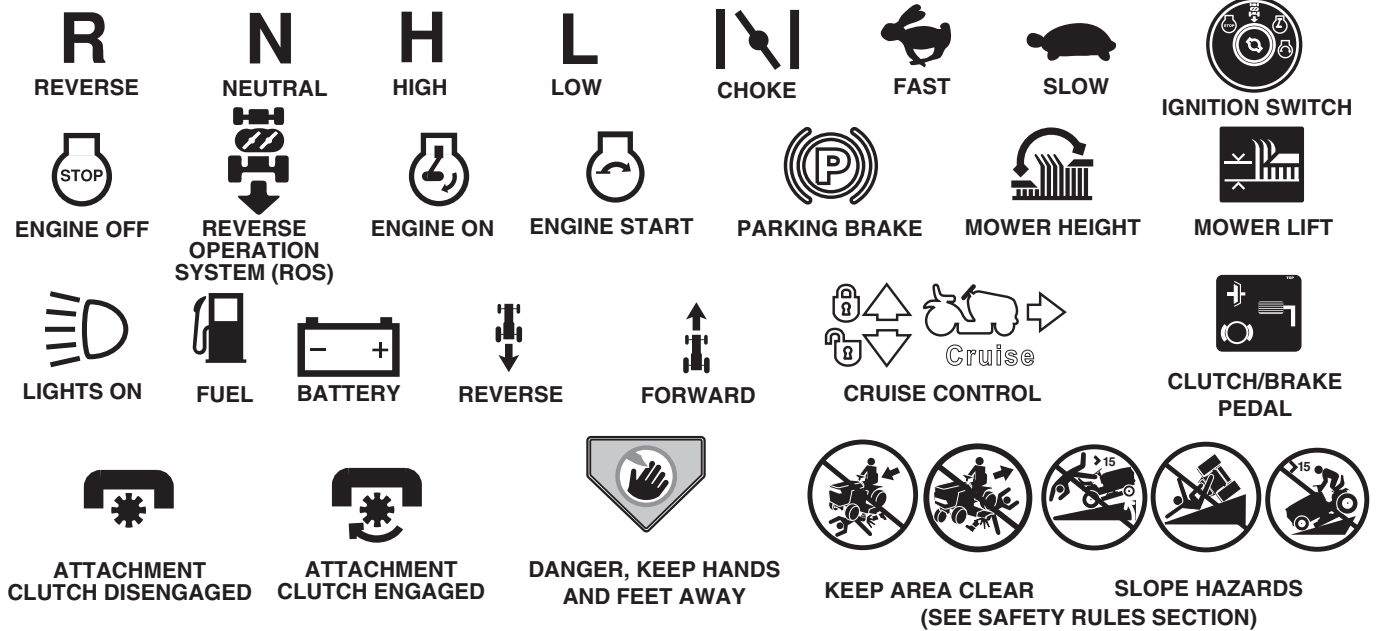
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged.
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ 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 "PURGE TRANSMISSION" in the Operation section of this manual).

# OPERATION

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



**FREE WHEEL**  
(Automatic Models only)



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



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



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



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

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



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



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

# OPERATION

## 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.

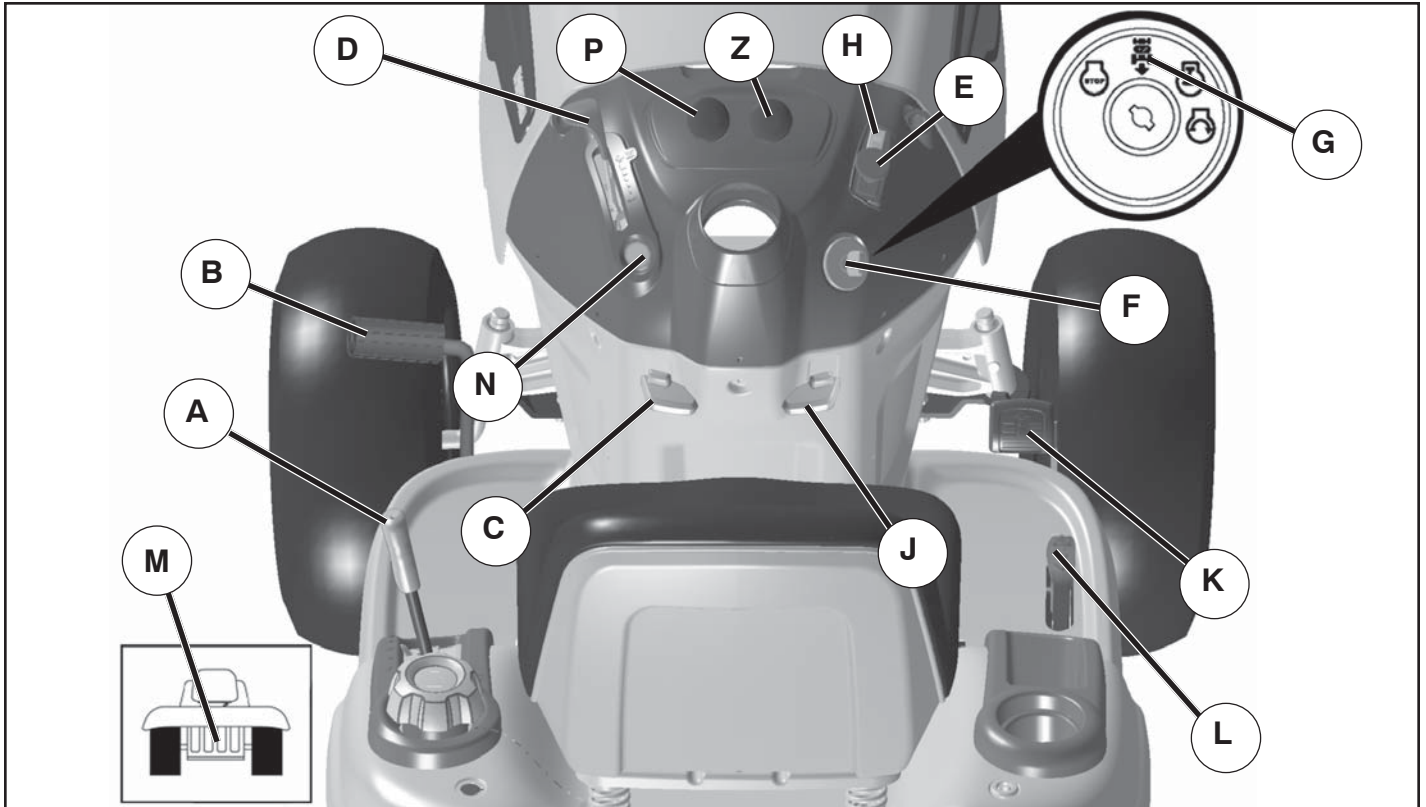


Fig. 3

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 CONTROL** - Used to control engine speed.

**(E) ATTACHMENT CLUTCH SWITCH** - 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.

**(N) CHOKE CONTROL** - Used when starting a cold engine.

**(P) SERVICE REMINDER / HOUR METER** - Indicates when service is required for the engine and mower.

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



# OPERATION



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.

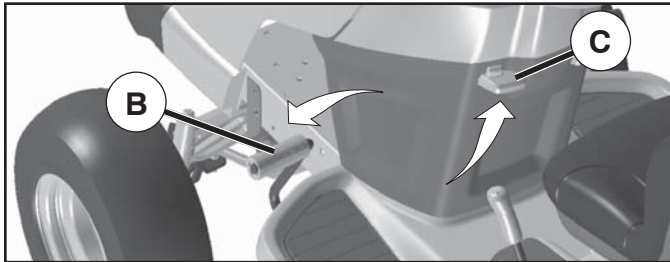
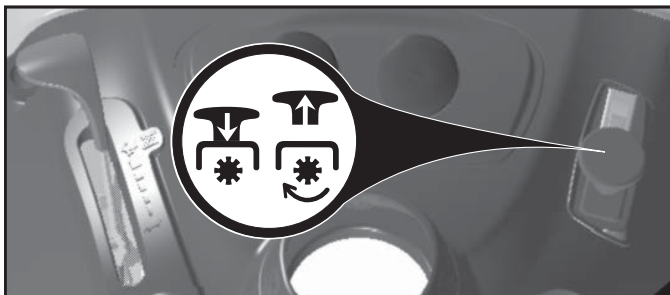


Fig. 4

### STOPPING (See Fig. 5)

MOWER BLADES -

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



(☒) ATTACHMENT CLUTCH SWITCH "DISENGAGED"

(☑) ATTACHMENT CLUTCH SWITCH "ENGAGED"

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.

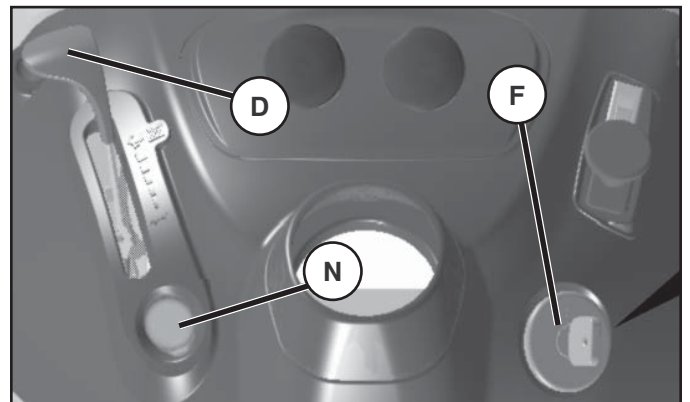


Fig. 6

### TO USE CHOKE CONTROL (N) (See Fig. 6)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

- To engage choke control, pull knob out. Slowly push knob in to disengage.

### TO MOVE FORWARD AND BACKWARD (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.

# OPERATION

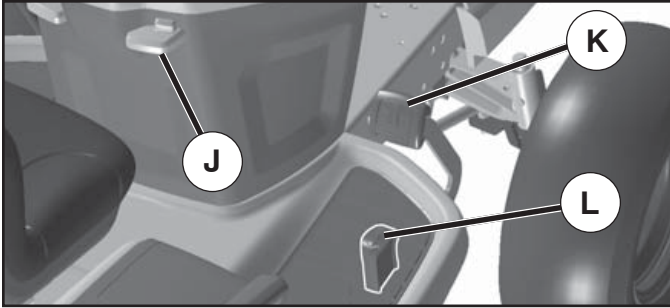


Fig. 7

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

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

### 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 terrain 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.

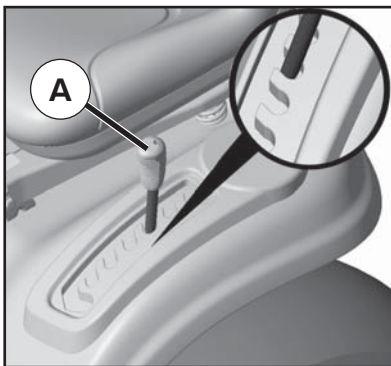


Fig. 8

- 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.

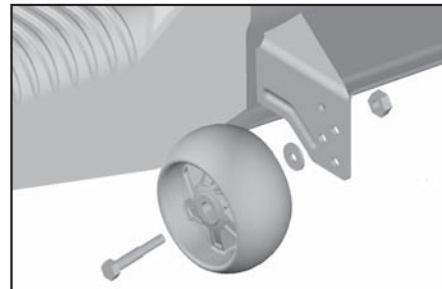


Fig. 9

## 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).

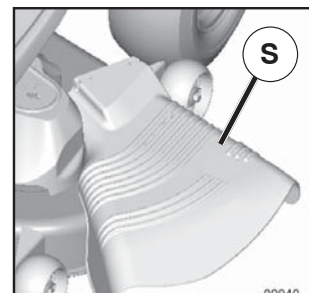


Fig. 10

# OPERATION

## REVERSE OPERATION SYSTEM (ROS)

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.

**⚠WARNING:** 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 (See Fig. 11)

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.
- 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.

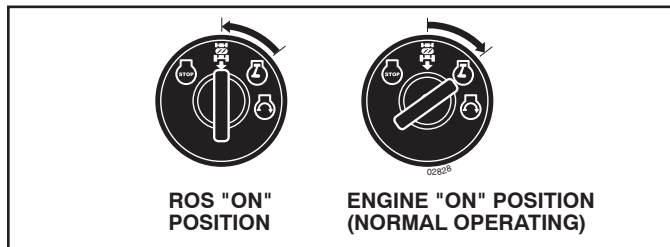
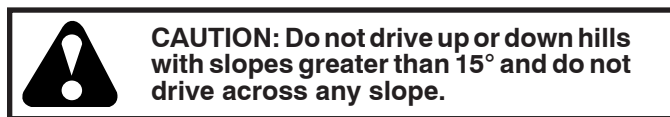


Fig. 11

## TO OPERATE ON HILLS



- 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 Fig. 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.).

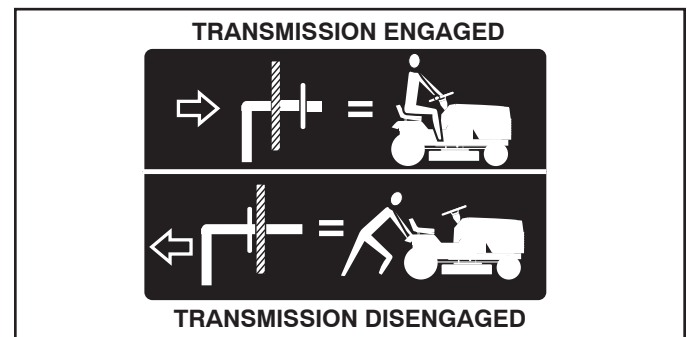


Fig. 12

## 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.

# OPERATION

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

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

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

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

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

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

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

### AUTOMATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - 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 be used during the engine warm-up period after the transmission has been warmed up and may require the choke control be pulled out slightly.

**NOTE:** 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.

# OPERATION

1. Place tractor safely on a level surface - that is clear and open - with engine off and parking brake set.
2. 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.**

4. 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.
5. Shut- off engine and set parking brake.
6. Engage transmission by placing freewheel control in engaged position (See "TO TRANSPORT" in this section of manual).
7. Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. Disengage parking brake.
8. 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).

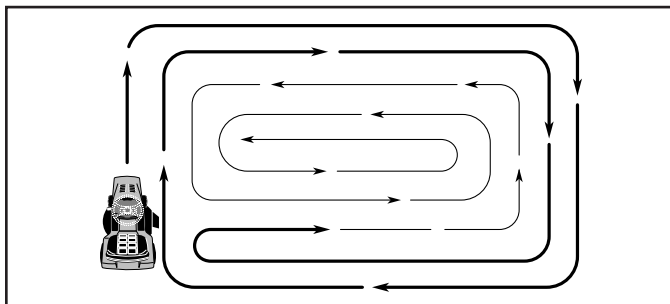


Fig. 13

- 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.

## MULCHING MOWING TIPS

**IMPORTANT:** FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried, yet the newly cut area will not be exposed to direct sunlight.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 14). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.

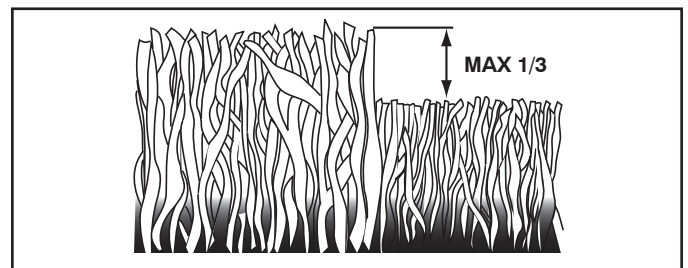


Fig. 14

- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across (perpendicular) to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

# MAINTENANCE

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

1 - Change more often when operating under a heavy load or in high ambient temperatures.  
2 - Service more often when operating in dirty or dusty conditions.

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

5 - See Cleaning in Maintenance Section.

## 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.

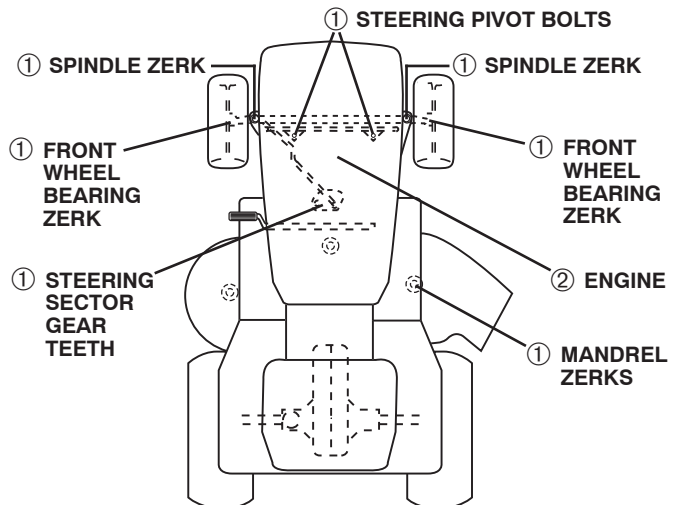
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

- 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



- ① 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.

# MAINTENANCE

## 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. 15)

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.

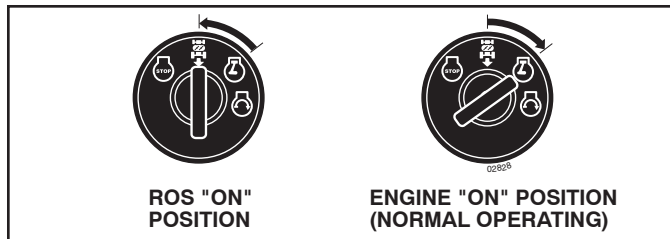


Fig. 15

### 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. 16)

- 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.

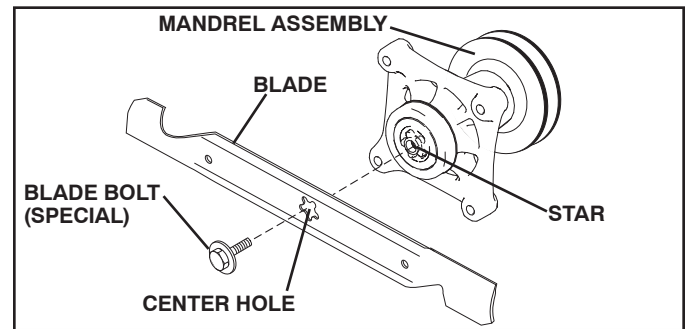


Fig. 16

### 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.

- Remove terminal guard.
- 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.

# MAINTENANCE

## TRANSAXLE MAINTENANCE

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

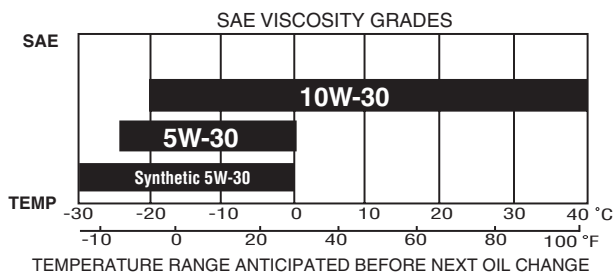
- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

## TRANSAXLE PUMP FLUID

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

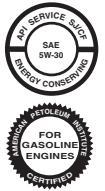
## ENGINE LUBRICATION

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. When operating in temperatures below 0°F (-18°C) synthetic oil must be used.



