

# Operator's Manual

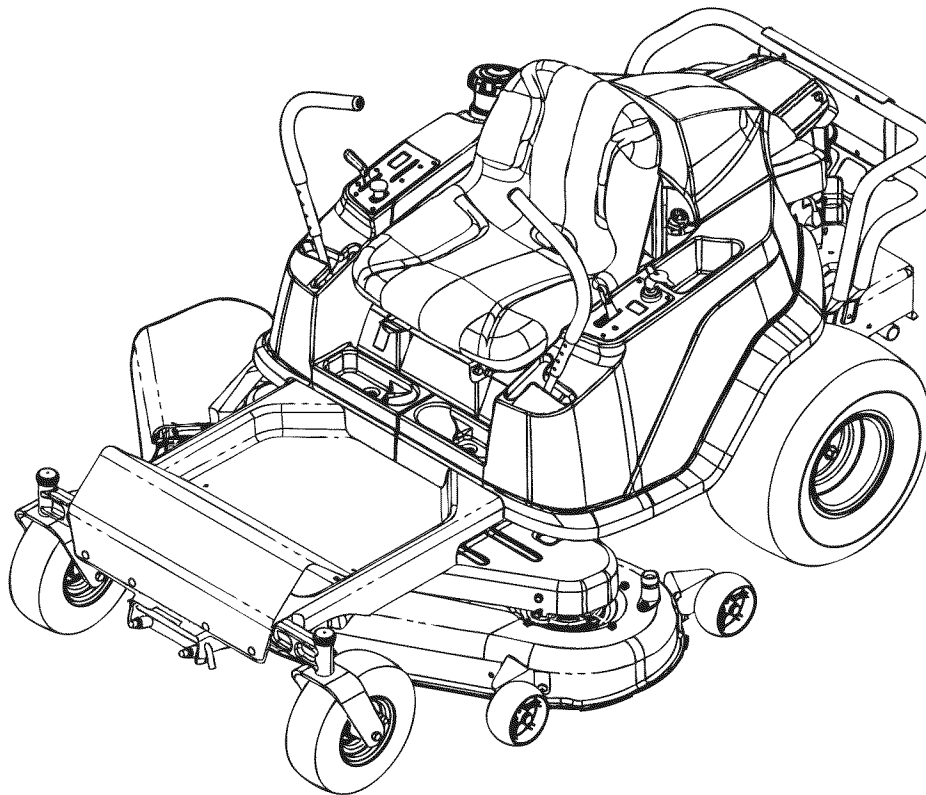
# CRAFTSMAN®

## ZTS 7000

Zero-Turn Rear Engine Rider with Electric Start

Model No.

**107.280070 (26HP Briggs & Stratton Engine with 52" Mower)**



**CAUTION:** Before using this product, read the manual and follow all its Safety Rules and Operating Instructions.

For answers to your questions about this product, call:

**1-800-659-5917**

**Sears Craftsman Help Line**

5 am - 5 pm, Mon - Sat

Sears Brands Management Corporation, Hoffman Estates, IL 60179 U.S.A.

Visit our Craftsman website: [www.craftsman.com](http://www.craftsman.com)

7104938  
Revision A

**Thank you** for purchasing this quality-built CRAFTSMAN mower. We're pleased that you've placed your confidence in the CRAFTSMAN brand. When operated and maintained according to the instructions in this manual, your CRAFTSMAN product will provide many years of dependable service.

This manual contains safety information to make you aware of the hazards and risks associated with mowers and how to avoid them. This product and its approved attachments/accessories are designed and intended only for lawn work or snow removal and are not intended for any other purpose. It is important that you read and understand these instructions thoroughly before attempting to start or operate this equipment. **Save these original instructions for future reference.**

## **Where to Find Us**

You never have to look far to find support and service for your CRAFTSMAN mower. There are authorized service dealers in North America who provide quality service. You can contact Customer Service by phone at (800) 659-5917, or locate a dealer on the Internet at [www.craftsman.com](http://www.craftsman.com).

## **Mower**

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

## **Engine**

Model Type Trim \_\_\_\_\_

Date Code \_\_\_\_\_

**Date Purchased** \_\_\_\_\_

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# OPERATOR SAFETY



## Operating Safety

Congratulations on purchasing a superior-quality piece of lawn and garden equipment. Our products are designed and manufactured to meet or exceed all industry standards for safety.

Do not operate this machine unless you have familiarized yourself with it. Reading and understanding this operator's manual is a way to do just that.

Power equipment is only as safe as the operator. If it is misused, or not properly maintained, it can be dangerous! Remember, you are responsible for your safety and that of those around you.

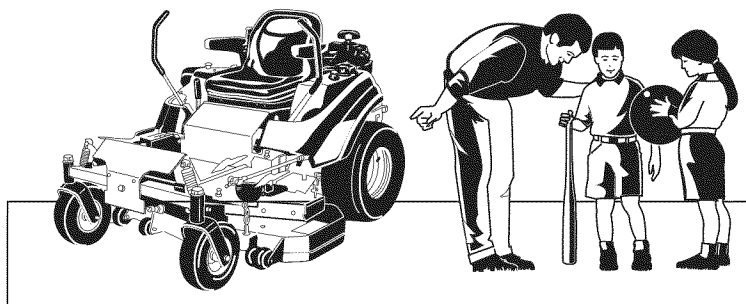
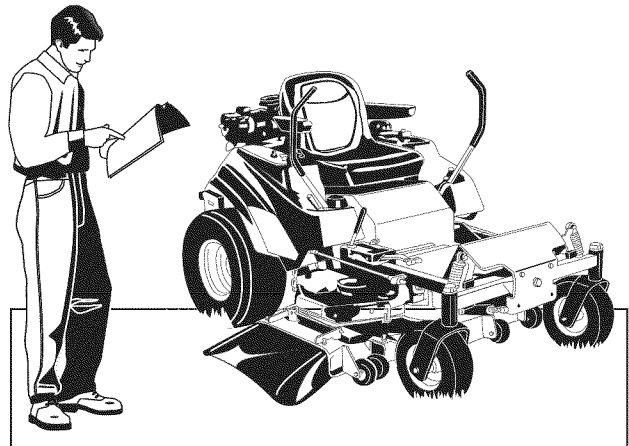
Use common sense, and think through what you are doing. If you are not sure that the task you are about to perform can be safely done with the equipment you have chosen, ask a professional: contact your local authorized dealer.

## Read the Manual

The operator's manual contains important safety information you need to be aware of **BEFORE** you operate your unit as well as **DURING** operation.

Safe operating techniques, an explanation of the product's features and controls, and maintenance information is included to help you get the most out of your equipment investment.

Be sure to completely read the Safety Rules and Information found on the following pages. Also completely read the Operation section.



## Children

Tragic accidents can occur with children. Do not allow them anywhere near the area of operation. Children are often attracted to the unit and mowing activity. Never assume that children will remain where you last saw them. If there is a risk that children may enter the area where you are mowing, have another responsible adult watch them.

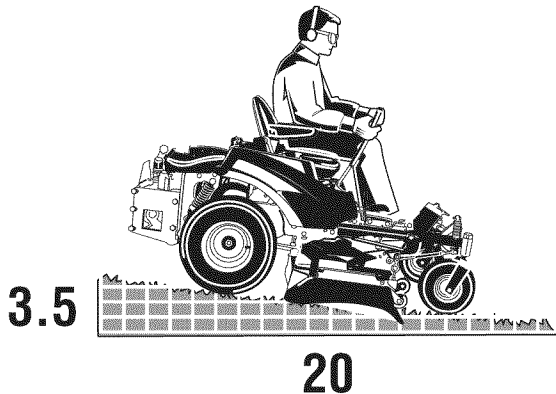
## Slope Operation

Operation on slopes can be dangerous. Using the unit on a slope that is too steep where you do not have adequate wheel traction (and control) can cause sliding, loss of steering, control, and possible rollover. You should not operate on a slope greater than a 3.5 foot rise over a 20 foot length (10 degrees).

Always mow up and down slopes, not across, and avoid sudden turns or rapid speed changes. Reduce speed and use extreme caution on ALL slopes.

Also, note that the surface condition you are on can greatly impact your ability to safely operate this machine. Operating on wet or slippery slopes can cause sliding and loss of steering and control. Do not operate on slopes that are slippery, wet, or have soft soil conditions.