**\* CAUTION:** Air cooled engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W30, 10W30 etc.) in temperatures above 40°F (4°C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.

**\*\* CAUTION:** SAE 30 oil, if used below 40°F (4°C), will result in hard starting and possible engine bore damage due to inadequate lubrication.



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

Change the oil after every 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 Fig. 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.
- Remove yellow cap from end of drain valve and install the drain tube onto the fitting.
- Unlock drain valve by pushing inward and turning counterclockwise.
- To open, pull out on the drain valve.
- After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
- Remove the drain tube and replace the cap onto to the bottom fitting of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

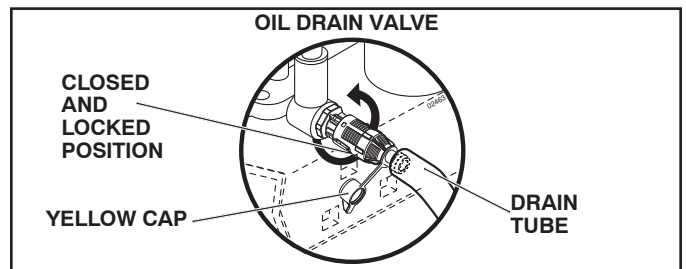


Fig. 17

## ENGINE OIL FILTER

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

## AIR FILTER

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

## CLEAN AIR SCREEN

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

## ENGINE COOLING SYSTEM

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.



# MAINTENANCE

## 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.

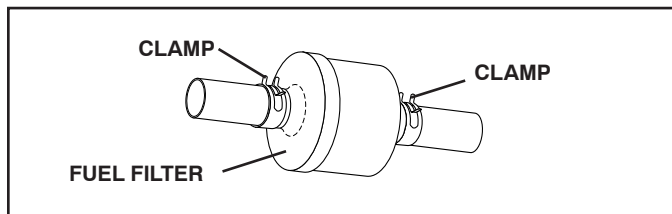


Fig. 18

## 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.

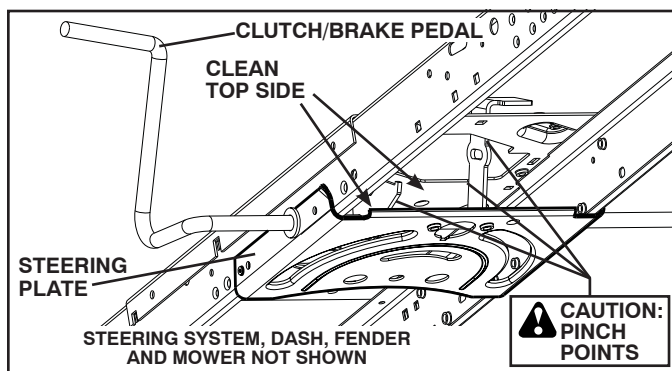


Fig. 19

- 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.

2. Make sure the attachment clutch control is in the "DISENGAGED" position, set the parking brake, and stop the engine.
3. 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.

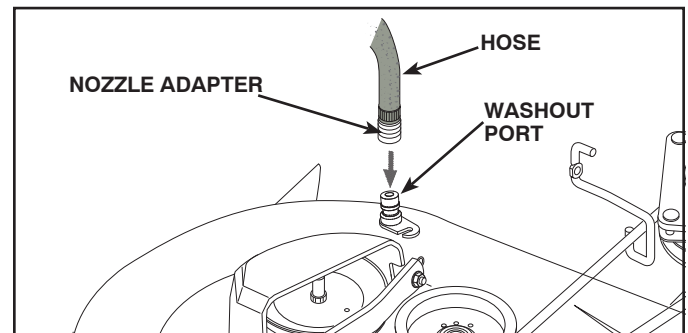


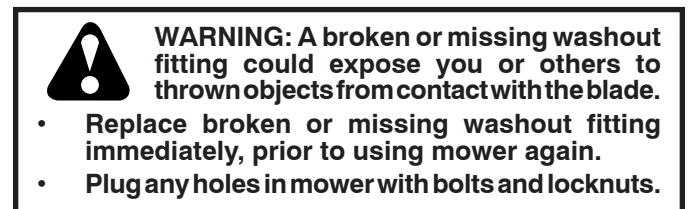
Fig. 20

**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 "F" position.

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

7. 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.
8. 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.
9. 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.



# SERVICE AND ADJUSTMENTS



**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.
- Remove mower belt from electric clutch pulley (M).
- 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 and rear lift link (C) from rear mower bracket (D) - remove retainer springs and washers.
- Go to other side of mower and disconnect the suspension arm and rear lift link.



**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.

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

Ensure tractor is on level surface and engage parking brake.

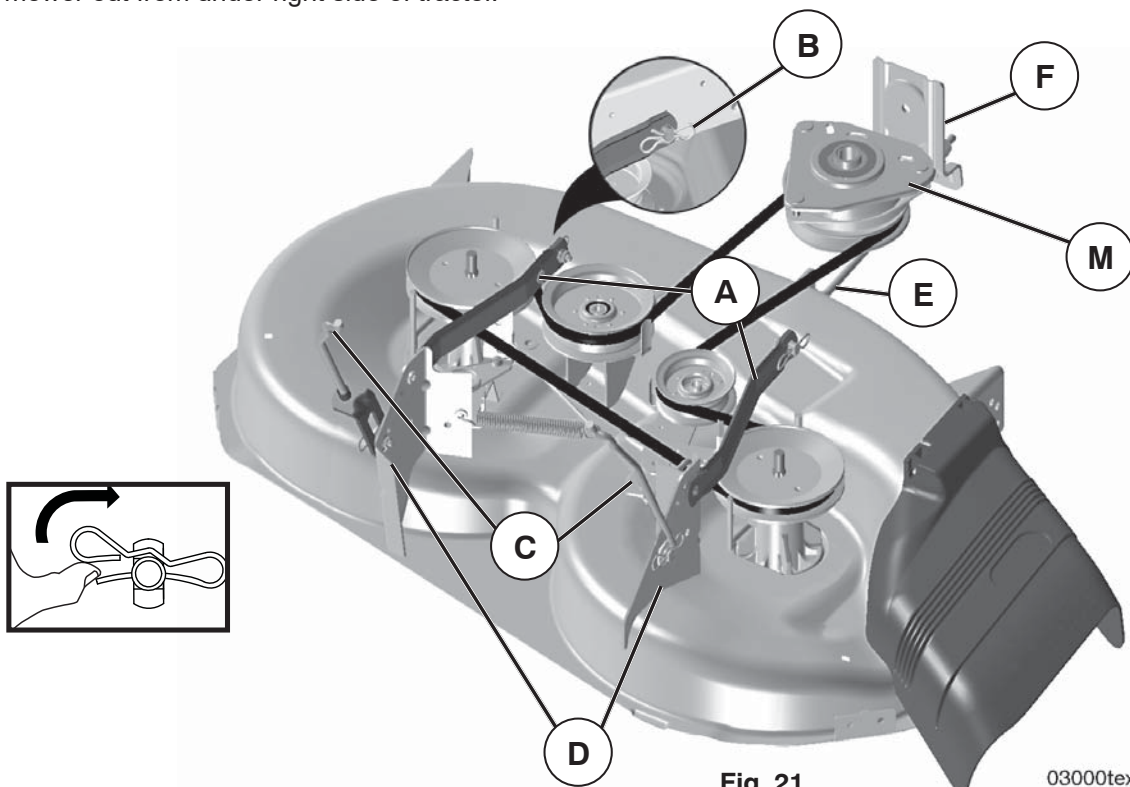
- Lower attachment lift lever to its lowest position.



**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.



# SERVICE AND ADJUSTMENTS

- 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.

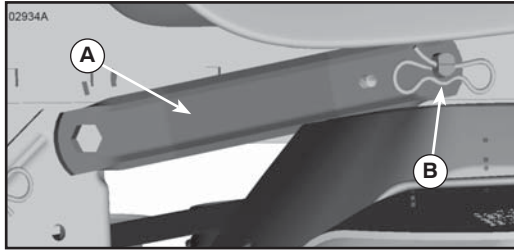


Fig. 22

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

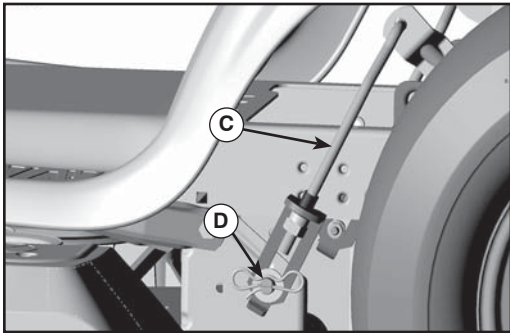


Fig. 23

- 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 (H) and secure with washer and retainer spring (J).

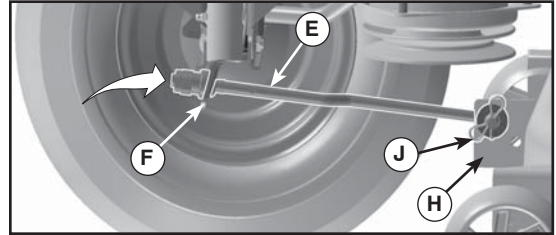


Fig. 24

- Install belt onto electric clutch pulley (M).

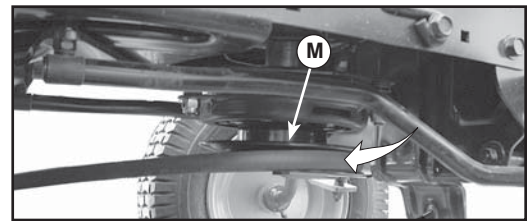


Fig. 25

**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.

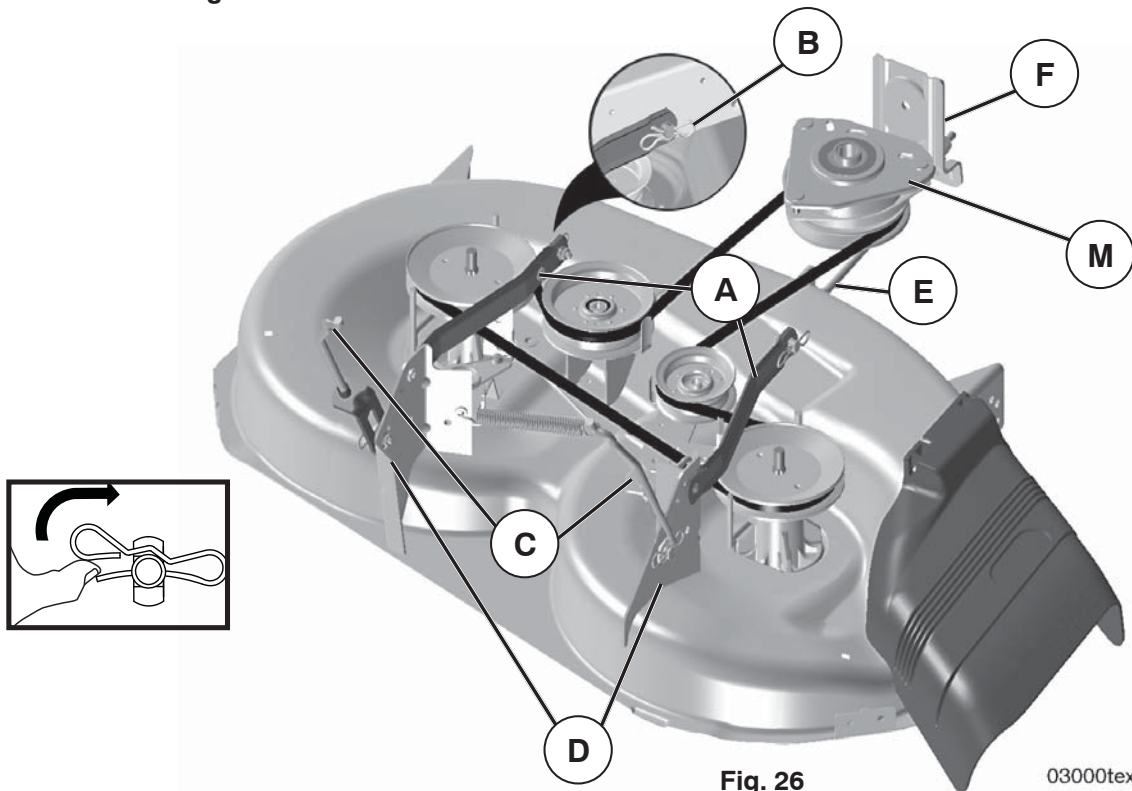


Fig. 26

03000tex

# SERVICE AND ADJUSTMENTS

## 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.

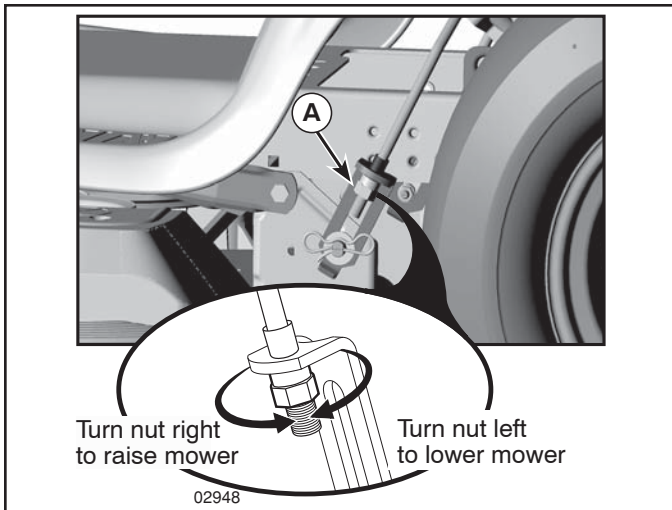


Fig. 27

**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.

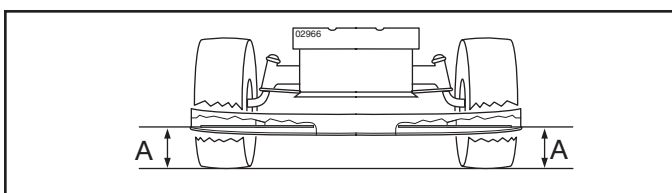


Fig. 28

- 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.

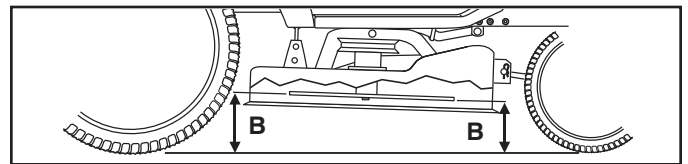


Fig. 29

- 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.

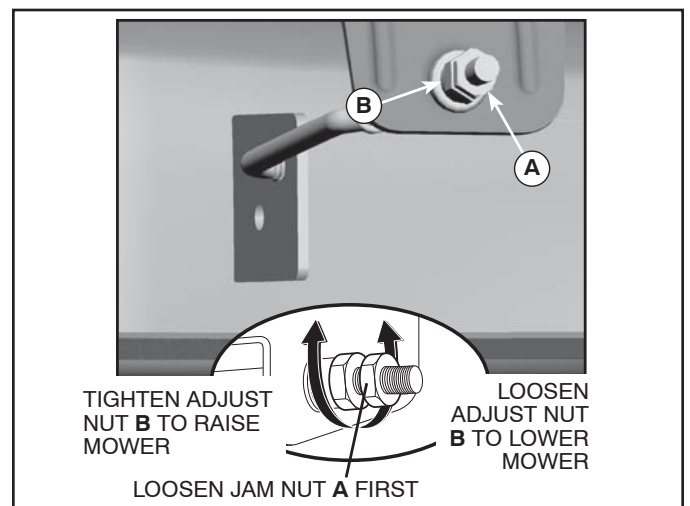


Fig. 30

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

- 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.

# SERVICE AND ADJUSTMENTS

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

### MOWER DRIVE BELT REMOVAL

- Park tractor on a level surface. Engage parking brake.
- Lower attachment lift lever to its lowest position.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Remove belt from electric clutch pulley (M), both mandrel pulleys (R) and all idler pulleys (V).

### MOWER DRIVE BELT INSTALLATION

- Install belt around all mandrel pulleys (R) and around idler pulleys (V) as shown.
- Install belt onto electric clutch pulley (M).

**IMPORTANT:** Check belt for proper routing in all mower pulley grooves.

- Raise attachment lift lever to highest position.

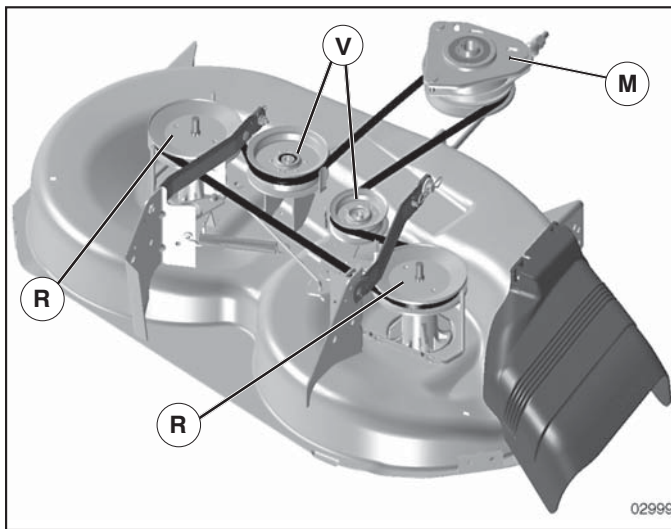


Fig. 31

## 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:

1. Park tractor on a level, dry concrete or paved surface, depress brake pedal all the way down and engage parking brake.
2. 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 -

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

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

2. Disconnect clutch wire harness (A).
3. Remove anti-rotation link (B) on right side of tractor.
4. Remove belt from stationary idler (C) and clutching idler (D).
5. Remove belt from centerspan idler (E).
6. Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades (F).
7. Remove belt downward from engine pulley and around electric clutch (G).
8. Slide belt toward rear of tractor, off the steering plate (H) and remove from tractor.

### BELT INSTALLATION -

1. Install new belt from tractor rear to front, over the steering plate (H) and above clutch brake pedal shaft (J).
2. Pull belt toward front of tractor and roll belt around electric clutch and onto engine pulley (G).
3. Pull belt toward rear of tractor. Carefully work belt down around transmission cooling fan and onto the input pulley (F). Be sure belt is inside the belt keeper.
4. Install belt on centerspan idler (E).
5. Install belt through stationary idler (C) and clutching idler (D).
6. Reinstall anti-rotation link (B) on right side of tractor. Tighten securely.
7. Reconnect clutch harness (A).
8. Make sure belt is in all pulley grooves and inside all belt guides and keepers.
9. Install mower (See "TO INSTALL MOWER" section in this manual).

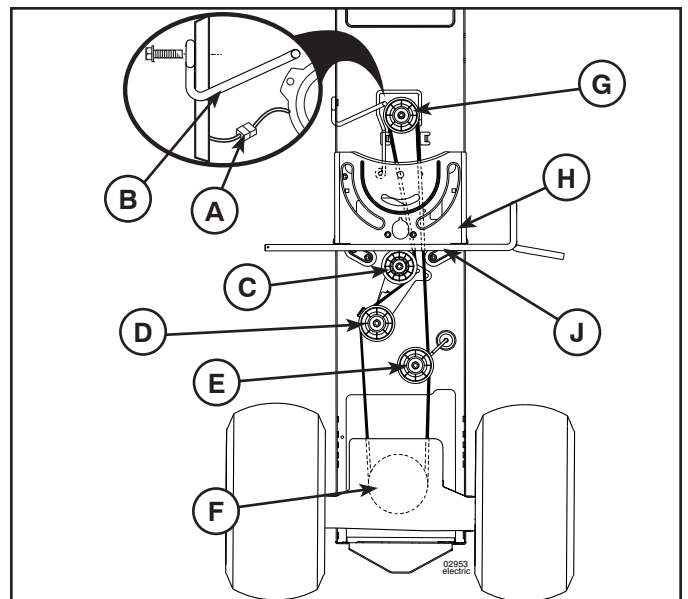


Fig. 32

# SERVICE AND ADJUSTMENTS

## 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.

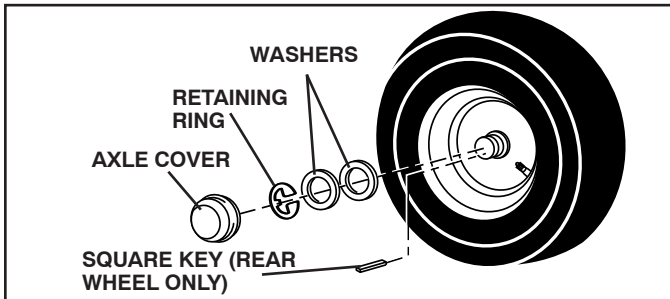


Fig. 33

## 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 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.

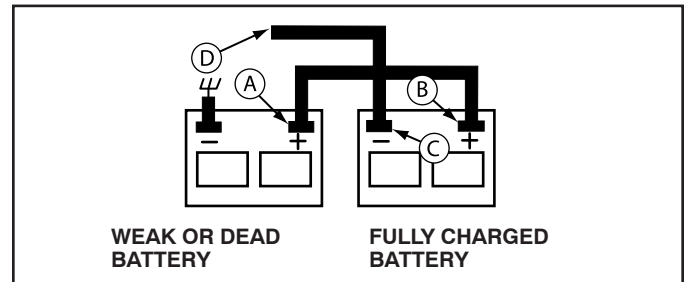


Fig. 34

## 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.

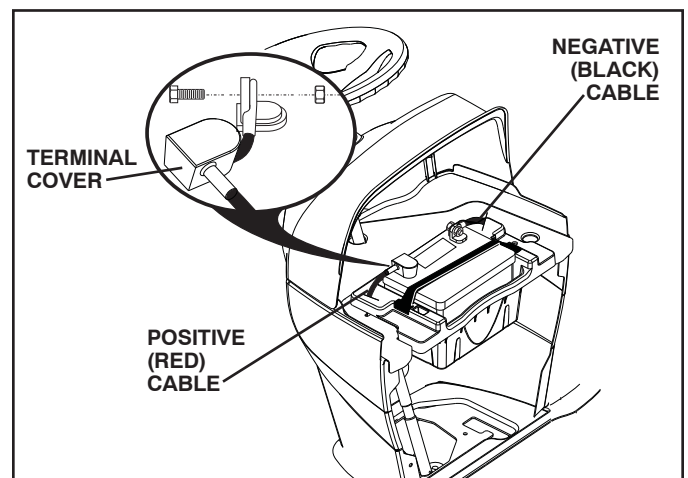


Fig. 35

# SERVICE AND ADJUSTMENTS

## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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

## TO REPLACE HEADLIGHT BULB

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

## 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.

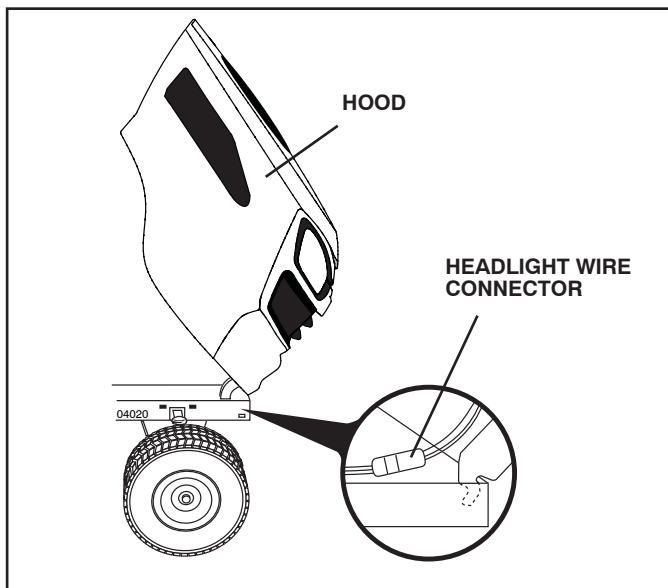


Fig. 36

## TRANSMISSION

### REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" 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 engine 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.

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# STORAGE

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



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

## TRACTOR

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

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

## BATTERY

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

## ENGINE

### FUEL SYSTEM

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

- 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
<b>Will not start</b>	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Engine not "CHOKED" properly.</li> <li>3. Engine flooded.</li> <li>4. Bad spark plug.</li> <li>5. Dirty air filter.</li> <li>6. Dirty fuel filter.</li> <li>7. Water in fuel.</li>   <li>8. Loose or damaged wiring.</li> <li>9. Carburetor out of adjustment.</li>   <li>10. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank.</li> <li>2. See "TO START ENGINE" in Operation section.</li> <li>3. Wait several minutes before attempting to start.</li> <li>4. Replace spark plug.</li> <li>5. Clean/replace air filter.</li> <li>6. Replace fuel filter.</li> <li>7. Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>8. Check all wiring.</li> <li>9. See "To Adjust Carburetor" in Service Adjustments section.</li> <li>10. Contact an authorized service center/department.</li> </ol>
<b>Hard to start</b>	<ol style="list-style-type: none"> <li>1. Dirty air filter.</li> <li>2. Bad spark plug.</li> <li>3. Weak or dead battery.</li> <li>4. Dirty fuel filter.</li> <li>5. Stale or dirty fuel.</li> <li>6. Loose or damaged wiring.</li> <li>7. Carburetor out of adjustment.</li>   <li>8. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean/replace air filter.</li> <li>2. Replace spark plug.</li> <li>3. Recharge or replace battery.</li> <li>4. Replace fuel filter.</li> <li>5. Empty fuel tank and refill tank with fresh, clean gas.</li> <li>6. Check all wiring.</li> <li>7. See "To Adjust Carburetor" in Service Adjustments section.</li> <li>8. Contact an authorized service center/department.</li> </ol>
<b>Engine will not turn over</b>	<ol style="list-style-type: none"> <li>1. Brake pedal not depressed.</li> <li>2. Attachment clutch is engaged.</li> <li>3. Weak or dead battery.</li> <li>4. Blown fuse.</li> <li>5. Corroded battery terminals.</li> <li>6. Loose or damaged wiring.</li> <li>7. Faulty ignition switch.</li> <li>8. Faulty solenoid or starter.</li> <li>9. Faulty operator presence switch(es).</li> </ol>	<ol style="list-style-type: none"> <li>1. Depress brake pedal.</li> <li>2. Disengage attachment clutch.</li> <li>3. Recharge or replace battery.</li> <li>4. Replace fuse.</li> <li>5. Clean battery terminals.</li> <li>6. Check all wiring.</li> <li>7. Check/replace ignition switch.</li> <li>8. Check/replace solenoid or starter.</li> <li>9. Contact an authorized service center/department.</li> </ol>
<b>Engine clicks but will not start</b>	<ol style="list-style-type: none"> <li>1. Weak or dead battery.</li> <li>2. Corroded battery terminals.</li> <li>3. Loose or damaged wiring.</li> <li>4. Faulty solenoid or starter.</li> </ol>	<ol style="list-style-type: none"> <li>1. Recharge or replace battery.</li> <li>2. Clean battery terminals.</li> <li>3. Check all wiring.</li> <li>4. Check/replace solenoid or starter.</li> </ol>
<b>Loss of power</b>	<ol style="list-style-type: none"> <li>1. Cutting too much grass/too fast.</li> <li>2. Throttle in "CHOKE" position.</li> <li>3. Build-up of grass, leaves, trash under mower.</li> <li>4. Dirty air filter.</li> <li>5. Low oil level/dirty oil.</li> <li>6. Faulty spark plug.</li> <li>7. Dirty fuel filter.</li> <li>8. Stale or dirty fuel.</li> <li>9. Water in fuel.</li>   <li>10. Spark plug wire loose.</li> <li>11. Dirty engine air screen/fins.</li> <li>12. Dirty/clogged muffler.</li> <li>13. Loose or damaged wiring.</li> <li>14. Carburetor out of adjustment.</li> <li>15. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Raise cutting height/reduce speed.</li> <li>2. Adjust throttle control.</li> <li>3. Clean underside of mower housing.</li> <li>4. Clean/replace air filter.</li> <li>5. Check oil level/change oil.</li> <li>6. Clean and regap or change spark plug.</li> <li>7. Replace fuel filter.</li> <li>8. Empty fuel tank and refill tank with fresh, clean gas.</li> <li>9. Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>10. Connect and tighten spark plug wire.</li> <li>11. Clean engine air screen/fins.</li> <li>12. Clean/replace muffler.</li> <li>13. Check all wiring.</li> <li>14. See "To Adjust Carburetor" in Service Adjustments section.</li> <li>15. Contact an authorized service center/department.</li> </ol>
<b>Excessive vibration</b>	<ol style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Bent blade mandrel.</li> <li>3. Loose/damaged part(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Replace blade mandrel.</li> <li>3. Tighten loose part(s). Replace damaged parts.</li> </ol>

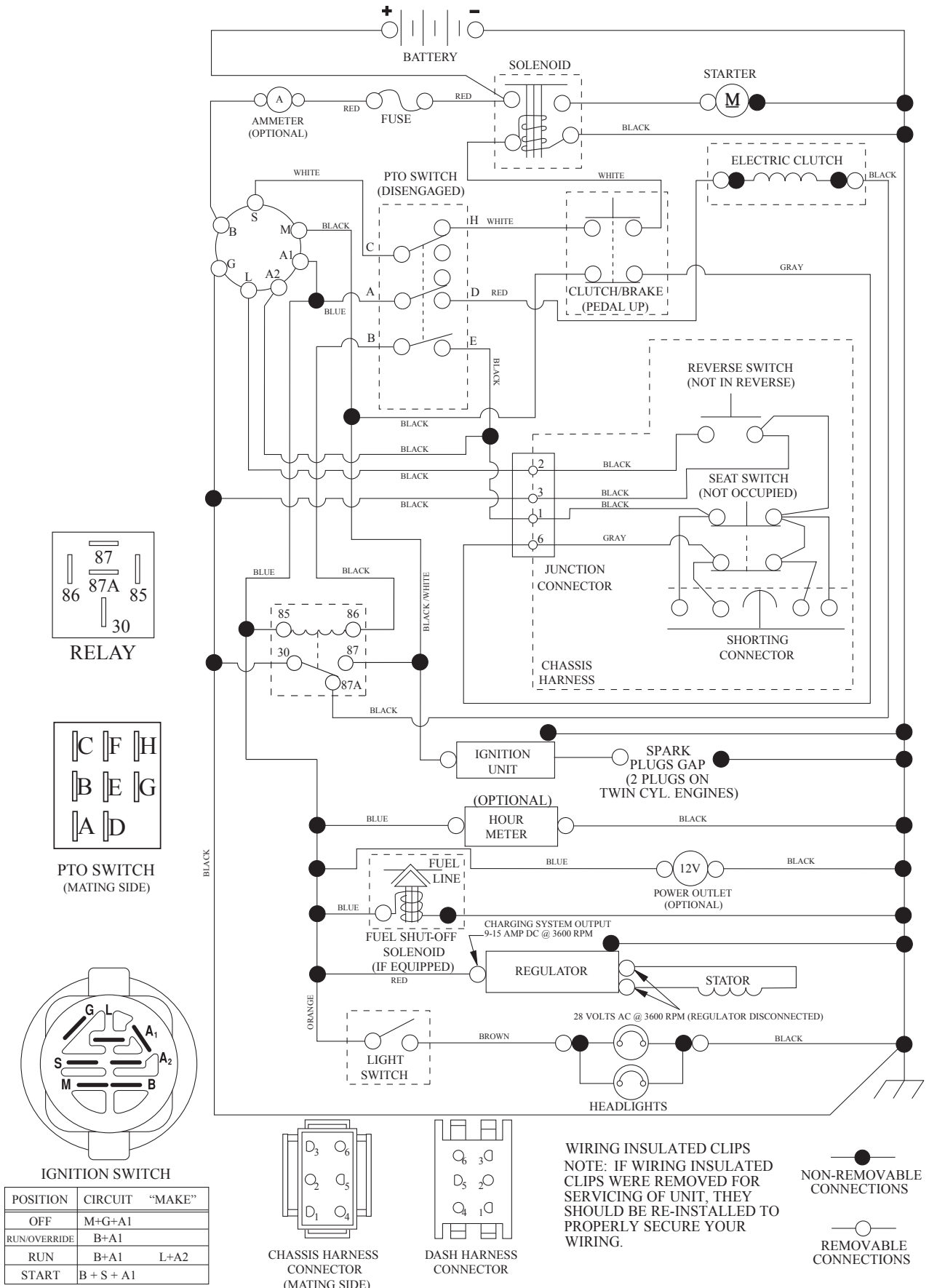
# TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
<b>Engine continues to run when operator leaves seat with attachment clutch engaged</b>	<ol style="list-style-type: none"> <li>1. Faulty operator-safety presence control system.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.</li> </ol>
<b>Poor cut - uneven</b>	<ol style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Mower deck not level.</li> <li>3. Buildup of grass, leaves, trash under mower.</li> <li>4. Bent blade mandrel.</li> <li>5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Level mower deck.</li> <li>3. Clean underside of mower housing.</li> <li>4. Replace blade mandrel.</li> <li>5. Clean around mandrels to open vent holes.</li> </ol>
<b>Mower blades will not rotate</b>	<ol style="list-style-type: none"> <li>1. Obstruction in clutch mechanism.</li> <li>2. Worn/damaged mower drive belt.</li> <li>3. Frozen idler pulley.</li> <li>4. Frozen blade mandrel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove obstruction.</li> <li>2. Replace mower drive belt.</li> <li>3. Replace idler pulley.</li> <li>4. Replace blade mandrel.</li> </ol>
<b>Poor grass discharge</b>	<ol style="list-style-type: none"> <li>1. Engine speed too slow.</li> <li>2. Travel speed too fast.</li> <li>3. Wet grass.</li> <li>4. Mower deck not level.</li> <li>5. Low/uneven tire air pressure.</li> <li>6. Worn, bent or loose blade.</li> <li>7. Buildup of grass, leaves, trash under mower.</li> <li>8. Mower drive belt worn.</li> <li>9. Blades improperly installed.</li> <li>10. Improper blades used.</li> <li>11. Clogged mower deck vent holes from buildup of grass, leaves, trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place throttle control in "FAST" position.</li> <li>2. Shift to slower speed.</li> <li>3. Allow grass to dry before mowing.</li> <li>4. Level mower deck.</li> <li>5. Check tires for proper air pressure.</li> <li>6. Replace blade. Tighten blade bolt.</li> <li>7. Clean underside of mower housing.</li> <li>8. Replace mower drive belt.</li> <li>9. Reinstall blades sharp edge down.</li> <li>10. Replace with blades listed in parts manual.</li> <li>11. Clean around mandrels to open vent holes.</li> </ol>
<b>Headlight(s) not working (if so equipped)</b>	<ol style="list-style-type: none"> <li>1. Switch is "OFF".</li> <li>2. Bulb(s) or lamp(s) burned out.</li> <li>3. Faulty light switch.</li> <li>4. Loose or damaged wiring.</li> <li>5. Blown fuse.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn switch "ON".</li> <li>2. Replace bulb(s) or lamp(s).</li> <li>3. Check/replace light switch.</li> <li>4. Check wiring and connections.</li> <li>5. Replace fuse.</li> </ol>
<b>Battery will not charge</b>	<ol style="list-style-type: none"> <li>1. Bad battery cell(s).</li> <li>2. Poor cable connections.</li> <li>3. Faulty regulator (if so equipped).</li> <li>4. Faulty alternator.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Check/clean all connections.</li> <li>3. Replace regulator.</li> <li>4. Replace alternator.</li> </ol>
<b>Loss of drive</b>	<ol style="list-style-type: none"> <li>1. Freewheel control in "disengaged" position.</li> <li>2. Debris on steering plate (if equipped).</li> <li>3. Motion drive belt worn, damaged, or broken.</li> <li>4. Air trapped in transmission during shipment or servicing.</li> <li>5. Axle key missing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place freewheel control in "engaged" position.</li> <li>2. See "CLEANING" in the maintenance section.</li> <li>3. Replace motion drive belt.</li> <li>4. Purge transmission.</li> <li>5. Install axle key at rear wheel. See "TO REMOVE WHEEL" in the Service and Adjustments section.</li> </ol>
<b>Engine "back-fires" when turning engine "OFF"</b>	<ol style="list-style-type: none"> <li>1. Engine throttle control not set between half and full speed (fast) position before stopping engine.</li> </ol>	<ol style="list-style-type: none"> <li>1. Move throttle control between half and full speed (fast) position before stopping engine.</li> </ol>
<b>Engine dies when tractor is shifted into reverse</b>	<ol style="list-style-type: none"> <li>1. Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn ignition key to ROS "ON" position. See Operation section.</li> </ol>