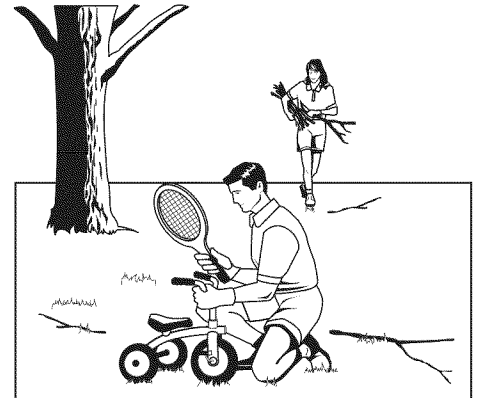
If you feel unsure about operating the unit on a slope, don't do it. It's not worth the risk.



## Thrown Objects

This unit has spinning mower blades. These blades can pick up and throw debris that could seriously injure a bystander. Be sure to clean up the area to be mowed and remove objects that could be thrown by the blade **BEFORE** you start mowing. Do not operate this unit without the entire grass catcher or discharge guard (deflector) in place.

Also, do not allow anyone in the area while the unit is running! If someone does enter the area, shut the unit off immediately until they leave.

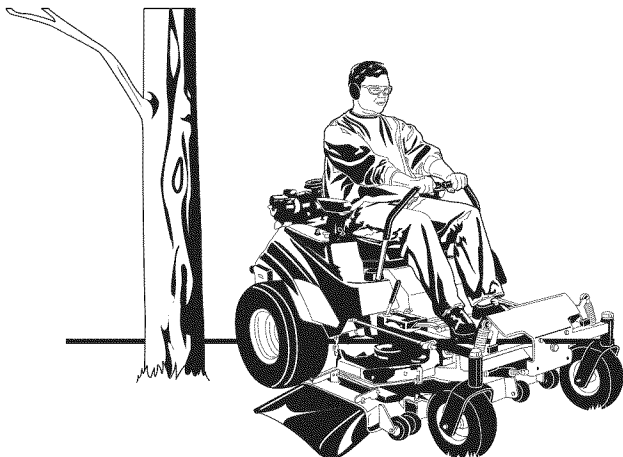


## Moving Parts

This equipment has many moving parts that can injure you or someone else. However, if you stay in the operator zone (stay seated in the seat), and follow the safety rules in this operator's manual, the unit is safe to operate.

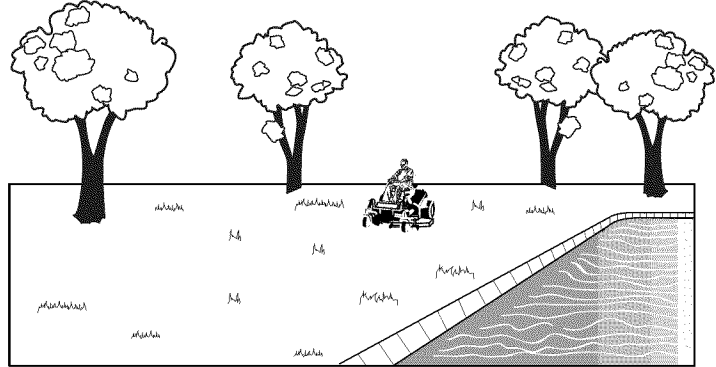
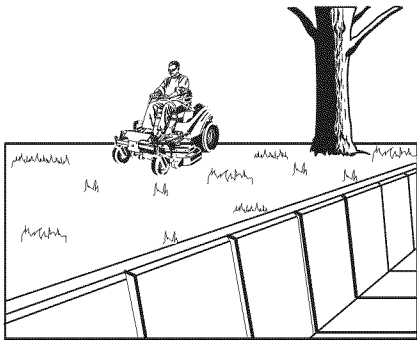
The mower deck has spinning mower blades that can amputate hands and feet. Do not allow anyone near the unit while it is running! Keep safety devices (guards, shields, and switches) in place and working.

To help you, the operator, use this equipment safely, it is equipped with an operator-present safety system. Do **NOT** attempt to alter or bypass the system. See your dealer immediately if the system does not pass all the safety interlock system tests found in this manual



## Retaining Walls, Drop-Offs, and Water

Retaining walls and drop-offs around steps and water are a common hazard. Give yourself a minimum of two mower widths of clearance around these hazards and hand-trim with a walk behind mower or string trimmer. Wheels dropping over retaining walls, edges, ditches, embankments, or into water can cause rollovers, which may result in serious injury, death, or drowning.



## Fuel and Maintenance

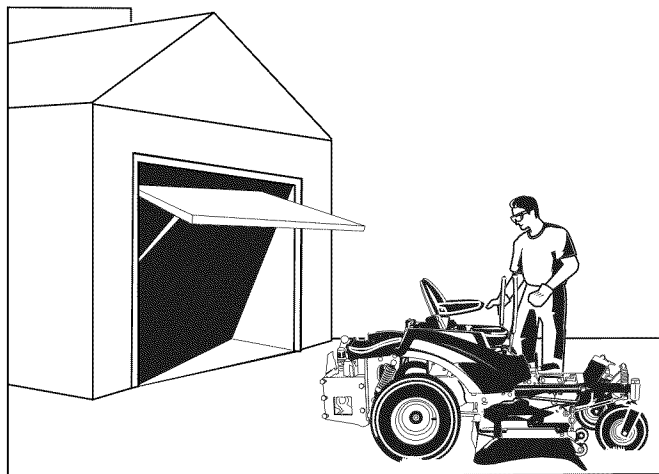
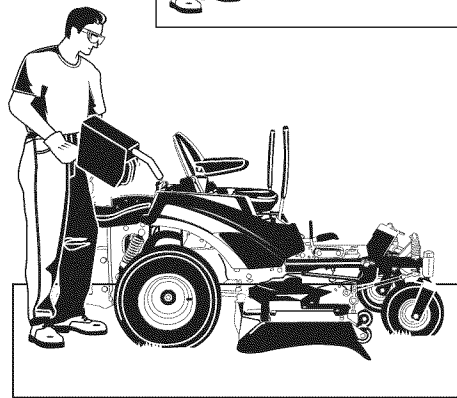
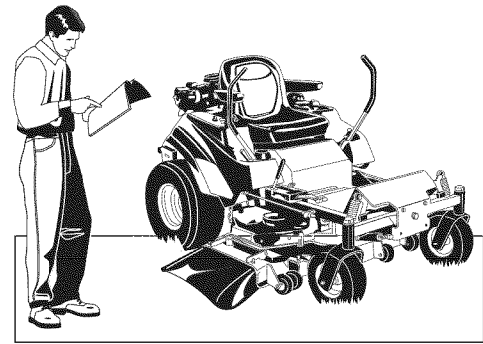
Always disengage all drives, shutoff the engine, and remove the key before doing any cleaning, refueling, or servicing.

Gasoline and its vapors are extremely flammable. Do not smoke while operating or refueling. Do not add fuel while engine is hot or running. Allow engine to cool for at least 3 minutes prior to adding fuel.

Do not add fuel indoors, in an enclosed trailer, garage, or any other enclosed area that is not well ventilated. Gasoline spills should be cleaned up promptly and before operation begins.

Gasoline should be stored only in sealed containers approved for fuel.

Proper maintenance is critical to the safety and performance of your unit. Keep the unit free of grass, leaves, and excess oil. Be sure to perform the maintenance procedures listed in this manual, especially periodically testing the safety system.



## Enclosed Areas

Only operate this unit outdoors and away from unventilated areas such as inside garages or enclosed trailers. The engine emits poisonous carbon monoxide gas and prolonged exposure in an enclosed area can result in serious injury or death.

**WARNING:** This powerful cutting machine is capable of amputating hands and feet and can throw objects that can cause injury and damage! Failure to comply with the following SAFETY instructions could result in serious injury or death to the operator or other persons. The owner of the machine must understand these instructions and must allow only persons who understand these instructions to operate machine. Each person operating the machine must be of sound mind and body and must not be under the influence of any substance, which might impair vision, dexterity or judgment. If you have any questions pertaining to your machine which your dealer cannot answer to your satisfaction, contact the Customer Service Department.

### Protection for 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. 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 assume that children will remain where you last saw them.