# TRACTOR - - MODEL NUMBER 944.601280

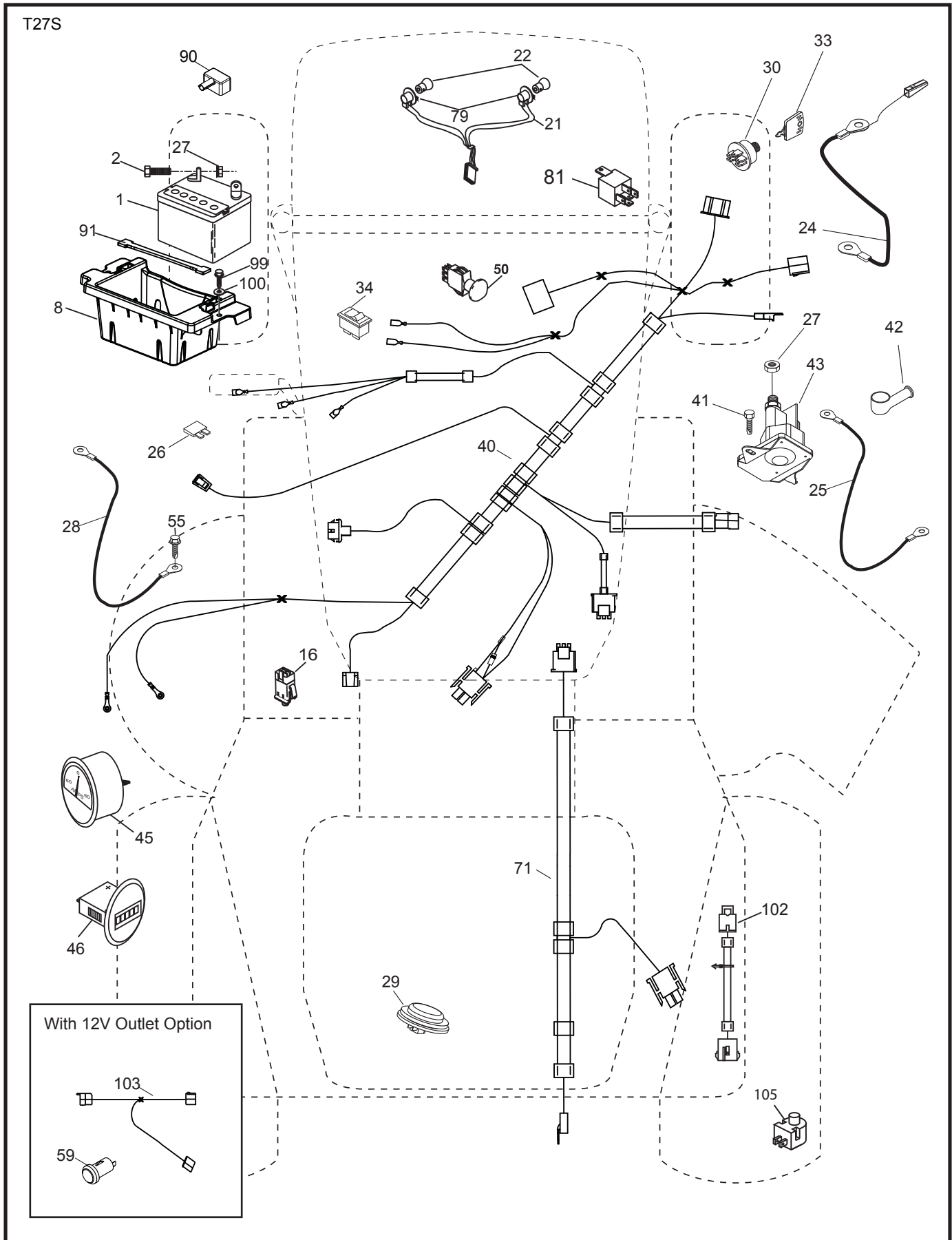
## SCHEMATIC

SCH13



# TRACTOR - - MODEL NUMBER 944.601280

## ELECTRICAL



# TRACTOR - - MODEL NUMBER 944.601280

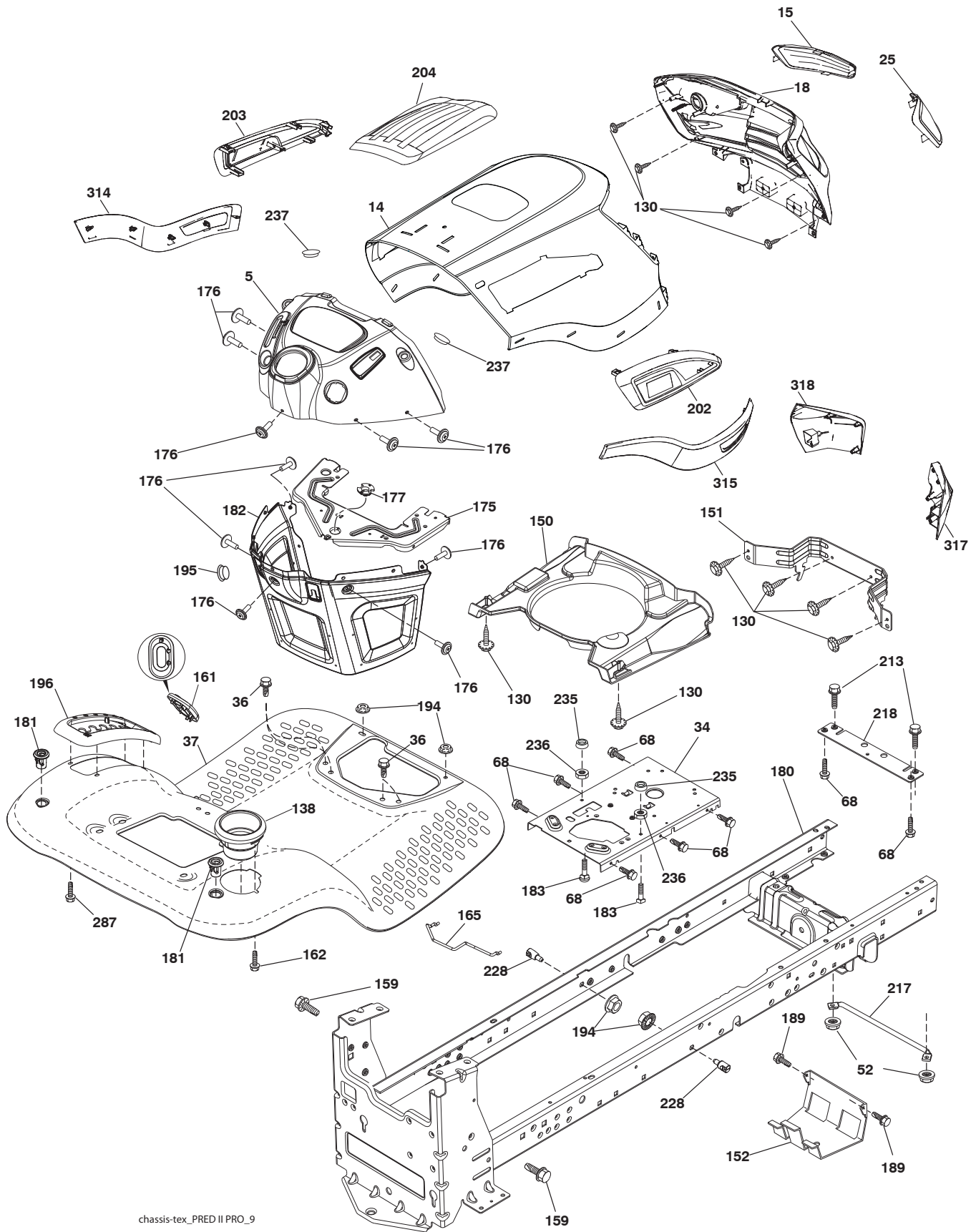
## ELECTRICAL

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	4152J	Bulb Light
24	400253	Cable Btry.
25	412895	Cable Starter
26	175158	Fuse
27	73510400	Nut Keps Hex 1/4-20 unc
28	145491	Cable, Ground
29	401545	Switch, Seat
30	193350	Switch, Ign
33	411934	Key/Chain
34	110712X	Switch Light / Reset
40	402167	Harness Ign. Dash
41	17720408	Screw Thd Cut 1/4-20 x 1/2
42	131563	Cover, Terminal
43	192507	Solenoid
45	422943	Ammeter, Round
46	422944	Gauge SRVCMNDR HRMTR
50	174653	Switch PTO
55	17060512	Screw Thdrol 5/16-18 x 3/4 TYTT
71	194276	Harness Ign. Chassis
79	175242	Bulbholder Asm. Incan Descent
81	409615	Relay Harness
90	435395	Cover Terminal Battery
91	190270	Strap Btry.
99	17670412	Screw Hexwsh Thdrol 1/4-20 x 3/4
100	19091416	Washer 9/32 x 7/8 16 Ga.
102	404454	Harness Pigtail K46
105	407568	Switch Reverse

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

# TRACTOR - - MODEL NUMBER 944.601280

## CHASSIS



chassis-tex\_PRED II PRO\_9

# TRACTOR - - MODEL NUMBER 944.601280

## CHASSIS

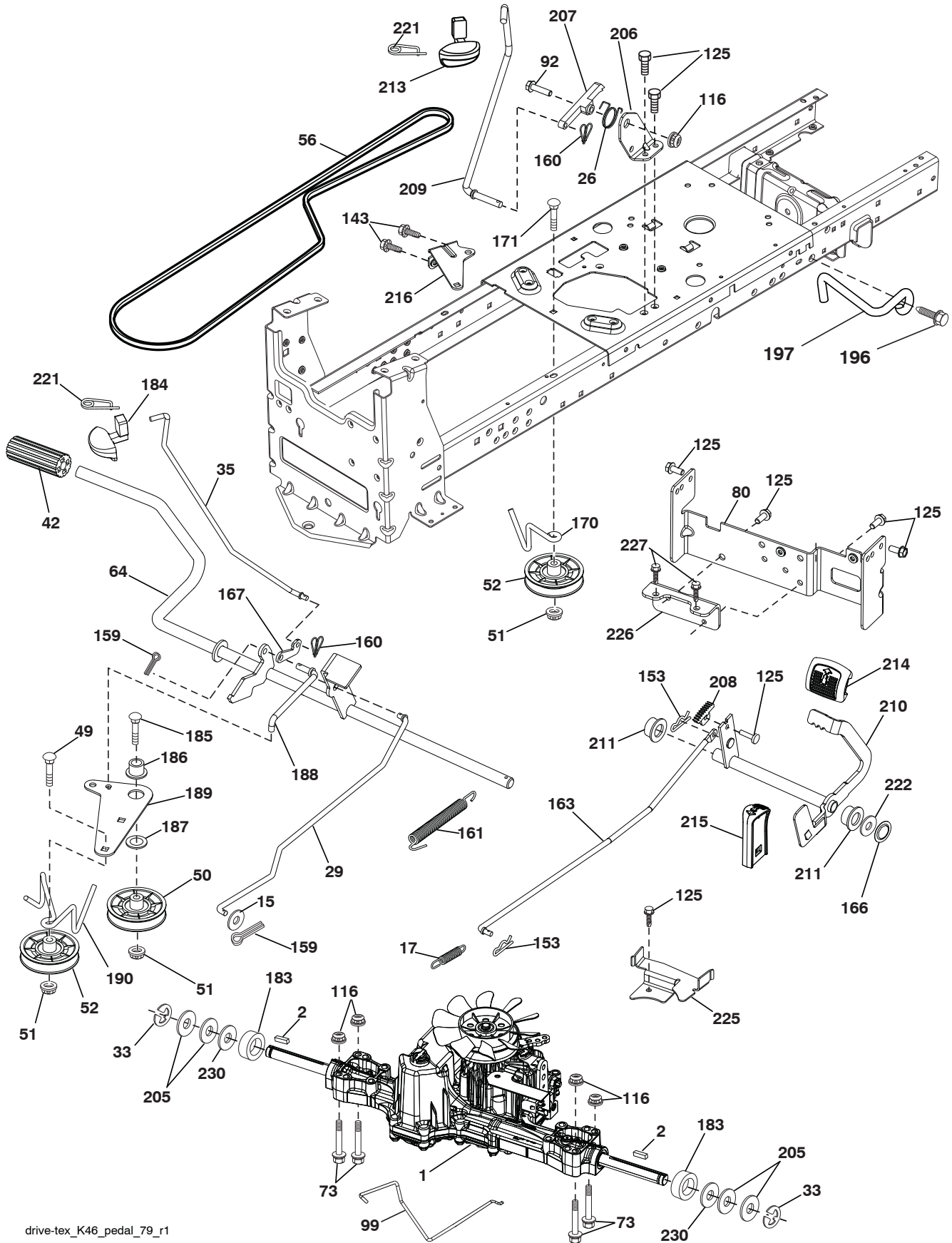
KEY NO.	PART NO.	DESCRIPTION
5	421813X428	Dash
14	421154X428	Hood
15	421493X599	Lens LH
18	423159	Grille
25	421494X599	Lens RH
34	196125	Plate Engine
36	17060512	Screw 5/16-18 x 3/4
37	414878X428	Fender
52	73680500	Nut Crown Lock 5/16-18
68	17490508	Screw Thdrol 5/16-18 x 1/2
130	416358	Screw # 10 x .750 BOS Thread
138	193224X428	Cupholder
150	199411	Duct Heat Hood
151	196332	Bracket Pivot
152	199535	Shield Browning/Debris
159	17000612	Screw Hexwsh Thdrol 3/8-16 x 3/4
161	193229X428	Window Fuel
162	142432	Screw Hex Wsh Hi-Lo 1/4 x 1/2
165	196826	Support Tank Rear
175	196304	Crossmember
176	400776	Screw 10-24 x 5/8 Wshd Qdix
177	195227	Bushing Steering
180	195457	Chassis
181	193102X428	Bushing Mtg. Fender Crgo.
182	406859	Dash Lower

KEY NO.	PART NO.	DESCRIPTION
183	74520520	Bolt Fin Hex 5/16-18 x 1-1/4
189	17000512	Screw 5/16 - 18 x 3/4
194	73900500	Nut Lock Hex Flange 5/16-18
195	401556X428	Plug Hole Dash 12V Adapter
196	414581	Console Asm. Deck Lift
202	442946X428	Vent Side Hood RH
203	442945X428	Vent Side Hood LH
204	421395X428	Vent Assembly
213	74760512	Bolt hex HD 5/16-18 unc x 3/4
217	409167	Rod Pivot Chassis
218	196395	X piece hood stop
228	195161	Stud Fastener
235	406129	Spacer Fender
236	73930500	Nut Center Lock 5/16-18
237	403704	Plug Mount Cargo
287	17600406	Screw Hex Washead 1/4-20 x 3/8
314	441684	Trim SD LH
315	441683	Trim SD RH
317	421257X428	Cap Corner RH
318	421258X428	Cap Corner LH
- -	421264	Kit Brush Guard

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

# TRACTOR - - MODEL NUMBER 944.601280

## DRIVE



drive-tex\_K46\_pedal\_79\_r1



## TRACTOR - - MODEL NUMBER 944.601280

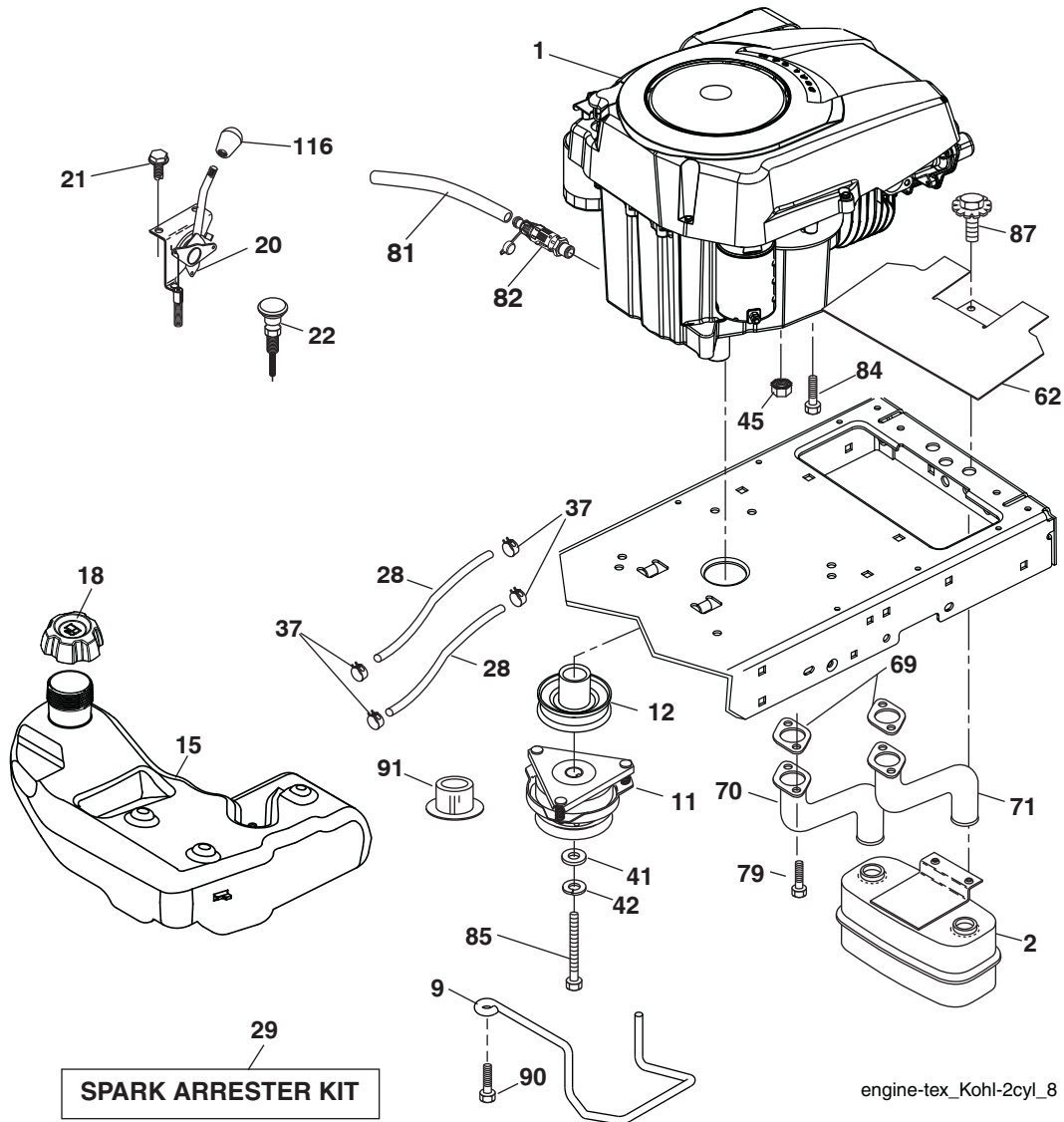
### DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	— — — —	Transaxle, Tufftorq K46BT (426120) (See Transaxle Breakdown)	171	72110616	Bolt 3/8-16 unc
2	123583X	Key	183	137057	Spacer Axle
15	19131316	Washer 13/32 x 13/16 x 16 Ga.	184	196439X667	Handle Parking Brake
17	413678	Spring, Brake	185	72110622	Bolt
26	199679	Spring Return Cruise	186	194321	Spacer Retainer
29	403806	Rod, Brake	187	19133210	Washer
33	12000001	Ring E	188	194323	Link Clutch Ground Drive
35	435486	Rod, Brake, Park	189	194317	Bellcrank Ground Drive
42	8883R	Cover, Foot Pedal	190	194318	Keeper Bellcrank Ground Drive
49	72110614	Bolt	196	17000616	Screw 3/8-16 x 1
50	194327	Pulley Idler Flat	197	195804	Link Clutch Anti-Rotation
51	73900600	Lock Nut 3/8-16	205	121748X	Washer
52	194326	Idler V-Groove 910" Offset	206	197867	Bracket Mount Latch Cruise
56	130969	V-Belt, Drive	207	197868	Latch Control Cruise
64	197865	Shaft Asm. Pedal Brake Control	208	197869	Bolt Sector Control Cruise
73	74490544	Bolt Hex Flghd. 5/16-18 Gr. 5	209	199592	Rod Control Cruise
80	440619	Strap Torque	210	400980	Rocker Asm. Pedal Control
92	74760520	Bolt Fin. Hex 5/16-18 unc x 1.25	211	120183X	Bearing, Nylon
99	415742	Rod Asm. Bypass	213	196441X428	Knob Control Cruise
116	73900500	Nut Lock Hex Flange 5/16-18	214	422106X421	Pad Pedal Forward
125	17000512	Screw 5/16-18 x 3/4	215	197301X428	Pad Pedal Reverse
143	17490508	Screw 5/16-18 x 1/2	216	196131	Bracket Pulley Idler
153	4497H	Retainer Spring	221	403187	Retainer Spring Clip Handle
159	76020412	Pin Cotter 1/8 x 3/4	222	79212010	Washer
160	169484	Retainer Clip	225	403319	Keeper Belt Transaxle
161	105709x	Spring, Return, Clutch	226	401564	Bracket Mount Torque
163	401034	Rod Pedal Control	230	188967	Washer Harden
166	429164	Nut, Push			
167	405257	Latch Brake Parking			
170	194322	Keeper Belt Centerspan			