1. KEEP children out of the mowing area and under the watchful care of a responsible adult other than the operator.
2. DO NOT allow children in yard when machine is operated (even with the blade OFF).
3. DO NOT allow children or others to ride on machine, attachments or towed equipment (even with the blades OFF). They may fall and be seriously injured.
4. DO NOT allow pre-teenage children to operate machine.
5. ALLOW only responsible adults & teenagers with mature judgment under close adult supervision to operate machine.
6. DO NOT operate blades in reverse. STOP BLADES. LOOK and SEE behind and down for children, pets and hazards before and while backing.
7. USE EXTRA CARE when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

### Protection Against Tipovers

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra CAUTION. If you cannot back up the slope or if you feel uneasy on the slope, DO NOT mow it. Use extra care with grass catchers or other attachments; these affect the handling and the stability of the machine.

1. DO NOT operate machine on slopes exceeding 10 degrees (18% grade).
2. Exercise EXTREME CAUTION on all slopes. Turn blades OFF when traveling uphill. Use a slow speed and avoid sudden or sharp turns.
3. DO NOT operate machine back and forth across face of slopes. Operate up and down. Practice on slopes with blades off.
4. AVOID starting, stopping or turning on slopes. If machine stops going uphill or tires lose traction, turn blades OFF and back slowly straight down the slope.
5. STAY ALERT for holes and other hidden hazards. Tall grass can hide obstacles. Keep away from ditches, washouts, culverts, fences and protruding objects.

### Protection Against Tipovers

(Continued From Previous Column)

6. KEEP A SAFE DISTANCE (at least 3 feet) away from edge of ditches and other drop offs. The machine could turn over if an edge caves in.
7. Always begin forward motion slowly and with caution.
8. Use weights or a weighted load carrier in accordance with instructions supplied with a grass catcher. DO NOT operate machine on slopes exceeding 10 degrees (18% grade) when equipped with grass catcher.
9. DO NOT put your foot on the ground to try to stabilize the machine.
10. DO NOT operate machine on wet grass. Reduced traction could cause sliding.
11. Chose a low enough speed setting so that you will not have to stop or shift on a slope. Tires may lose traction on slopes even though the brakes are functioning properly.
12. DO NOT operate machine under any condition where traction, steering or stability is doubtful.
13. Always keep the machine in gear when going down slopes. DO NOT shift to neutral (or actuate hydro roll release) and coast downhill.

### Preparation

1. Read, understand, and follow instructions and warnings in this manual and on the machine, engine and attachments. Know the controls and the proper use of the machine before starting.
2. Only mature, responsible persons shall operate the machine and only after proper instruction.
3. Data indicates that operators age 60 and above, are involved in a large percentage of mower-related injuries. These operators should evaluate their ability to operate the mower safely enough to protect themselves and others from serious injury.
4. Handle fuel with extra care. Fuels are flammable and vapors are explosive. Use only an approved fuel container. DO NOT remove fuel cap or add fuel with engine running. Add fuel outdoors only with engine stopped and cool. Clean spilled fuel from machine. DO NOT smoke.
5. Practice operation of machine with BLADES OFF to learn controls and develop skills.

## Preparation

(Continued From Previous Page)

6. Check the area to be mowed and remove all objects such as toys, wire, rocks, limbs and other objects that could cause injury if thrown by blade or interfere with mowing.
7. Keep people and pets out of mowing area. Immediately STOP blades, STOP engine, and STOP machine if anyone enters the area.
8. Check shields, deflectors, switches, blade controls and other safety devices frequently for proper operation and location.
9. Make sure all safety decals are clearly legible. Replace if damaged.
10. Protect yourself when mowing and wear safety glasses, long pants and substantial footwear.
11. Know how to STOP blades and engine quickly in preparation for emergencies.
12. Use extra care when loading or unloading the machine into a trailer or truck.
13. Check grass catcher components frequently for signs of wear or deterioration and replace as needed to prevent injury from thrown objects going through weak or worn spots.

## 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.

1. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
2. Use only an approved fuel container.
3. DO NOT remove fuel cap or add fuel with the engine running. Allow the engine to cool before refueling.
4. DO NOT refuel the machine indoors.
5. DO NOT store the machine or fuel container inside where there is an open flame, spark or pilot light such as on a water heater or other appliances.
6. DO NOT fill fuel containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place the containers on the ground away from the vehicle before filling.
7. Remove gas-powered equipment from the vehicle or trailer and refuel it on the ground. If this is not possible, then refuel equipment using a portable container, rather than a gasoline dispenser nozzle.
8. DO NOT start gas powered equipment in enclosed vehicles or trailers.
9. 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.
10. If fuel is spilled on clothing, change clothing immediately.
11. Never overfill a fuel tank. Replace fuel cap and tighten securely.

## OPERATION

1. Mount and dismount machine from left side. Keep clear of discharge opening at all times.
2. Start engine from operator's seat, if possible. Make sure blades are OFF and parking brake is set.

3. DO NOT leave machine with engine running. STOP engine, STOP blades, SET brake, and Remove key before leaving operators position of any reason.
4. DO NOT operate machine unless properly seated with feet on feet rests or pedal(s).
5. STOP BLADES and ENGINE and make sure blades have stopped before removing grass catcher or unclogging mower to prevent loss of fingers or hand.
6. Blades must be OFF except when cutting grass. Set blades in highest position when mowing over rough ground.
7. Keep hands and feet away from rotating blades underneath deck. DO NOT place foot on ground while BLADES are ON or machine is in motion.
8. DO NOT operate machine without entire grass catcher or guards in place and working. DO NOT point discharge at people, passing cars, windows or doors.
9. Slow down before turning.
10. Watch out for traffic when near or crossing roadways.
11. STOP engine immediately after striking an obstruction. Inspect machine and repair damage before resuming operation.
12. Operate machine only in daylight or with good artificial light.
13. Move joystick (if equipped) SLOWLY to maintain control during speed and directional changes.
14. Exercise CAUTION when pulling loads. Limit loads to those you can safely control and attach loads to hitch plate as specified with attachment instructions.
15. On slopes, the weight of the towed equipment may cause loss of traction and loss of control. When towing, travel slowly and allow extra distance to stop.
16. DO NOT operate engine in enclosed areas. Engine exhaust gases contain carbon monoxide, a deadly poison.
17. DO NOT discharge material against a wall or obstruction. Material may ricochet back towards the operator.
18. Only use accessories approved by the manufacturer. See manufacturer's instructions for proper operation and installation of accessories.

## Emissions

1. Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.
2. Look for the relevant Emissions Durability Period and Air Index information on the engine emissions label.

## Ignition System

1. This spark ignition system complies with Canadian ICES-002.



## Towing

1. Tow only with a machine that has a hitch designed for towing. DO NOT attach towed equipment except at the hitch point.
2. Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
3. DO NOT allow children or others on towed equipment.
4. On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
5. Travel slowly and allow extra distance to stop.

## Maintenance

1. DO NOT store machine or fuel container inside where fumes may reach an open flame, spark or pilot light such as in a water heater, furnace, clothes dryer or other gas appliance. Allow engine to cool before storing machine in an enclosure. Store fuel container out of the reach of children in a well ventilated, unoccupied building.
2. Keep engine free of grass, leaves or excess grease to reduce fire hazard and engine overheating.
3. When draining fuel tank, drain fuel into an approved container outdoors and away from open flame.
4. Check brakes frequently; adjust, repair or replace as needed.
5. Keep all bolts, nuts and screws properly tight. Check that all cotter pins are in proper position.

## Maintenance

(Continued From Previous Column)

6. Always provide adequate ventilation when running engine. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
7. Disconnect negative (black) cable from battery before performing maintenance or service. Cranking engine could cause injury.
8. DO NOT work under machine without safety blocks.
9. Service engine and make adjustments only when engine is stopped. Remove spark plug wire(s) from spark plug(s) and secure wire(s) away from spark plug(s).
10. DO NOT change engine governor speed settings or overspeed engine.
11. Lubricate machine at intervals specified in manual to prevent controls from binding.
12. Mower blades are sharp and can cut. Wrap the blades or wear heavy leather gloves and use CAUTION when handling them.
13. DO NOT test for spark by grounding spark plug next to spark plug hole; spark plug could ignite gas exiting engine.
14. Have machine serviced by an authorized dealer at least once a year and have the dealer install any new safety devices.
15. Maintain or replace safety and instruction labels as necessary.
16. Use only genuine replacement parts to assure that original standards are maintained.