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

# TRACTOR - - MODEL NUMBER 944.601280

## ENGINE



engine-tex\_Kohl-2cyl\_8

KEY NO.	PART NO.	DESCRIPTION
1	---	Engine Kohler Model No. SV725 -3025 (442195) (See Engine Breakdown)
2	149723	Muffler
9	194320	Keeper Belt Engine
11	400008	Clutch Electric
12	405097	Pulley Engine
15	438080	Tank Fuel 3.0
18	430214	Cap Asm Fuel
20	426184	Control Throttle
21	416358	Screw 10 x .750 BOS Thread
22	187767X421	Control Choke
28	401135	Fuel Line
29	137180	Spark Arrester Kit
37	123487X	Clamp Hose
41	126197X	Washer 1-1/2 OD x 15/32 ID x .250
42	10040700	Washer Lock 7/16
45	73510400	Nut Keps Hex 1/4-20 unc
62	434017	Shield Heat Muffler

KEY NO.	PART NO.	DESCRIPTION
69	---	Gasket (Order from Eng. Mfgr. 24-041-49)
70	146699	Tube Exhaust LH
71	146700	Tube Exhaust RH
79	192334	Screw 5/16-18 x 3/4
81	148456	Tube Drain Oil Easy
82	428287	Valve Drain Oil
84	17120616	Screw 3/8-16 x 1
85	173937	Bolt Hex 7/16-20 x 3.75 Gr. 5
87	171877	Bolt 5/16-18 unc x 1 w/Sems
90	17000616	Screw 3/8-16 x 1
91	187495	Bushing
116	423109X421	Knob Oval Tapered 3/8-16

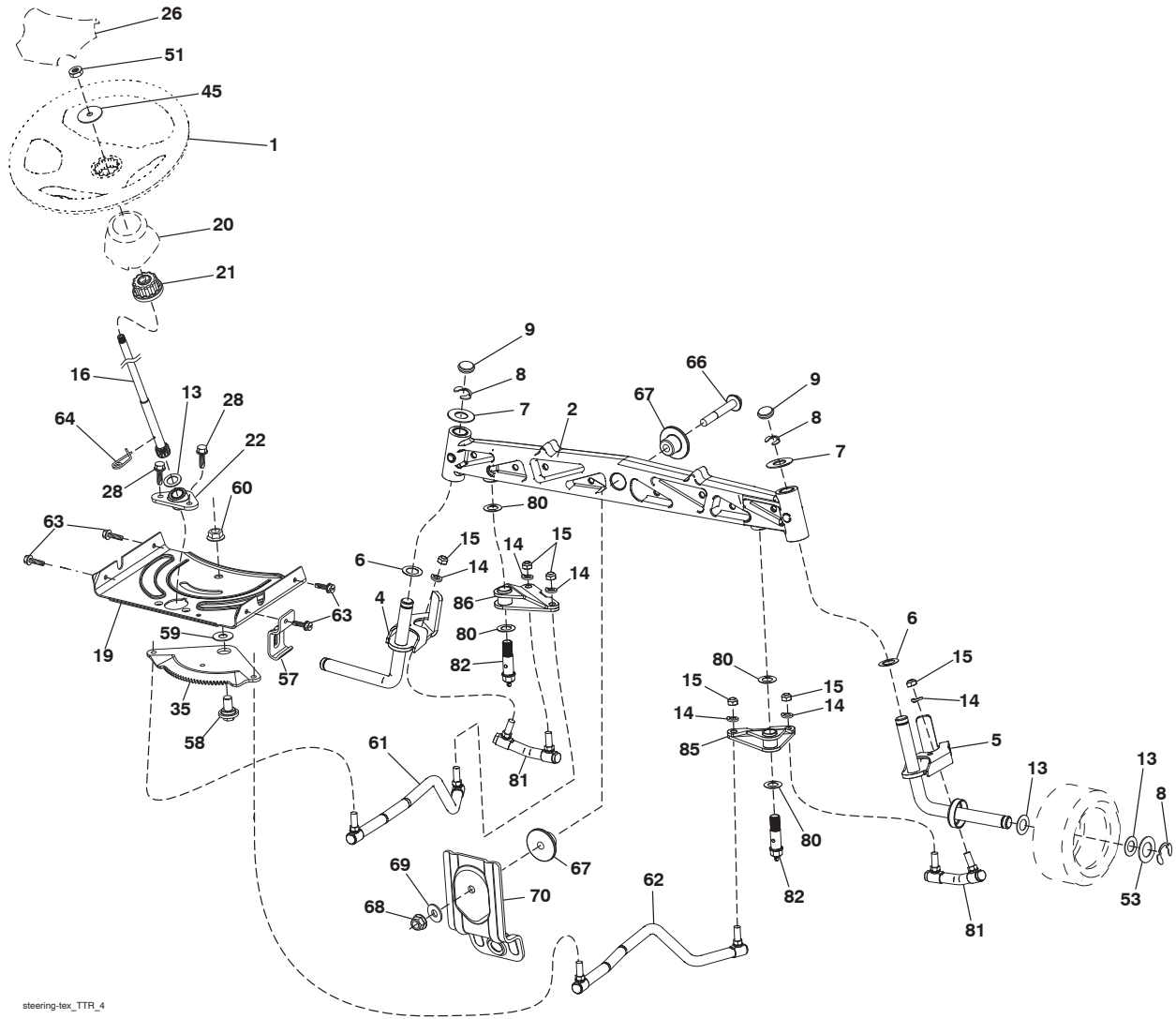
**NOTE:** All component dimensions given in U.S. inches  
1 inch = 25.4 mm

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

Kohler Co. 1-800-544-2444

# TRACTOR - - MODEL NUMBER 944.601280

## STEERING ASSEMBLY



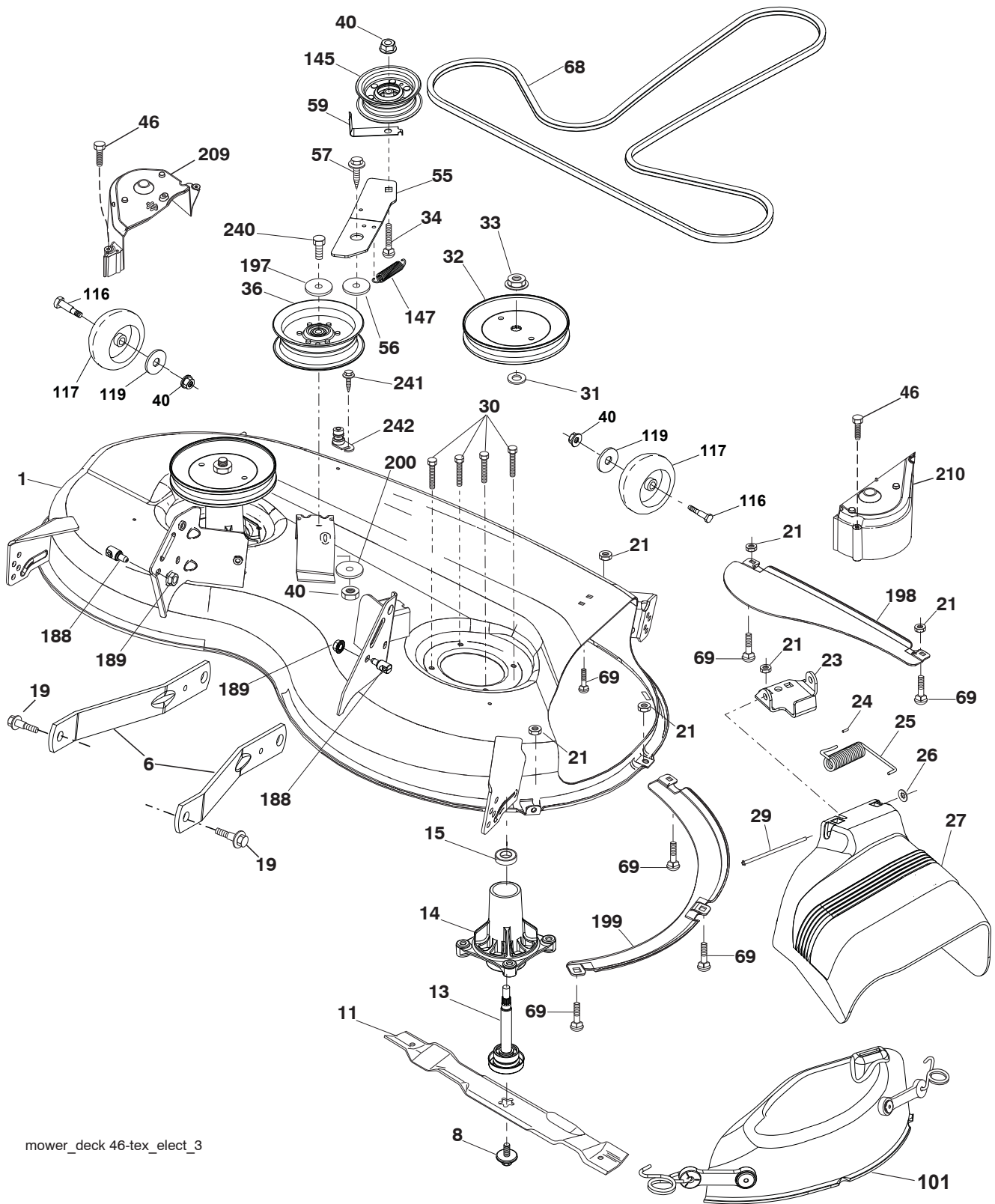
steering-lex\_TTR\_4

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	414851X421	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, Clip #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	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	414852X421	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			
51	73940800	Nut Hex Jam Toplock 1/2-20 unf			
53	188967	WasherHardened.793x1.637x.060			

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

# TRACTOR - - MODEL NUMBER 944.601280

## MOWER DECK



mower\_deck 46-tex\_elect\_3

# TRACTOR - - MODEL NUMBER 944.601280

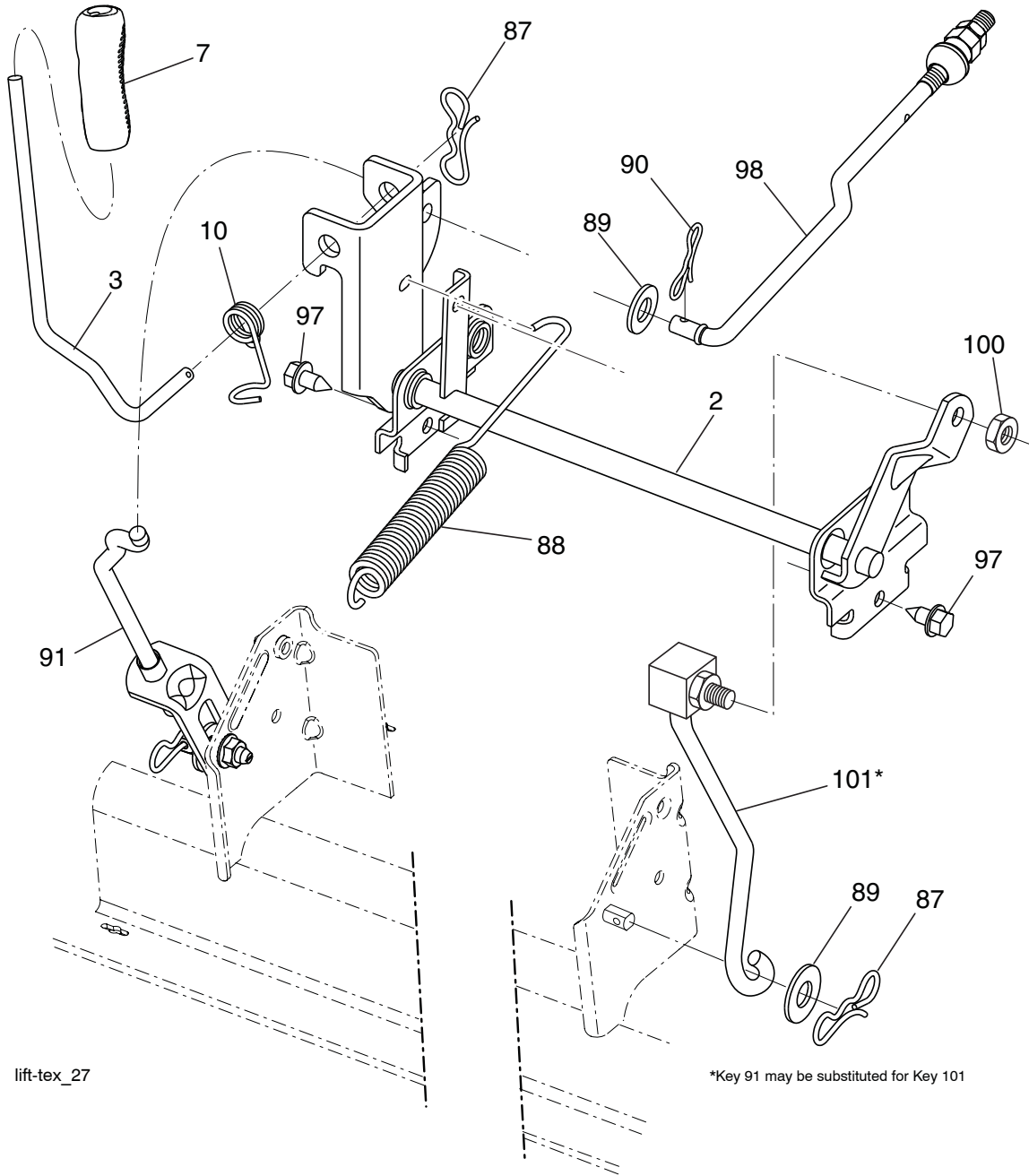
## MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	441623X421	Mower Housing	69	72140505	Bolt
6	195186	Arm Suspension	101	406581	Cover Mulch 46"
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	119	19121414	Washer 13/32 x 1-1/4 x 12 Ga.
14	187281	Housing, Mandrel	145	193197	Pulley Idler
15	110485X	Bearing, Ball, Mandrel	147	197251	Spring Mower Drive
19	196539	Bolt, Shoulder	188	195161	Stud Fastener
21	73680500	Nut	189	73900500	Nut Lock Hex Flange
23	192557	Bracket, Deflector	197	19131312	Washer 13/32 x 13/16 x 12 Ga.
24	105304X	Cap, Sleeve	198	403149	Baffle Center Front
25	197026	Spring, Torsion, Deflector	199	403150	Baffle Front RH
26	110452X	Nut, Push	200	413524	Washer 13/32 x 1 x 1/2 x 11 Ga.
27	405357	Shield, Deflector	209	405507	Guard Cover Mandrel LH
29	131491	Rod, Hinge	210	405506	Guard Cover Mandrel RH
30	173984	Screw Thdrol. Rolling Wsh. Hd.	240	74520636	Bolt Fin. Hex 3/8-16 x 2-1/4 Gr. 5
31	187690	Washer, Spacer	241	152927	Screw
32	197473	Pulley, Mandrel	242	415598	Port Washout
33	400234	Nut, Toplock, Flanged	--	416405	Coupling Connect
34	72110612	Bolt Carr. Sh. 3/8-16 x 1-1/2 Gr. 5	--	192870	Mandrel Assembly (Includes housing, shaft assembly, and bearing only - pulley/nut/washer and blade bolt/washers not included)
36	197379	Pulley, Idler, Flat	--	443027	Replacement Mower, Complete
40	73900600	Nut, Lock Flg. 3/8-16 unc			
46	137729	Screw 1/4-20 x 5/8			
55	197249	Arm, Idler			
56	199092	Spacer, Retainer			
57	17000616	Screw Hex Wsh. Thd. 3/8-16 x 1			
59	141043	Guard, Tuv. Idler (94)			
68	405143	V-Belt Drive			