### WARNING

Grass Catcher bags used on this product are made of woven fabric, and are subject to deterioration and wear during normal usage. Check condition of bags before each use. Immediately replace worn or damaged catcher bags with only bags recommended by the manufacturer. The Grass Catcher is optional equipment on some models.



### WARNING

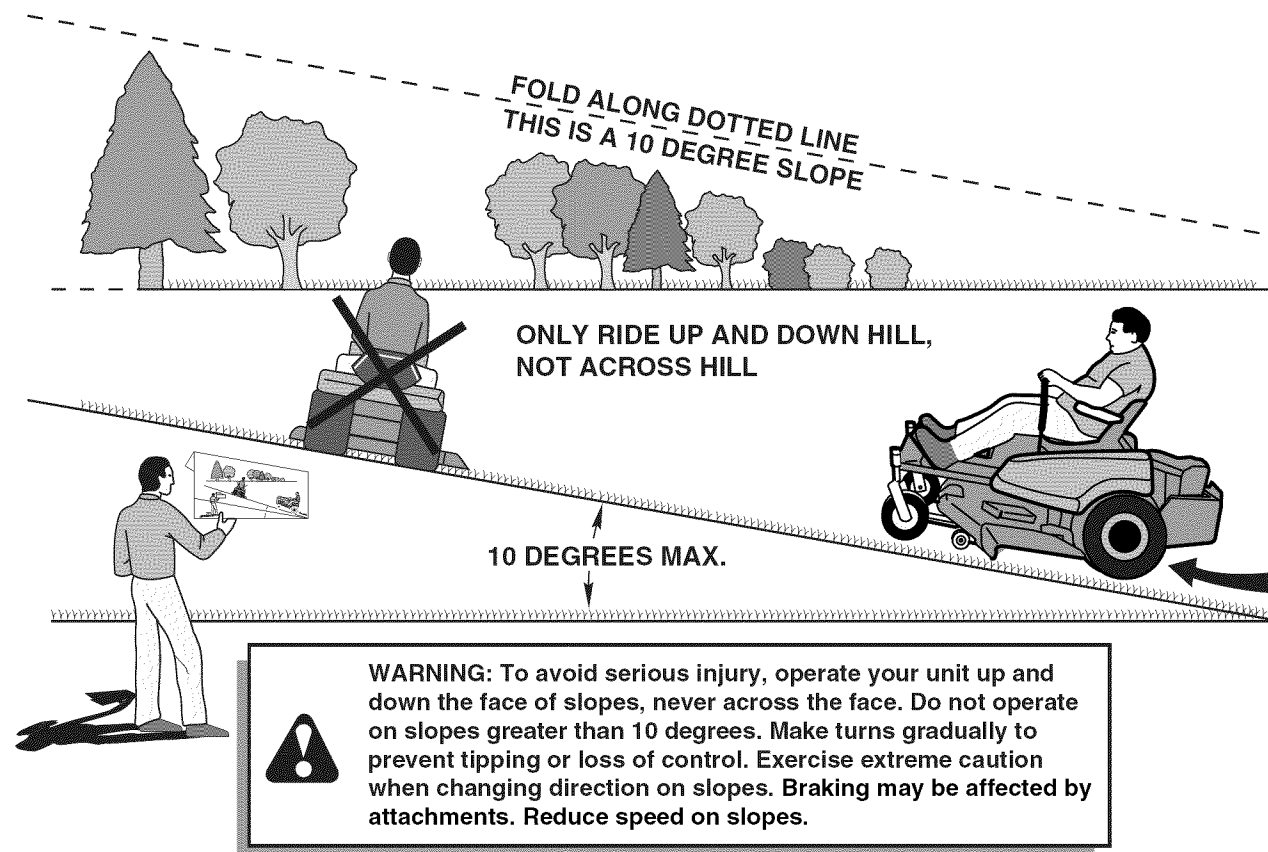
Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer or other reproductive harm.



### 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.

## SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



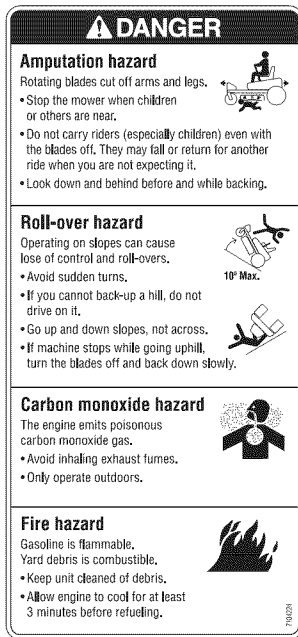
1. Fold this page along dotted line indicated above.
2. Hold page before you so that its left edge is vertically parallel to a tree trunk or other upright structure.
3. Sight across the fold in the direction of hill slope you want to measure.
4. Compare the angle of the fold with the slope of the hill.

## Safety and Instructional Decals

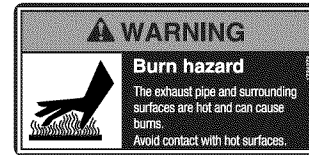
All DANGER, WARNING, CAUTION and instructional messages on your rider and mower should be carefully read and obeyed. Personal bodily injury can result when these instructions are not followed. The information is for your safety and it is important! The safety decals below are on your rider and mower.

If any of these decals are lost or damaged, replace them at once. See your local dealer for replacements.

These decals are easily applied and will act as a constant visual reminder to you, and others who may use the equipment, to follow the safety instructions necessary for safe, effective operation.



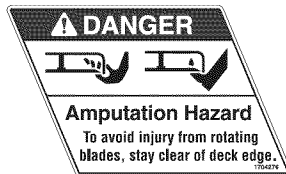
**Decal, Danger**  
Part No. 7104224



**Decal, Warning**  
Part No. 1734273



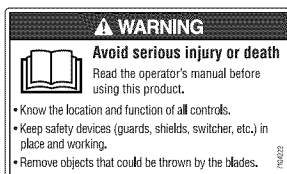
**Decal, Caution**  
Part No. 7104393



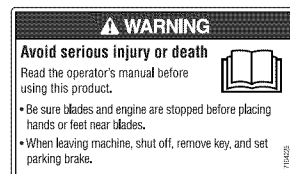
**Decal, Danger**  
Part No. 1704276



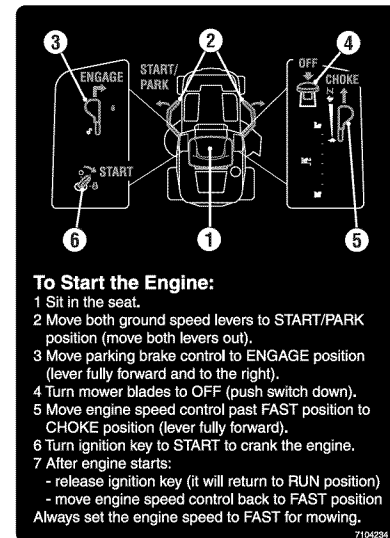
**Decal, Danger**  
Part No. 1704277



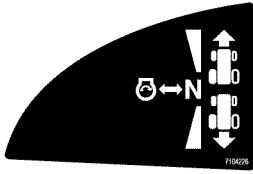
**Decal, Warning**  
Part No. 7104223



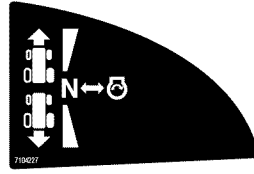
**Decal, Warning**  
Part No. 7104225



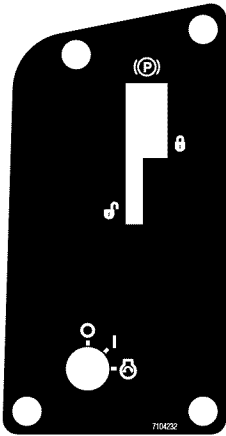
**Decal, Instructional**  
Part No. 7104234



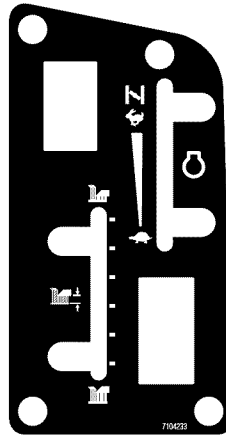
Decal, Ground Speed Lever, L.H.  
Part No. 7104226



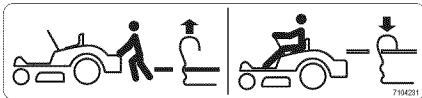
Decal, Ground Speed Lever, R.H.  
Part No. 7104227



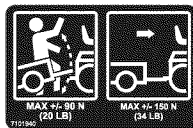
Decal, Control Panel, L.H.  
Part No. 7104232



Decal, Control Panel, R.H.  
Part No. 7104233



Decal, Transmission Release  
Part No. 7104231



Decal, Weight Limit  
Part No. 7101940

## Safety Interlock System Tests

This unit is equipped with a Safety Interlock System. Do not attempt to bypass or tamper with the switches/devices.

### TEST 1 — ENGINE SHOULD NOT CRANK IF:

- PTO switch is engaged, OR
- Parking brake is disengaged, OR
- Ground speed levers are not locked in their START/PARK positions.

### TEST 2 — ENGINE SHOULD CRANK IF:

- PTO switch is NOT engaged, AND
- Parking brake is engaged, AND
- Ground speed levers are locked into their START/PARK positions.

### TEST 3 — ENGINE SHOULD SHUT OFF IF:

- Operator rises off seat with PTO engaged, OR
- Operator rises off seat with parking brake disengaged, OR
- Operator rises off seat with ground speed levers not locked in their START/PARK positions.

### TEST 4 — CHECK MOWER BLADE STOPPING TIME

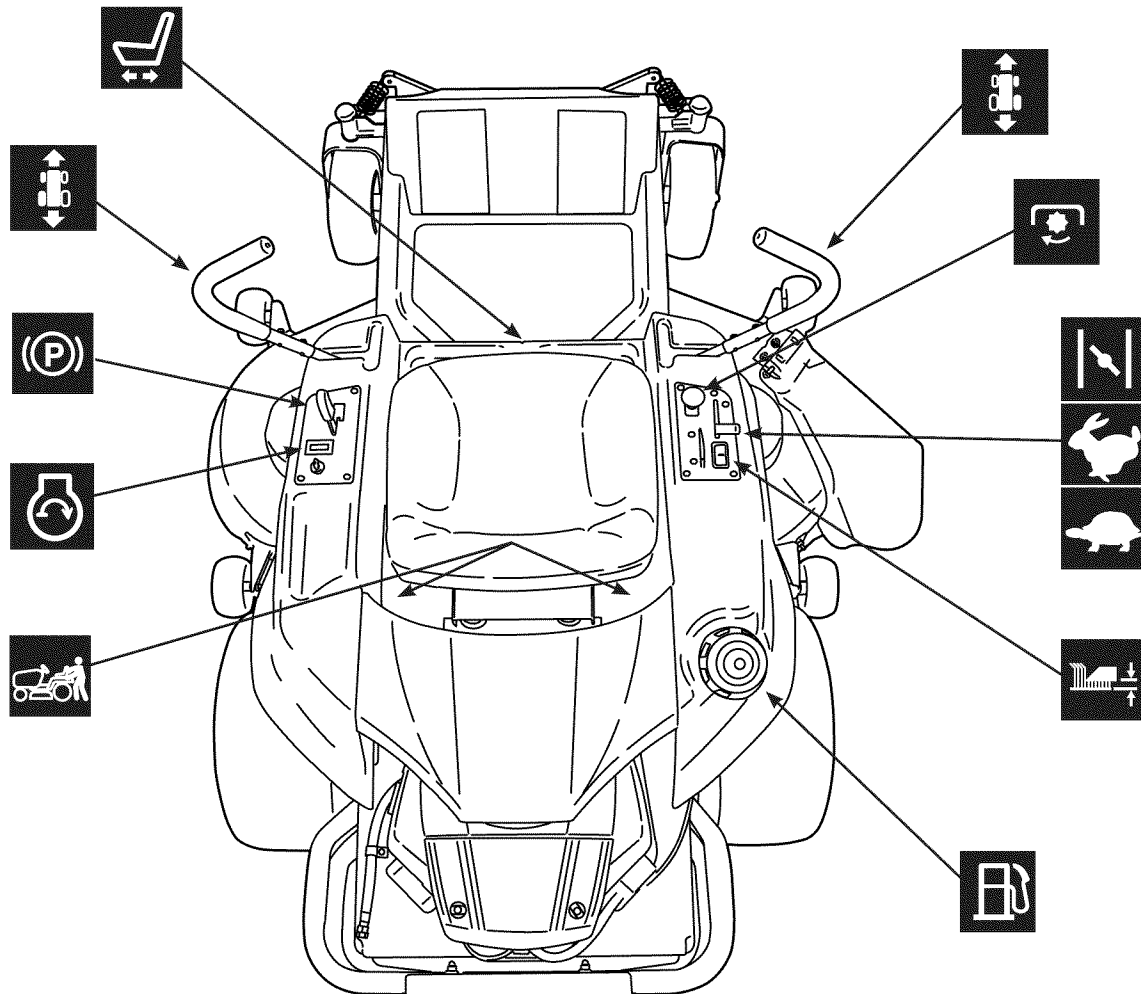
The mower blades and mower drive belt should come to a complete stop within five seconds after the electric PTO switch is turned off (or operator rises off seat). If mower drive belt does not stop within five seconds, see your dealer.

**NOTE:** Once the engine has stopped, the PTO switch must be turned off, the parking brake must be engaged, and the ground speed levers must be locked in their START/PARK positions in order to start the engine.

## **⚠️ WARNING**

If the unit does not pass a safety test, do not operate it. See an authorized dealer.

# FEATURES AND CONTROLS



## Control Functions

The information below briefly describes the function of individual controls. Starting, stopping, driving, and mowing require the combined use of several controls applied in specific sequences. To learn what combination and sequence of controls to use for various tasks see the **Operation** section.



### Ground Speed Levers

These levers control the ground speed and direction of the rider. The left lever controls the left rear drive wheel and the right controls the right rear drive wheel.

Moving a lever forward increases the FORWARD speed of the associated wheel, and pulling back on a lever increases the REVERSE speed.

The further a lever is moved away from the neutral position the faster the drive wheel will turn.

See the **Operation** section for steering instructions.






### Engine Speed / Choke Control (Choke-O-Matic)

The engine speed / choke control controls the engine speed and choke. Move the engine speed control to the FAST position to increase engine speed, and to the SLOW position to decrease engine speed. Move the engine speed / choke control past the FAST position to the CHOKE position to start a cold engine. A warm engine may not require choking.

**NOTE:** Always operate the rider with the engine speed control in the FAST position.

## Ignition Switch

The ignition switch starts and stops the engine; it has three positions:

-  OFF Stops the engine and shuts off the electrical system.
-  RUN Allows the engine to run and powers the electrical system.
-  START Cranks the engine for starting.

**NOTE:** Never leave the ignition switch in the RUN position with the engine stopped—this drains the battery.

## PTO Switch

The PTO (Power Take-Off) switch engages and disengages the mower blade clutch. To engage the PTO, pull UP on the switch. Push DOWN to disengage. Note that the operator must be seated firmly in the rider seat for the PTO to function.

## Transmission Release Levers

The transmission release levers deactivate the transmissions so that the unit can be pushed by hand (see *Pushing the Unit by Hand*).

## Seat Adjustment Lever

The seat can be adjusted forward and backward (see *Seat Adjustments*).

## Fuel Tank Cap

To remove the cap, turn counterclockwise.

## Mower Cutting Height Adjustment Switch

The mower cutting height is adjustable between 1-1/2" (3,8 cm) and 3-3/4" (9,5 cm). See *Cutting Height Adjustment*.

## Parking Brake

Moving the parking brake lever forward and to the right engages the parking brake. Moving the lever to the left and back disengages the brake.

# OPERATION

## General Operating Safety

Before first time operation:

- Be sure to read all information in the **Operator Safety** section before attempting to operate this rider and mower.
- Become familiar with all of the controls and how to stop the unit.
- Drive in an open area without mowing to become accustomed to driving the unit.

### **⚠ WARNING**

Never operate on slopes greater than 18 percent (10°).

Select slow ground speed before driving onto a slope. Use extra caution when operating on slopes with a rear-mounted grass catcher.

Mow up and down slopes, not across the face, use caution when changing directions and **DO NOT START OR STOP ON SLOPE.**

### **⚠ WARNING**

Never allow passengers to ride on the unit.