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

# TRACTOR - - MODEL NUMBER 944.601280

## MOWER LIFT



lift-tex\_27

\*Key 91 may be substituted for Key 101

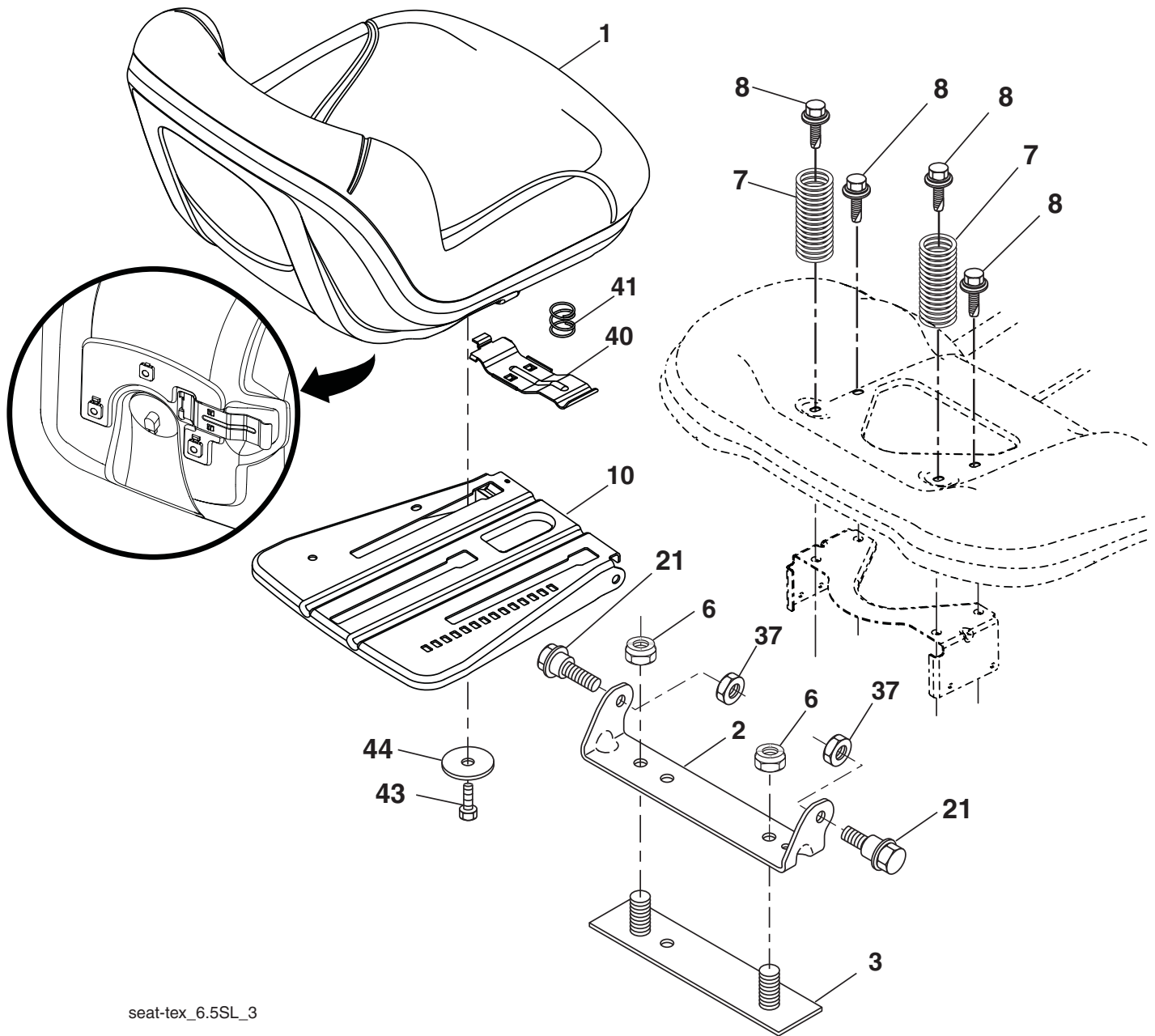
KEY NO.	PART NO.	DESCRIPTION
2	422027	Shaft Asm., Lift
3	195231	Lever Asm., Lift RH
7	196492X421	Grip, Lever
10	196314	Spring Torsion
87	194209	Pin Cotter 7/16 Bow Tie Lock
88	410710	Spring Lift Assist
89	19191912	Washer Clear Zinc
90	194208	Pin Cotter 5/16 Bow Tie Lock

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

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

# TRACTOR - - MODEL NUMBER 944.601280

## SEAT ASSEMBLY



seat-tex\_6.5SL\_3

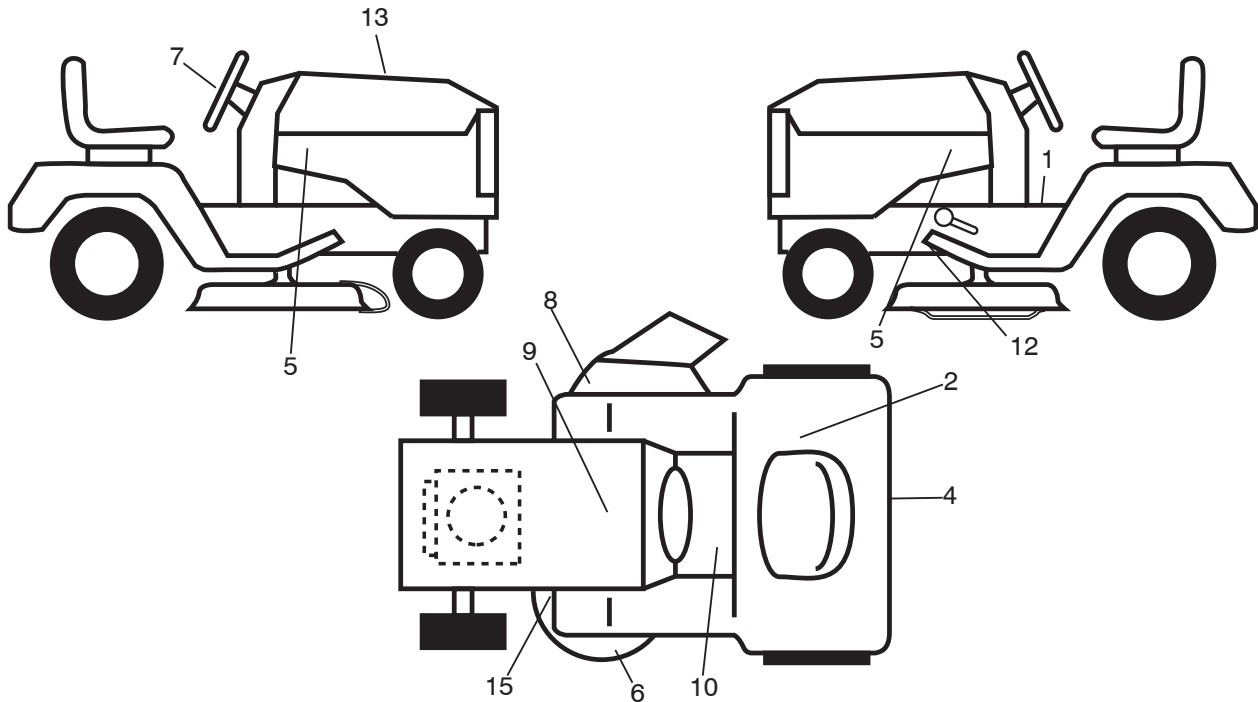
KEY NO.	PART NO.	DESCRIPTION
1	423647	Seat
2	180166	Bracket Pivot Fender
3	140675	Strap, Asm Fender
6	73800600	Nut, Lock W/Ins. 3/8-16 unc
7	124181X	Spring, Seat Cprsn
8	171877	Bolt 5/16-18 unc x 3/4 w/Sems
10	196977	Pan, Seat
21	171852	Bolt, Shoulder 5/16-18

KEY NO.	PART NO.	DESCRIPTION
37	73800500	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.

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

# TRACTOR - - MODEL NUMBER 944.601280

## DECALS

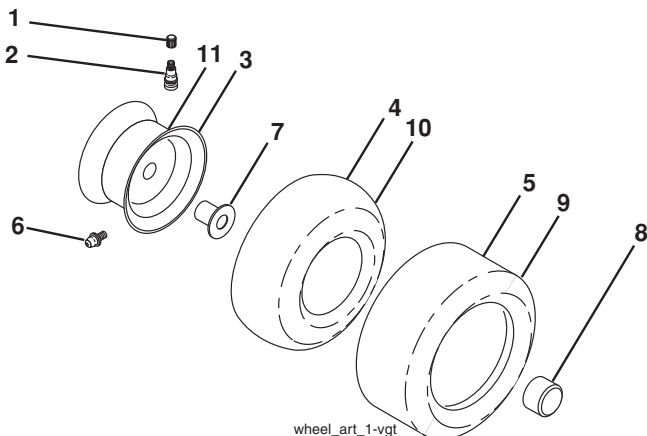


KEY PART NO.	PART NO.	DESCRIPTION
1	435286	Decal, Warning
2	442517	Label EPA
4	441122	Decal, Fender
5	441124	Decal, Hood
6	170563	Decal, Mower
7	419122	Decal, Steering
8	160396	Decal, V-Belt
9	149517	Decal, Battery Warning
10	411658	Decal, Fender
12	421534	Decal, Mower V-Belt Schematic
13	442258	Decal Replacement

KEY PART NO.	PART NO.	DESCRIPTION
15	426593	Decal, MWR
--	166960	Decal Bypass
--	400981X428	Pad Footrest RH
--	193226X428	Pad Footrest LH
--	442276	Manual, Owner's (English)
--	442277	Manual, Owner's (French)

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

## WHEELS AND TIRES



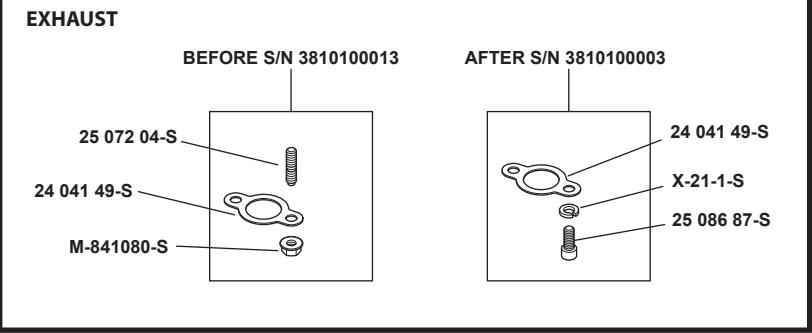
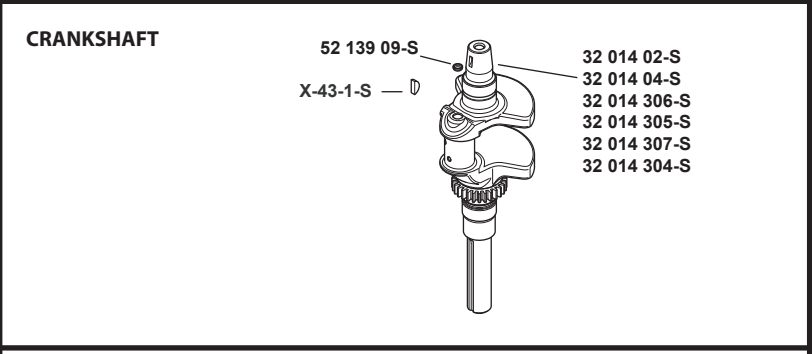
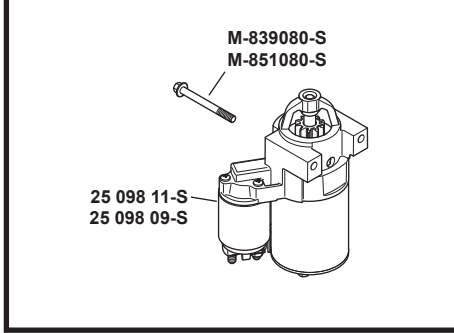
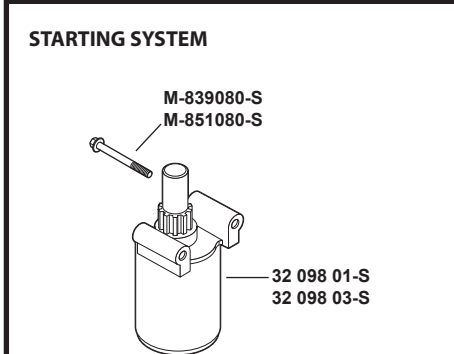
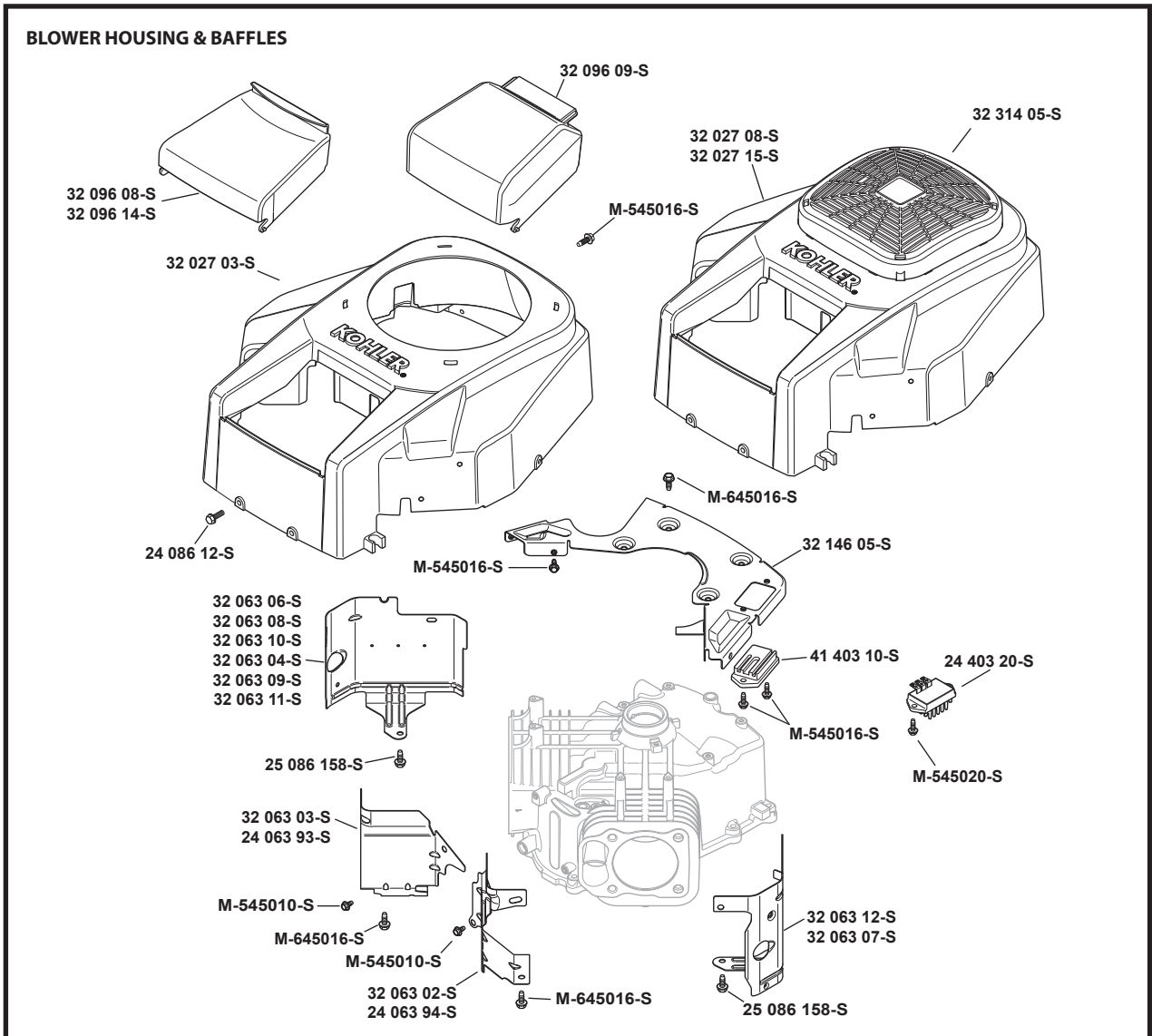
KEY PART NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106732X613	Rim Assembly, Front
4	59904	Tube, Front (Service Item Only)
5	106222X	Tire, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	104757X428	Cap, Axle (Front Wheel Only)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

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



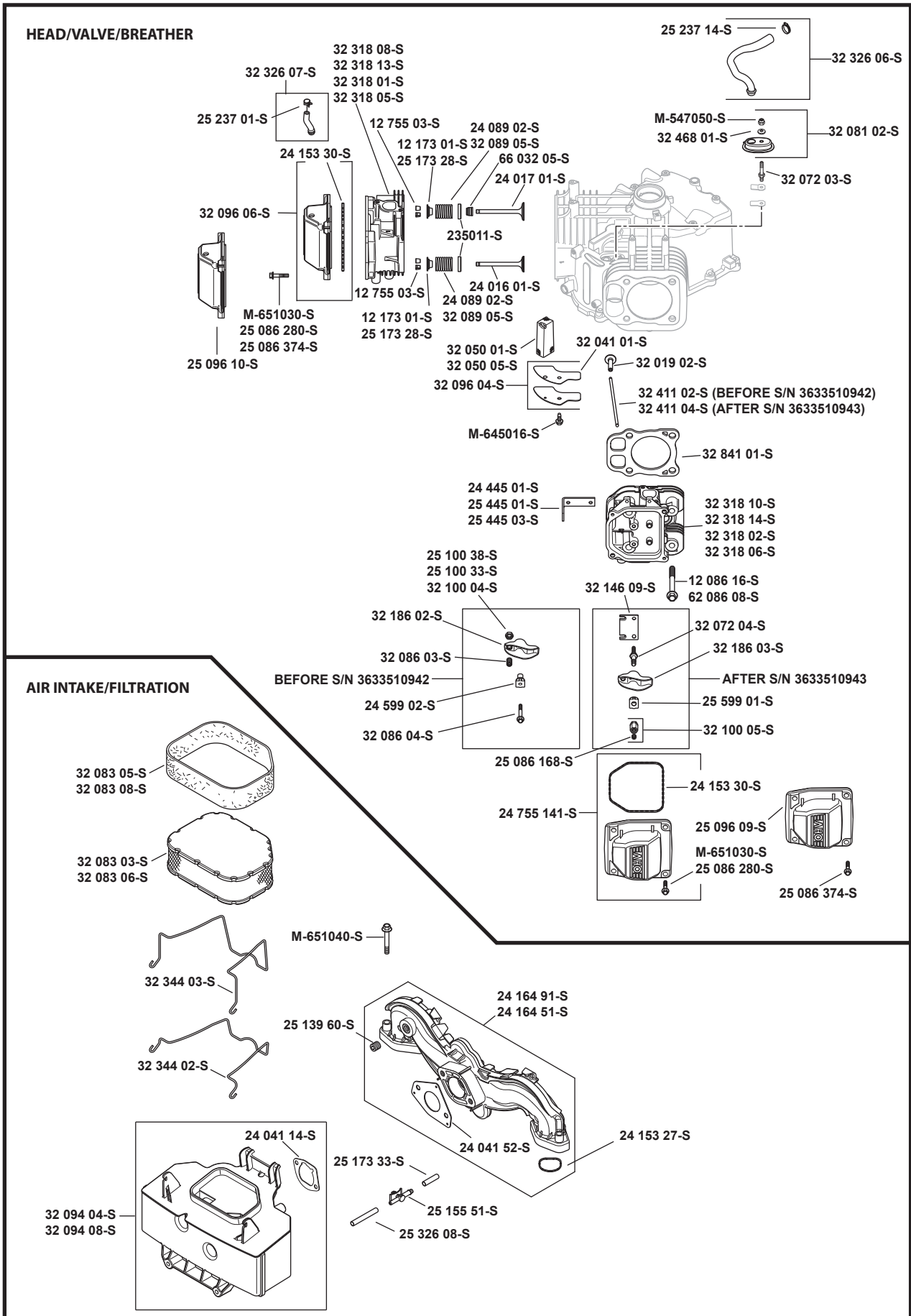
# TRACTOR - - MODEL NUMBER 944.601280

## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025



# TRACTOR - - MODEL NUMBER 944.601280

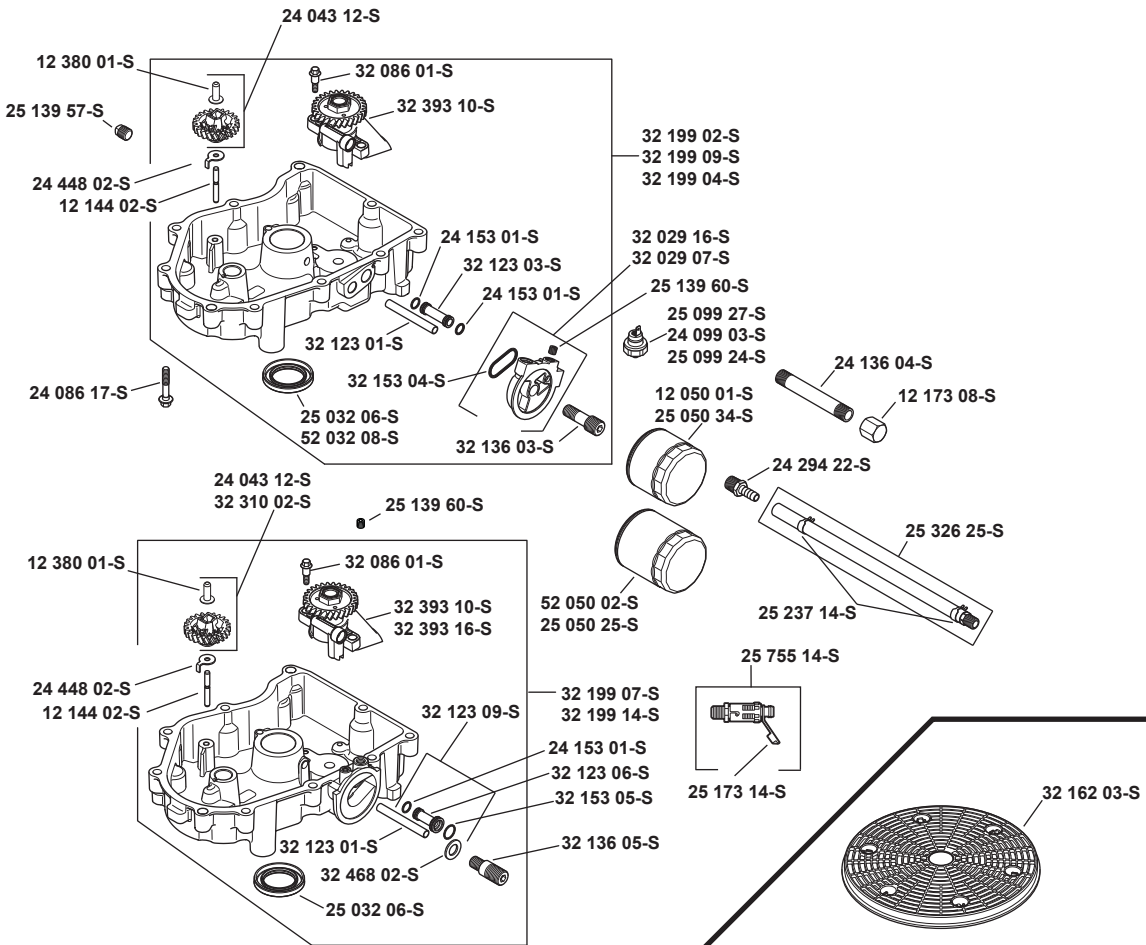
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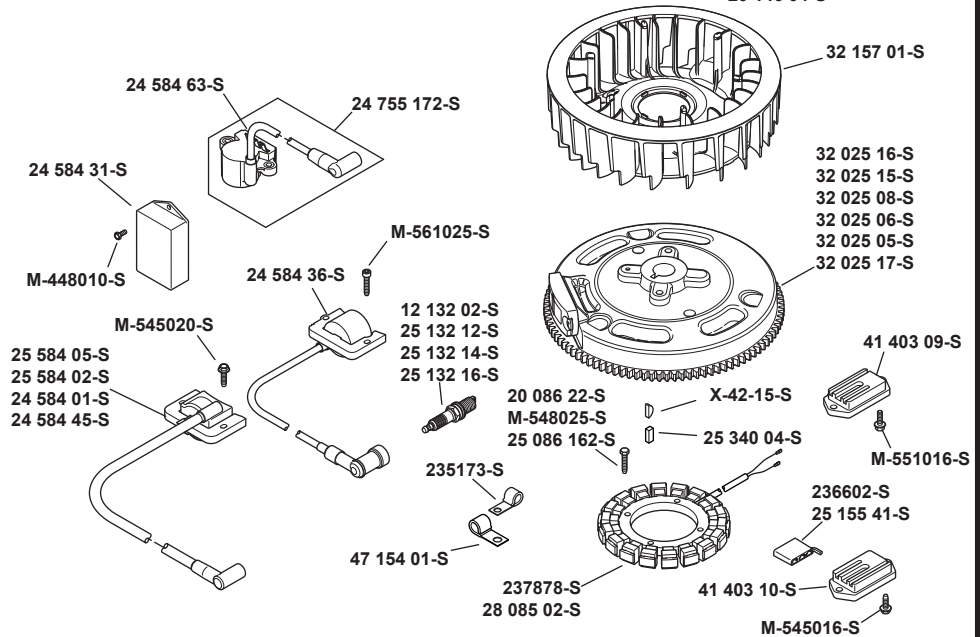
# TRACTOR - - MODEL NUMBER 944.601280

## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025

### OIL PAN/LUBRICATION

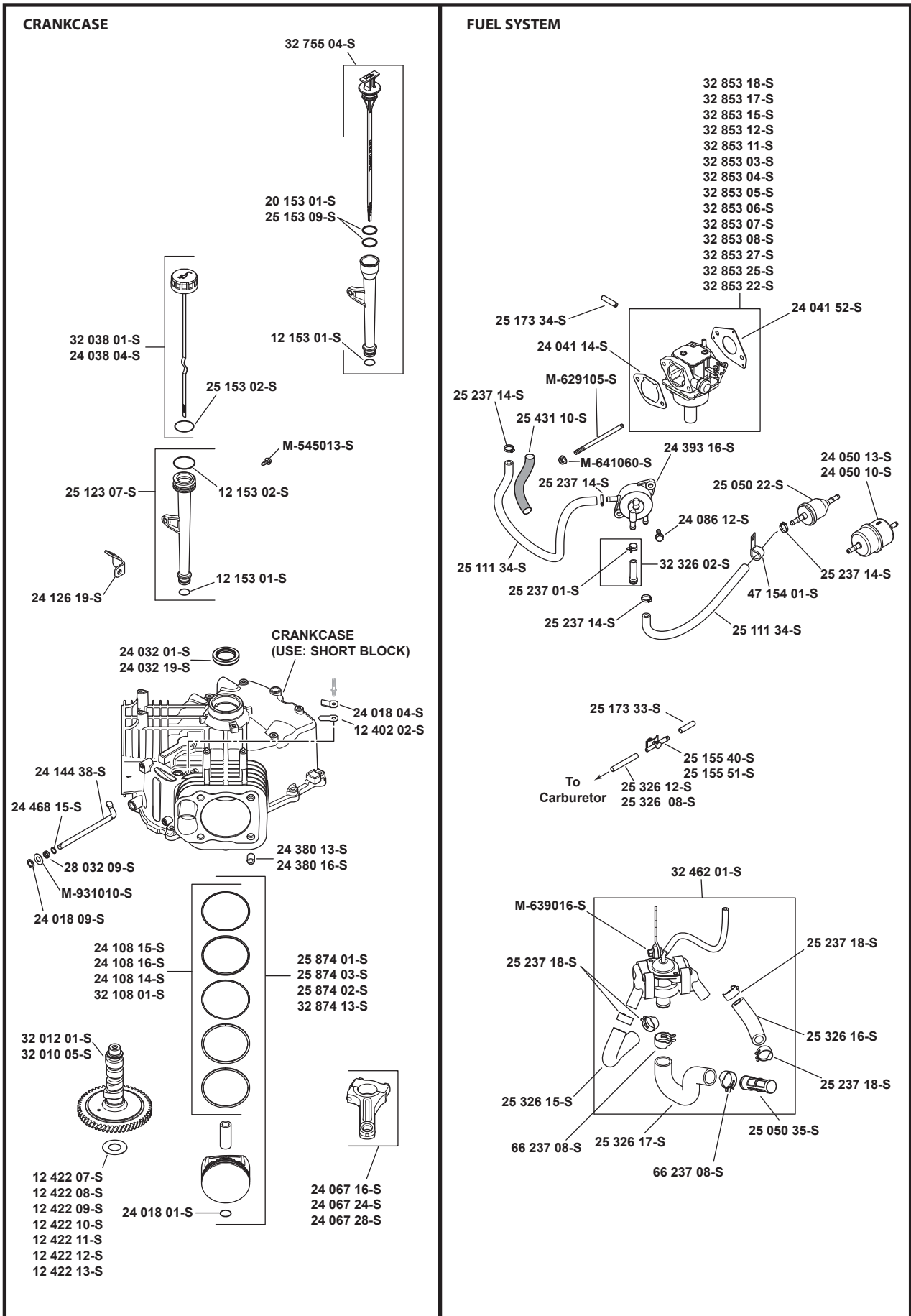


### IGNITION/ELECTRICAL



# TRACTOR - - MODEL NUMBER 944.601280

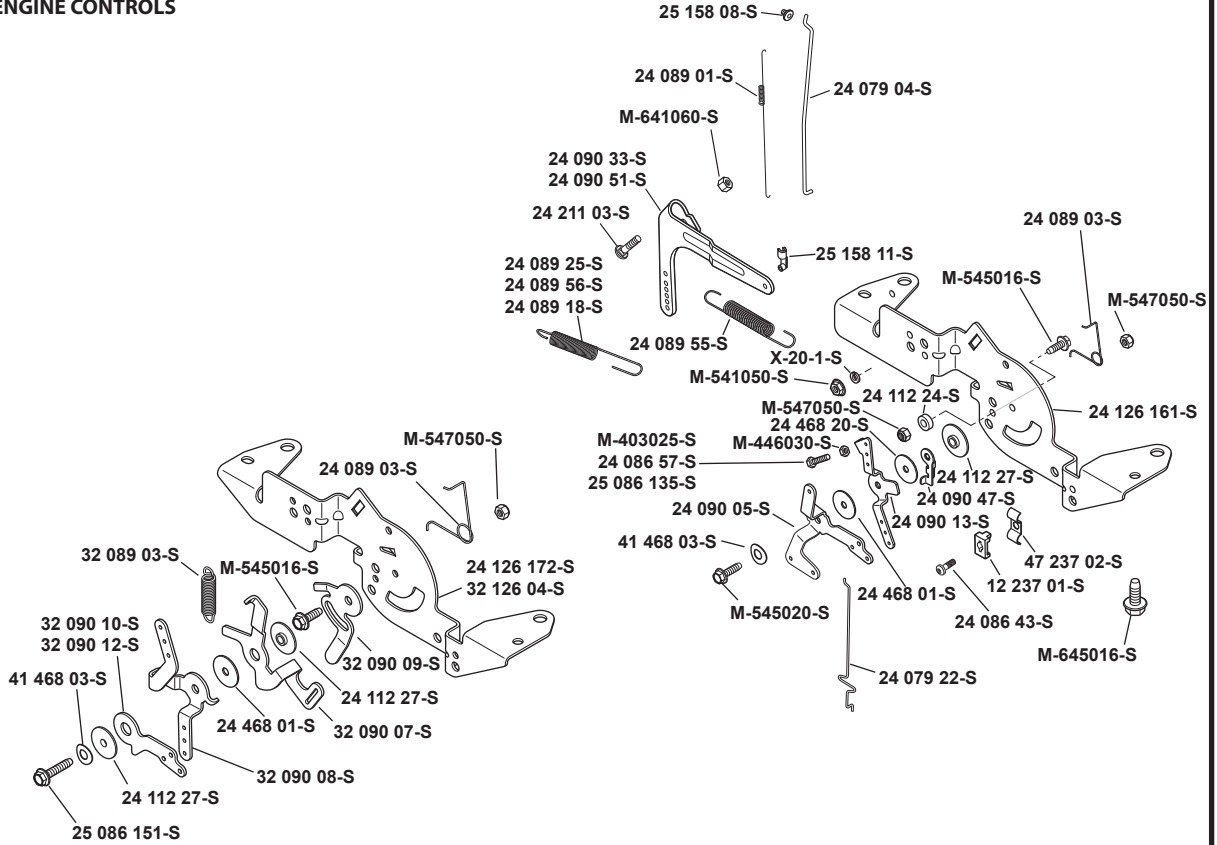
## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025



# TRACTOR - - MODEL NUMBER 944.601280

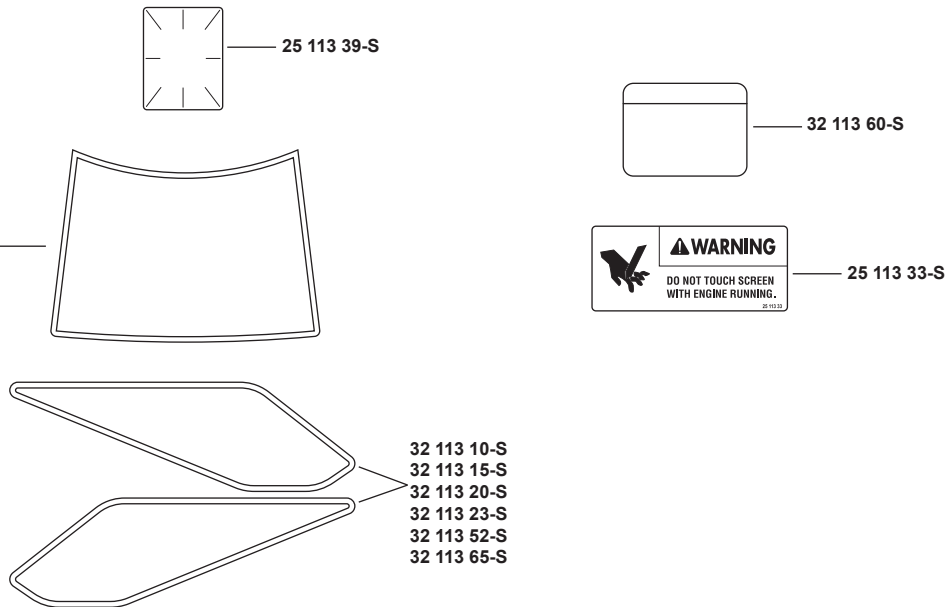
## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025

### ENGINE CONTROLS



### DECALS

- 32 113 06-S
- 32 113 07-S
- 32 113 08-S
- 32 113 09-S
- 32 113 12-S
- 32 113 13-S
- 32 113 14-S
- 32 113 16-S
- 32 113 17-S
- 32 113 18-S
- 32 113 19-S
- 32 113 21-S
- 32 113 22-S
- 32 113 24-S
- 32 113 25-S
- 32 113 26-S
- 32 113 27-S
- 32 113 28-S
- 32 113 29-S
- 32 113 35-S
- 32 113 36-S
- 32 113 37-S
- 32 113 38-S
- 32 113 39-S
- 32 113 42-S
- 32 113 43-S
- 32 113 44-S
- 32 113 46-S
- 32 113 48-S
- 32 113 49-S
- 32 113 50-S
- 32 113 54-S
- 32 113 57-S
- 32 113 58-S
- 32 113 64-S
- 32 113 61-S
- 32 113 62-S
- 32 113 63-S



Artwork is representative.  
Actual labels may differ depending on model and specification number.

# TRACTOR - - MODEL NUMBER 944.601280

## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
<b>FUEL SYSTEM GROUP 8-32-35</b>			<b>HEAD/VALVE/BREATHER 4-32-4</b>		
32 853 25-S	KIT, CARBURETOR	1	12 755 03-S	KIT, RETAINER	4
M-629105-S	STUD, M6X1.0X106 USE 25 072 25-S	1	235011-S	RETAINER, SPRING	4
M-641060-S	NUT, FLG M6X1.0	2	66 032 05-S	SEAL, VALVE STEM	2
47 154 01-S	CLIP, CABLE	1	24 016 01-S	VALVE, EXHAUST (STD)	2
24 086 12-S	SCREW, TAP M6X1.7X18	2	24 017 01-S	VALVE, INTAKE (STD)	2
24 393 16-S	PUMP, FUEL	1	32 326 06-S	KIT, BREATHER HOSE (INCLUDES 25 237 14-S)	1
25 111 34-S	LINE, FUEL (24"-CUT TO LENGTH)	1	25 237 14-S	CLAMP, HOSE 1/2" USE 25 237 31-S	5
25 237 14-S	CLAMP, HOSE 1/2" USE 25 237 31-S	2	32 081 02-S	KIT, BREATHER HOUSING (INCLUDES M-547050-S, 32 468 01-S)	1
24 050 13-S	FILTER, FUEL	1	M-547050-S	NUT, LOCK M5X.8	1
24 041 14-S	GASKET, AIR CLEANER BASE	1	32 468 01-S	WASHER, SEALING	1
24 041 52-S	GASKET, CARBURETOR	1	32 072 03-S	STUD, BREATHER COVER	1
<b>BLOWER HOUSING &amp; BAFFLES 6-32-1</b>			32 019 02-S	TAPPET	4
32 027 03-S	KIT, HOUSING BLOWER (41 037 10-S)	1	32 841 01-S	KIT, CYLINDER HEAD GASKET	2
32 096 08-S	COVER, AIR CLEANER	1	62 086 08-S	SCREW, FLG M10X1.5X90	8
M-545016-S	SCREW, FLG THD FRM M5X0.8X16	6	M-645016-S	SCREW, FLG THD FRM M6X1.0X16	1
M-645016-S	SCREW, FLG THD FRM M6X1.0X16	8	32 096 04-S	COVER, BREATHER (INCLUDES 32 041 01-S)	1
32 146 05-S	KIT, BACKING PLATE	1	32 318 13-S	KIT, #1 CYLINDER HEAD ASSEMBLY (Includes EXHAUST MOUNTING HARDWARE)(AFTER S/N 3810100003)	1
32 063 12-S	BAFFLE, CYL BARREL - #2 SIDE	1	32 318 14-S	KIT, #2 CYLINDER HEAD ASSEMBLY (INCLUDES EXHAUST MOUNTING HARDWARE) (AFTER S/N 38101 00003)	1
24 063 94-S	BAFFLE, VALLEY #2 CYLINDER	1	32 146 09-S	PLATE, GUIDE	2
M-545010-S	SCREW, FLG THD FRM M5X.8X10	2	32 072 04-S	STUD, ROCKER (AFTER S/N 3633510943)	4
24 063 93-S	BAFFLE, VALLEY #1 CYLINDER	1	32 186 03-S	ARM, ROCKER	4
32 063 10-S	BAFFLE, CYL BARREL - #1 SIDE	1	32 100 05-S	HEX NUT ASSEMBLY (INCLUDES 25 086 168-S) (AFTER S/N 3633510943)	4
24 086 12-S	SCREW, TAP M6X1.7X18	2	25 599 01-S	PIVOT, ROCKER ARM (AFTER S/N 3633510943)	4
25 086 158-S	SCREW, FLNG THD FRM M6X1.0X10 NOT ILLUSTRATED	2	32 411 04-S	ROD, PUSH (AFTER S/N 3633510943)	4
41 403 10-S	REGULATOR/RECTIFIER	1	32 755 03-S	KIT, CYLINDER HEAD HARDWARE NOT ILLUSTRATED (Services 1 Head. Quantities listed are for both heads)(12 755 03-S, 12 173 01-S, 24 089 02-S, 235011-S, 66 032 05-S, 24 017 01-S, 24 016 01-S, 32 146 09-S, 32 072 04-S, 32 186 03-S, 32 100 05-S, 25 086 168-S, 25 599 01-S, 32 411 04-S)	2
41 037 10-S	NAMEPLATE, SERVICE NOT ILLUSTRATED	1	32 326 07-S	KIT, FUEL PUMP HOSE	1
<b>CRANKCASE GROUP 2-32-5</b>			32 050 05-S	FILTER, BREATHER	1
12 402 02-S	REED, BREATHER	1	32 089 05-S	SPRING, VALVE	4
24 018 04-S	RETAINER, BREATHER REED	1	25 086 374-S	SCREW, PAN HEAD	8
24 380 16-S	PIN, LOCATING	6	25 237 01-S	CLAMP, HOSE	1
24 032 19-S	SEAL, OIL (HELIX LIP)	1	25 096 10-S	COVER, ROCKER STAMPED STEEL	1
12 422 07-S	SHIM, CAMSHAFT (WHITE .028")	1	25 096 09-S	COVER, ROCKER STAMPED STEEL	1
12 422 08-S	SHIM, CAMSHAFT (BLUE .03")	1	32 050 05-S	FILTER, BREATHER	1
12 422 09-S	SHIM, CAMSHAFT (RED .032")	1	25 173 28-S	CAP, VALVE SPRING	2
12 422 10-S	SHIM, CAMSHAFT (YELLOW .034")	1	25 445 03-S	STRAP, LIFT	1
12 422 11-S	SHIM, CAMSHAFT (GREEN .036")	1			
12 422 12-S	SHIM, CAMSHAFT (GRAY .038")	1			
12 422 13-S	SHIM, CAMSHAFT (BLACK .04")	1			
24 018 01-S	RETAINER, PISTON PIN	1			
24 067 28-S	ROD, ASSEMBLY CONNECTING (STD)	1			
24 018 09-S	RETAINER, RING	1			
24 468 15-S	WASHER, FLAT 11/32"	1			
28 032 09-S	SEAL, GOVERNOR CROSS SHAFT	1			
24 144 38-S	SHAFT, GOVERNOR CROSS	1			
24 126 19-S	BRACKET, OIL FILL TUBE	1			
M-545013-S	SCREW, FLG THD FRM M5X0.8X13	1			
M-931010-S	WASHER, FLAT 9 MM	1			
32 755 04-S	KIT, DIPSTICK AND TUBE	1			
25 153 09-S	O-RING	2			
12 153 01-S	O-RING, LOWER OIL FILL TUBE	1			
32 010 05-S	CAMSHAFT ASSEMBLY	1			
32 874 13-S	KIT, PISTON W/RING (STD)	1			
32 108 01-S	RING SET, PISTON (STD)	1			