Before leaving the operator's position for any reason, lock the ground speed levers in the **START/PARK** position, engage the parking brake, disengage the PTO, stop the engine and remove the key.

To reduce fire hazard, keep the engine, rider and mower free of grass, leaves and excess grease. Do not stop or park rider over dry leaves, grass or combustible materials.

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is still hot from recent operation. Do not allow open flame, smoking or matches in the area. Avoid over-filling and wipe up any spills.

### **⚠ WARNING**

If you do not understand how a specific control functions, or have not yet thoroughly read the **Features and Controls** section, do so now. **DO NOT** attempt to operate the rider without first becoming familiar with the location and function of **ALL** controls.

## Checks Before Starting

- Check that the crankcase is filled to full mark on dipstick (**A**, Figure 1 - located under engine cover). See the engine owner's manual for instructions and oil recommendations.
- Make sure all nuts, bolts, screws and pins are in place and secure.
- Adjust the seat position (**B**), and make certain you can reach all controls from the operator's position.
- Fill the fuel tank (**C**) with fresh fuel. Refer to the engine owner's manual for fuel recommendations.

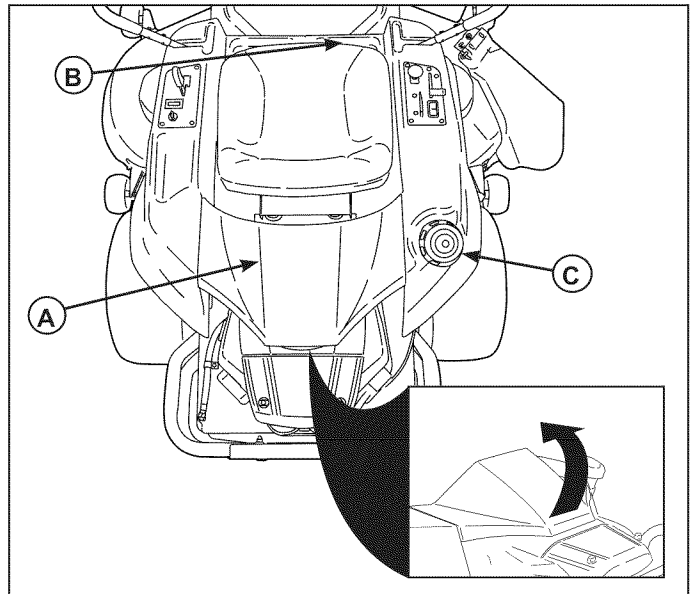
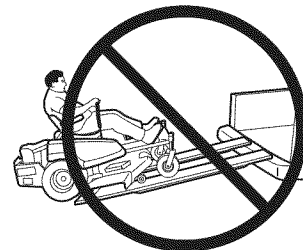


Figure 1. Pre-Start Checks

### **⚠ WARNING**

Do not load this zero-turn rider on a trailer or truck using two separate ramps. Only use a single ramp that is at least one foot wider than the width of the rear wheels of this rider. This rider has a zero turning radius and the rear wheels could fall off the ramps, or the rider could tip over injuring the operator or bystanders.



## Starting the Engine

1. While sitting in the operator's seat, make sure the PTO switch is disengaged, the parking brake is engaged, and the ground speed levers are locked in the START/PARK position.
2. Set the engine speed control to the CHOKE position.  
**NOTE:** A warm engine may not require choking.
3. Insert the key into the ignition switch and turn it to START.
4. After the engine starts, move the engine speed control back to the FAST position. Warm up the engine by running it for at least a minute before engaging the PTO switch or driving the rider.
5. **After warming the engine, ALWAYS operate the rider at FULL ENGINE SPEED when mowing.**

**In the event of an emergency the engine can be stopped by simply turning the ignition switch to STOP.** Use this method only in emergency situations. For normal engine shut down follow the procedure given in *Stopping the Rider and Engine*.

## Stopping the Rider and Engine

1. Return the ground speed levers to the middle (or neutral 'N') position to stop rider movement. Pivot the levers outward to lock them in the START/PARK position.
2. Disengage the PTO by pushing down on the PTO switch.
3. Engage the parking brake by moving the parking brake lever forward and to the right.
4. Move the engine speed control to the SLOW position and turn the ignition key to OFF. Remove the key.

## Mowing

1. Make sure the PTO switch is disengaged, the parking brake is engaged, the ground speed levers are locked in their START/PARK positions, and the operator is in the seat.
2. Start the engine (see *Starting the Engine*).
3. Set the mower cutting height (see *Cutting Height Adjustment*).
4. Set the engine speed control to FAST.
5. Disengage the parking brake.
6. Engage the PTO by pulling up on the switch.
7. Pivot the ground speed levers in from the START/PARK position to the neutral 'N' position.

8. Begin mowing. See *Operator Safety* for tips on safe mowing practices.
9. When finished, shut off the PTO.
10. Stop the engine (see *Stopping the Rider and Engine*).

## Pushing the Rider by Hand

1. Disengage the PTO, engage the parking brake, lock the ground speed levers into their START/PARK positions, turn the ignition OFF, remove the key, and wait for all moving parts to stop.
2. To disengage the transmissions, pull the roll release rods (A, Figure 2), located on either side of the engine, up into the PUSH position.
3. Disengage the parking brake.  
The rider can now be pushed by hand.
4. After moving the rider, re-engage the transmissions by pushing the roll release rods back down to the DRIVE position.



### DO NOT TOW RIDER

Towing the unit will cause transmission damage. Do not use another vehicle to push or pull this unit.

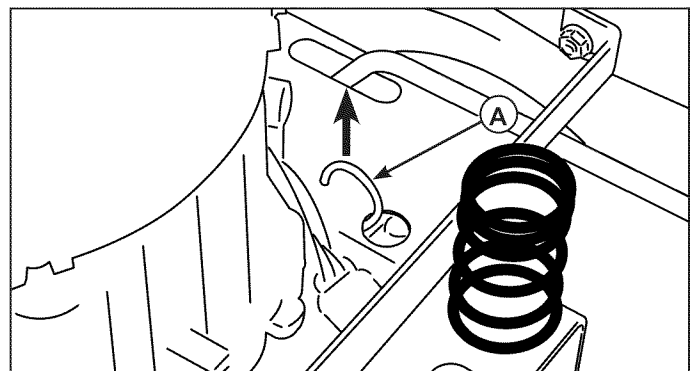


Figure 2. Roll Release Components (On Each Side)

### ⚠ WARNING

**DO NOT** disengage the transmissions and coast down slopes. **DO NOT** use Roll Release to disengage the transmissions unless machine motion can be controlled and engine is off.



## Zero Turn Driving Practice

The ground speed levers of the zero turn rider are responsive, and learning to gain a smooth and efficient control of the rider's forward, reverse, and turning movements will take some practice.

Spending some time going through the maneuvers shown and becoming familiar with how the unit accelerates, travels, and steers — before you begin mowing — is absolutely essential to getting the most out of the zero turn rider.

**Locate a smooth, flat area of your lawn** — one with plenty of room to maneuver. (Clear the area of objects, people and animals before you begin.) Operate the unit at mid-engine speed during this practice session (ALWAYS operate at full engine speed when mowing), and turn slowly to prevent tire slippage and damage to your lawn.

We suggest you begin with the Smooth Travel procedure to the right, and then advance through the forward, reverse, and turning maneuvers.

## Smooth Travel

The ground speed levers of the zero turn rider are responsive.

The BEST method of handling the ground speed levers is in three steps — as shown in Figure 3.

FIRST place your hands onto the levers as shown.

SECOND, to go forward gradually push the levers forward with your palms.

THIRD, to speed up, move the levers farther forward. To slow down smoothly, slowly move the levers toward neutral.

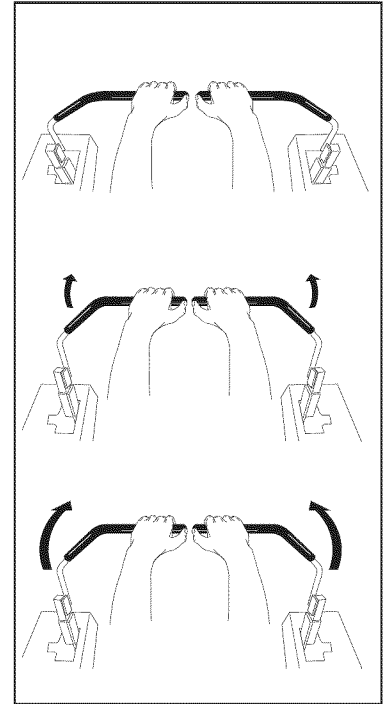


Figure 3. Move Ground Speed Levers Gradually

## Basic Driving

### Forward Travel Practice

Gradually move both ground speed levers — evenly FORWARD from neutral. Slow down and repeat.