# TRACTOR - - MODEL NUMBER 944.601280

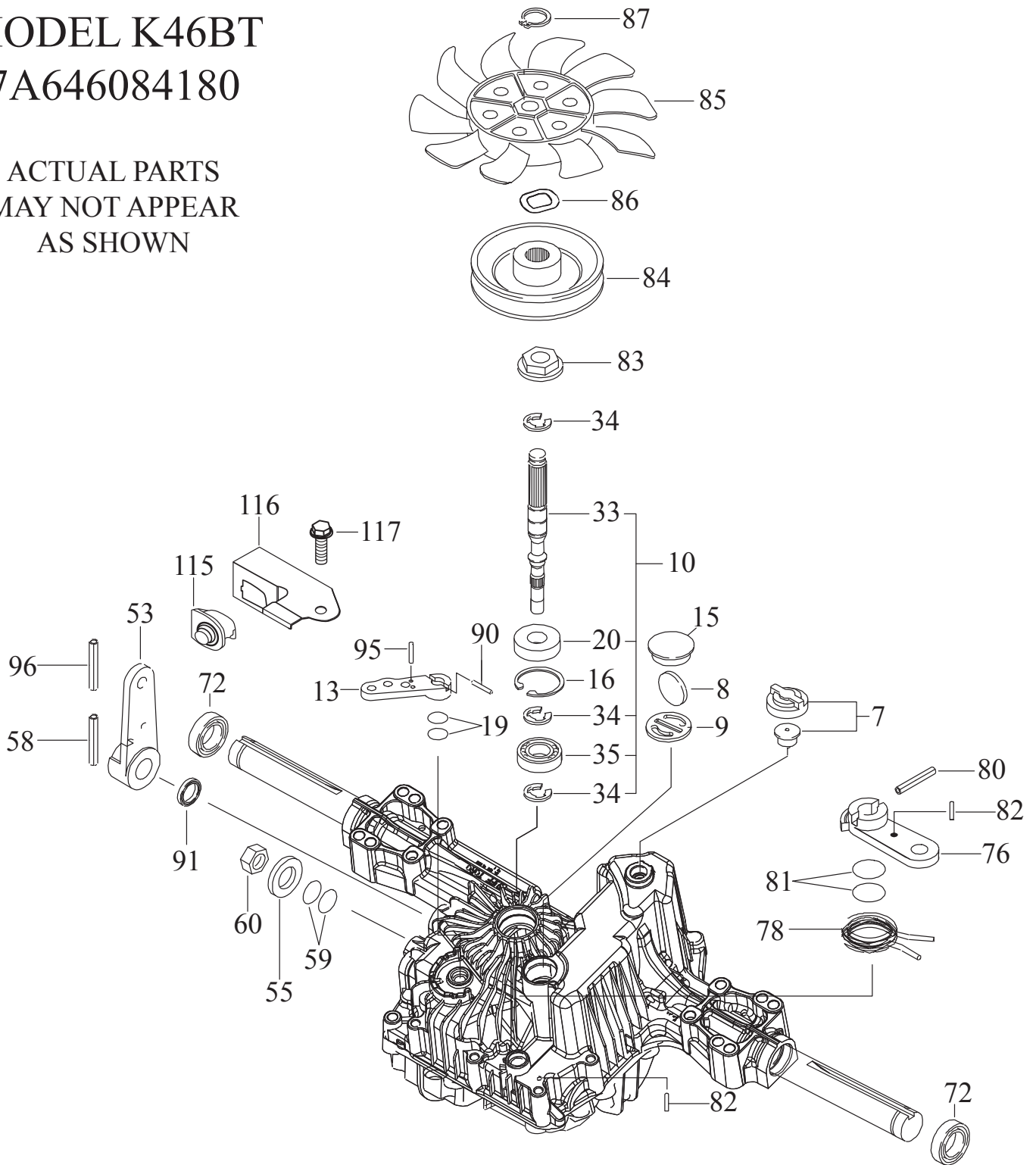
## KOHLER ENGINE-MODEL NUMBER SV725, TYPE NUMBER 3025

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
<b>ENGINE CONTROLS GROUP 9-32-1</b>			<b>IGNITION/ELECTRICAL 5-32-34</b>		
24 211 03-S	BOLT, RD HD SQ NECK M6X1.0X25	1	25 132 16-S	PLUG, SPARK	2
24 090 51-S	LEVER, GOVERNOR	1	237878-S	KIT, 15 / 20 AMP STATOR	1
M-641060-S	NUT, FLG M6X1.0	1	M-548025-S	SCREW, THD FRM M5X0.8X25	2
24 089 01-S	SPRING, LINKAGE	1	12 086 14-S	SCREW, FLG M10X1.5X45	1
25 158 08-S	BUSHING, LINKAGE RETAINING	1	12 468 03-S	WASHER, FLAT 13/32"	1
24 079 04-S	LINKAGE, THROTTLE	1	32 025 16-S	FLYWHEEL ASSEMBLY (SV710/SV730)	1
25 158 11-S	BUSHING, THROTTLE LINKAGE	1	X-42-15-S	KEY, 3/16" X 5/8"	1
M-545016-S	SCREW, FLG THD FRM M5X0.8X16	1	20 146 05-S	PLATE, FAN MOUNTING	1
M-547050-S	NUT, LOCK M5X.8	1	32 157 01-S	FAN	1
24 089 03-S	SPRING, CHOKE RETURN	1	32 162 03-S	SCREEN, GRASS	1
32 126 04-S	BRACKET, CONTROL	1	25 584 05-S	MODULE, IGNITION-USE 24 584 45-S	2
M-645016-S	SCREW, FLG THD FRM M6X1.0X16	4	M-545020-S	SCREW, FLG THD FRM M5X.8X20	4
12 237 01-S	CLAMP, CABLE	2	25 155 41-S	CONNECTOR	1
24 086 43-S	SCREW, LBD THD FRM M5x0.8x16	2	25 454 03-S	TIE, WIRE NOT ILLUSTRATED	2
24 079 22-S	LINKAGE, CHOKE	1	32 176 14-S	KIT, WIRE HARNESS NOT ILLUSTRATED!	1
24 112 27-S	SPACER, CONTROL ASSEMBLY	1	25 454 05-S	TIE NOT ILLUSTRATED	1
24 090 47-S	LEVER, THROTTLE ACTUATOR	1	25 452 01-S	TERMINAL NOT ILLUSTRATED	2
24 090 13-S	LEVER, THROTTLE CONTROL	1	<b>CRANKSHAFT 1-32-6</b>		
24 468 01-S	WASHER, FLAT 5.5 MM	1	52 139 09-S	PLUG, CUP	1
M-545020-S	SCI REW, FLG THD FRM M5X.8X20	1	32 014 305-S	CRANKSHAFT	1
41 468 03-S	WASHER, SPRING 1/4"	1	X-43-1-S	KEY, 1/8" X 1/2"	1
24 090 05-S	LEVER, CHOKE	1	<b>DECALS 12-32-33</b>		
M-403025-S	SCREW, SLT HD CAP M4X0.7X25	1	25 113 39-S	DECAL, CLEAR LAMINATE	1
M-446030-S	NUT, M4X0.7	1	32 113 39-S	DECAL, 24 HI! P	1
24 468 20-S	WASHER, FLAT 5 MM	1	32 113 10-S	DECAL, 2-PC WNG ST	1
24 089 55-S	SPRING, GOVERNED IDLE	1	<b>LUBRICATION GROUP 3-32-23</b>		
24 089 25-S	SPRING, GOVERNOR	1	24 086 17-S	SCREW, FLG M8X1.25X45	10
<b>AIR INTAKE/FILTRATION 10-32-4</b>			25 032 06-S	SEAL, OIL	1
24 041 14-S	GASKET, AIR CLEANER BASE	1	25 139 57-S	PLUG, SQ HD PIPE 3/8"	2
32 344 02-S	LATCH, AIR CLEANER ELEMENT	1	32 199 14-S	OIL PAN ASSEMBLY	1
32 083 03-S	ELEMENT, AIR FILTER	1	12 144 02-S	SHAFT, GOVERNOR GEAR	1
24 164 91-S	KIT, INTAKE MANIFOLD	1	12 380 01-S	PIN, GOVERNOR REGULATING	1
M-651040-S	SCREW, FLG M6X1.0X40	4	24 448 02-S	TAB, LOCKING	1
25 139 60-S	PLUG, CTSK PIPE 1/8"	1	32 310 02-S	KIT, GOVERNOR GEAR	1
24 041 52-S	GASKET, CARBURETOR	1	24 153 01-S	O-RING, OIL PICK-UP	1
24 153 27-S	O-RING, INTAKE PORT	2	32 086 01-S	SCREW, SHD THD FRM M6X.0X6.5	2
32 094 08-S	BASE, AIR CLEANER	1	32 393 16-S	PUMP, OIL ASS! EMBLY	1
25 326 08-S	HOSE, EVAPORATIVE, 20"	1	52 050 02-S	FILTER, OIL	1
25 173 33-S	CAP, MASKING	1	32 123 01-S	TUBE, OIL FEED - FILTER TO PAN	1
25 155 51-S	CONNECTOR, EVAPORATIVE	1	32 123 09-S	OIL FEED TUBE ASSEMBLY	1
<b>STARTING SYSTEM 7-32-7</b>			32 136 05-S	NIPPLE, OIL FILTER	1
M-851080-S	SCREW, FLG M8X1.25X80	2	25 139 60! -S	PLUG, CTSK PIPE 1/8"	1
32 098 03-S	STARTER ASSEMBLY	1	32 468 02-S	WASHER, FLAT	1
12 243 04-S	BRUSH ASSY (FASCO/V.WEISE/W&G) NOT ILLUSTRATED	1	32 123 06-S	TUBE, OIL FEED	1
12 755 39-S	KIT,DR W/GEAR (FASCO/V.WEISE/W&G) NOT ILLUSTRATED	1	32 153 05-S	O-RING	1
32 211 01-S	BOLT, THRU NOT ILLUSTRATED	1			
32 227 01-S	END CAP(FASCO/V.WEISE/W&G) NOT ILLUSTRATED	1			

**TRACTOR - - MODEL NUMBER 944.601280**  
**TUFFTORQ TRANSAXLE - - MODEL NUMBER K46BT**

**MODEL K46BT**  
**7A646084180**

ACTUAL PARTS  
MAY NOT APPEAR  
AS SHOWN





**TRACTOR - - MODEL NUMBER 944.601280**  
**TUFFTORQ TRANSAXLE - - MODEL NUMBER K46BT**

<b>KEY NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
7	414395	VENT VALVE 15
8	414396	MAGNET
9	414397	MAGNET HOLDER
10	415923	PUMP SHAFT/BEARING KIT
13	414398	BYPASS LEVER
15	414399	SEALING CAP 30
16	414400	SNAP RING C 35
19	414401	O-RING 1A P10A
20	414402	SEAL TC 153507
33	414403	PUMP SHAFT (STANDARD)
34	414404	E-RING 15
35	414405	BEARING 6202C3
53	414431	CONTROL LEVER F
55	415924	WASHER 12
58	415925	ROLL PIN 6 * 40
59	415926	O-RING 1A P14
60	415927	NUT 12
72	414407	SEAL 19 * 32 * 8
76	414408	BRAKE LEVER
78	414409	BRAKE RETURN SPRING
80	414410	SPRING PIN 5 * 32
81	414411	O-RING 1A P12
82	414412	SPRING PIN 4 * 16
83	414413	SPINE COLLAR
84	414414	PULLEY L
85	414415	FAN, BLACK
86	414416	WAVE WASHER
87	414417	SNAP RING
90	414418	SPRING PIN 3.0A * 20
91	414419	OIL SEAL 16 * 22 *.03
95	414850	SPRING PIN 3.0A*16
96	414420	ROLL PIN 3.5 * 40
115	415928	SWITCH 6440-11 DELTA
116	415929	SWITCH BRACKET
117	415930	TAPPING SCREW 8 * 20

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

**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 ropes 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.

**REPAIRS:** 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.

**DISCLAIMERS:** 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 JURISDICTIONS 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.

**CUSTOMER RESPONSIBILITIES:** In addition 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.

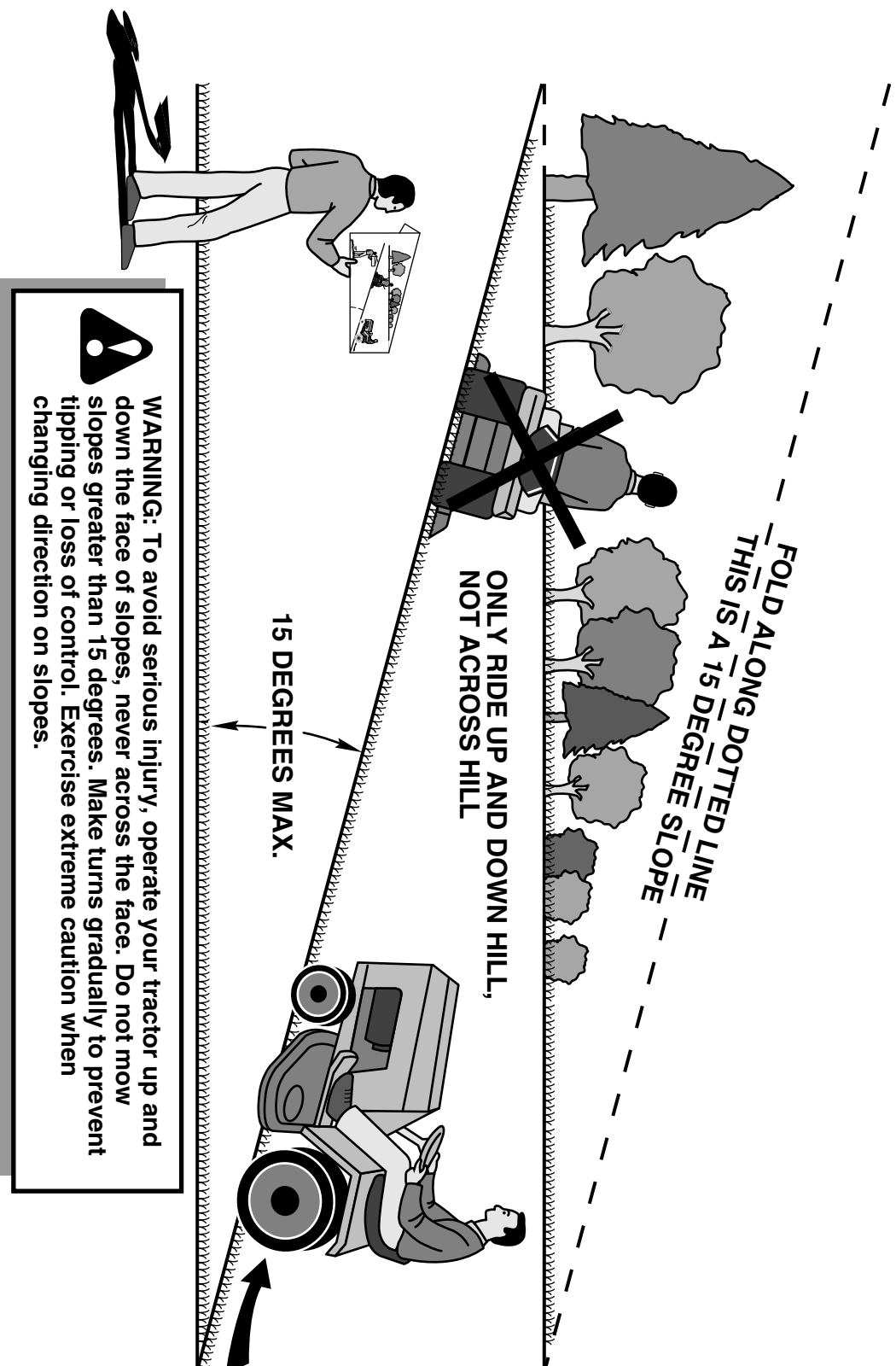
**LIST OF APPLICABLE WARRANTY PERIODS:** The following list contains the applicable Warranty Period for your Craftsman product and is based on a combination of the type of product or component and the intended and actual use of the product or component:

1. **90 DAYS:** Craftsman products intended for use or actually used for commercial, institutional, professional or income-producing 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 a 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 income-producing 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.

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