Straight forward travel takes practice. If necessary, top speed can be balance-adjusted — see **Speed Balancing Adjustment** section.

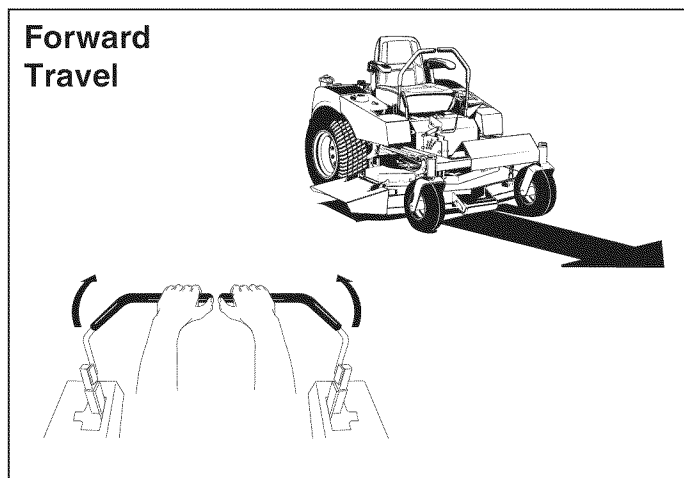


Figure 4. Forward Travel

### Reverse Travel Practice

LOOK DOWN & BEHIND, then gradually move both ground speed levers evenly BACK from neutral. Slow down and repeat.

Practice backing up for several minutes before attempting to do so near objects. The rider turns as sharply in reverse as when going forward, and backing up straight takes practice.

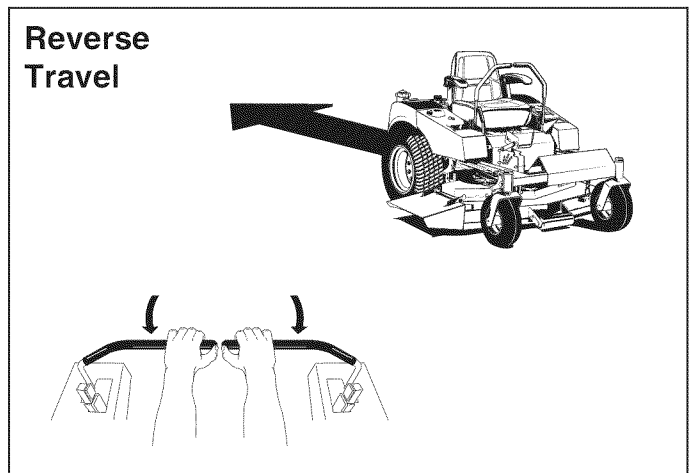


Figure 5. Reverse Travel

## Practice Turning Around a Corner

While traveling forward allow one lever to gradually return back toward neutral. Repeat several times.

To prevent pivoting directly on the tire tread, it is best to keep both wheels going at least slightly forward.

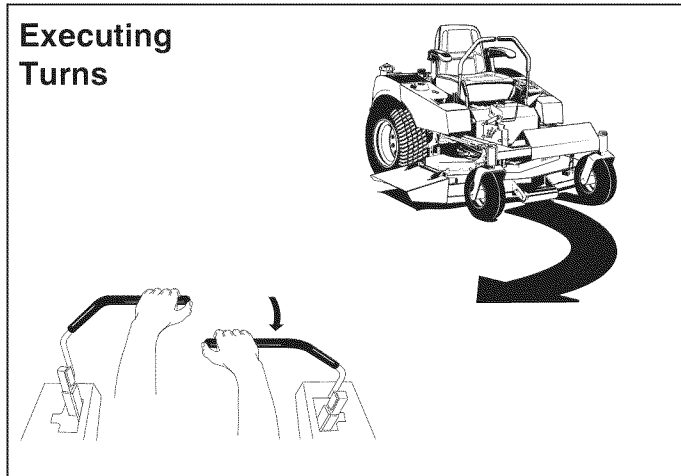


Figure 6. Turning Around a Corner

## Practice Turning In Place

To turn in place, “zero turn,” gradually move one ground speed lever forward from neutral and one lever back from neutral simultaneously. Repeat several times.

Changing the amount each lever is pulled — forward or back, changes the “pivot point” you turn on.

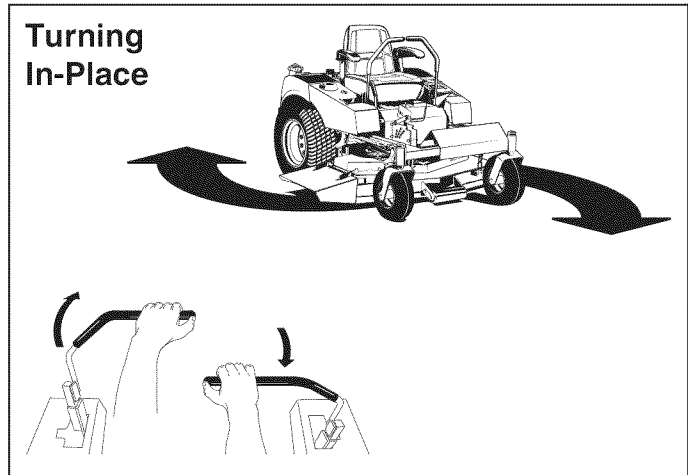


Figure 7. Turning in Place

## Advanced Driving

### Executing an End-Of-Row Zero Turn

Your zero turn rider's unique ability to turn in place allows you to turn around at the end of a cutting row rather than having to stop and Y-turn before starting a new row.

For example, to execute a right end-of row zero turn:

1. Slow down at the end of the row.
2. Move the LEFT ground speed lever forward slightly while moving the RIGHT ground speed lever back to center and then slightly back from center.
3. Begin mowing forward again.

This technique turns the rider RIGHT and slightly overlaps the row just cut — eliminating the need to back up and re-cut missed grass.

As you become more familiar and experienced with operating the zero turn rider, you will learn more maneuvers that will make your mowing time easier and more enjoyable.

**Remember, the more you practice, the better your control of the rider will be!**

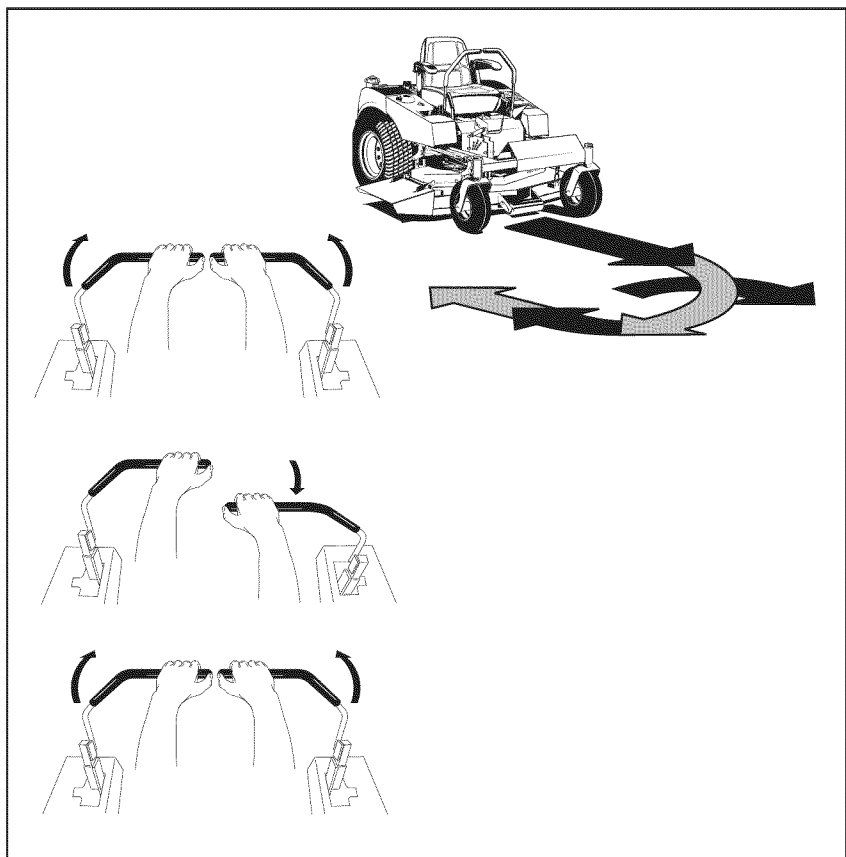


Figure 8. Executing an End-Of-Row Turn

## Attaching a Trailer

The maximum weight of a towed trailer should be less than 200 lbs (91 kg). Secure the trailer with an appropriately sized clevis pin (A, Figure 9) and clip (B).

Excessive towed loads can cause loss of traction and loss of control on slopes. Reduce towed weight when operating on slopes. The surface being driven on greatly impacts traction and stability. Wet or slippery surfaces can greatly reduce traction and the ability to stop or turn. Carefully evaluate the surface conditions before operating the unit and trailer, and never operate on slopes greater than 10°. See **Protection Against Tipovers and Towing** in the **Operator Safety** section of this manual.

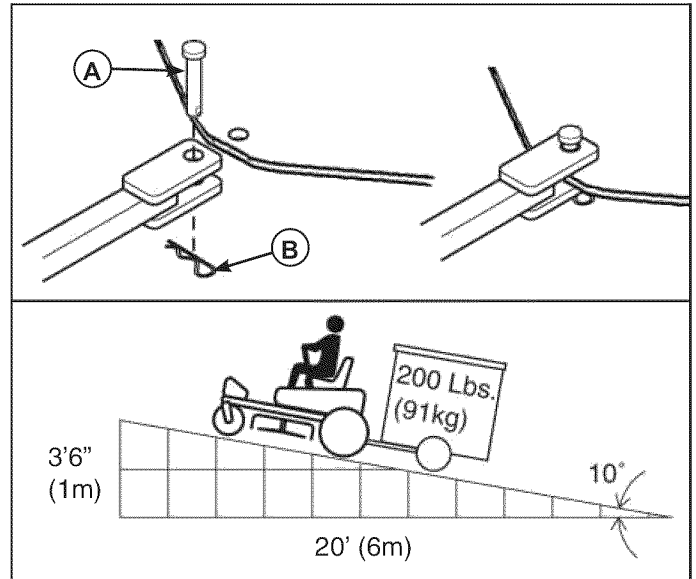


Figure 9. Trailer Weight Recommendations

# MAINTENANCE

## Maintenance Chart

RIDER AND MOWER
<b>Every 8 Hours or Daily</b>
Check safety interlock system
Clean debris off rider and mower deck
Clean debris from engine compartment
<b>Every 25 Hours or Annually *</b>
Check tire pressure
Check mower blade stopping time
Check rider and mower for loose hardware
<b>Every 50 Hours or Annually *</b>
Check rider brakes
<b>See Dealer Annually to</b>
Lubricate rider and mower
Clean battery and cables
Check mower blades **

\* Whichever comes first

\*\* Check blades more often in regions with sandy soils or high dust conditions.

ENGINE
<b>First 5 Hours</b>
Change engine oil
<b>Every 8 Hours or Daily</b>
Check engine oil level
<b>Every 25 Hours or Annually *</b>
Clean engine air filter and pre-cleaner **
<b>Every 50 Hours or Annually *</b>
Change engine oil
Replace oil filter
<b>Annually</b>
Replace air filter
Replace pre-cleaner
<b>See Dealer Annually to</b>
Inspect muffler and spark arrester
Replace spark plug
Replace fuel filter
Clean engine air cooling system

\* Whichever comes first

\*\* Clean more often in dusty conditions or when airborne debris is present.

## Check Tire Pressures

Tire pressure should be checked periodically, and maintained at the levels shown in the chart. Note that these pressures may differ slightly from the “Max Inflation” stamped on the side-wall of the tires. The pressures shown provide proper traction, improve cut quality, and extend tire life.

## Checking / Adding Fuel

To add fuel:

1. Remove the fuel cap.
2. Fill the tank to the bottom of the filler neck. This will allow for fuel expansion.

**NOTE:** Do not overfill. Refer to your engine manual for specific fuel recommendations.

3. Install and hand tighten the fuel cap.

## Fuel Filter

The fuel filter is located in the fuel line between fuel tank and fuel pump. If the filter is dirty or clogged, replace as follows:

1. Disconnect the negative battery cable.
2. Place a container below the filter to catch spilled fuel.
3. Using pliers, open and slide hose clamps from fuel filter (A, Figure 11).
4. Remove hoses from filter.
5. Install new filter in proper flow direction in fuel line.
6. Secure with hose clamps.
7. Reconnect the negative battery cable when finished.

## Engine Maintenance

Refer to engine manual for all engine maintenance procedures and recommendations.

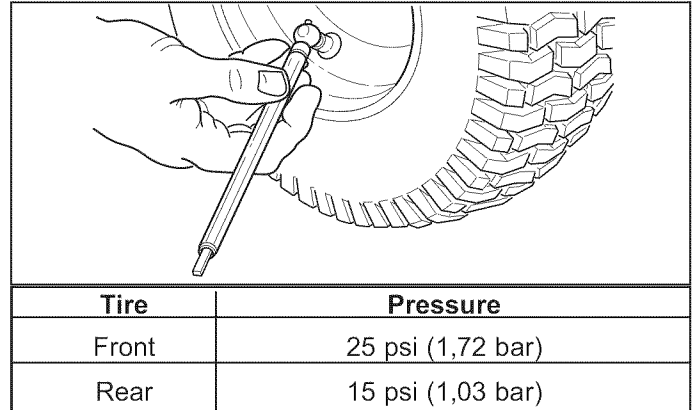


Figure 10. Checking Tire Pressure

## ⚠ WARNING

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is still hot from recent operation. Do not allow open flame, smoking or matches in the area. Avoid over-filling and wipe up any spills. Do not remove fuel filter when engine is hot, as spilled gasoline may ignite. DO NOT spread hose clamps further than necessary. Ensure clamps grip hoses firmly over filter after installation.



Do not use gasoline containing METHANOL, gasohol containing more than 10% ethanol, gasoline additives, premium gasoline, or white gas because engine/fuel system damage could result.

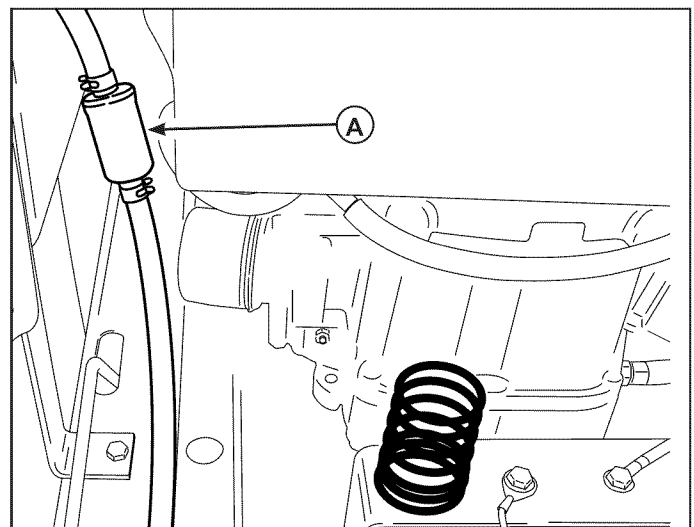


Figure 11. Fuel Filter Replacement  
(View looking back from battery compartment)

## Washing the Mower Deck

The washout port allows you to connect a typical garden hose to the trim side (L.H.) of the mower deck to remove grass and debris from the underside of the deck. This ensures proper and safe operation of the mower.

1. Park the rider on a smooth, level surface such as a concrete floor. Disengage the PTO, lock the ground speed levers into their START/PARK positions, engage the parking brake, turn off the engine, and remove the ignition key.
2. Attach the quick disconnect (A, Figure 12) to a garden hose (B), and connect to the washout port (C) on the mower deck.
3. Turn on the water.
4. Start the engine, set the mower deck in the highest cutting position, and engage the PTO to remove grass and debris from the underside of the mower deck.
5. Disengage the PTO, turn off the engine, and remove the ignition key.
6. Remove the garden hose and quick disconnect from the mower deck when cleaning is completed.

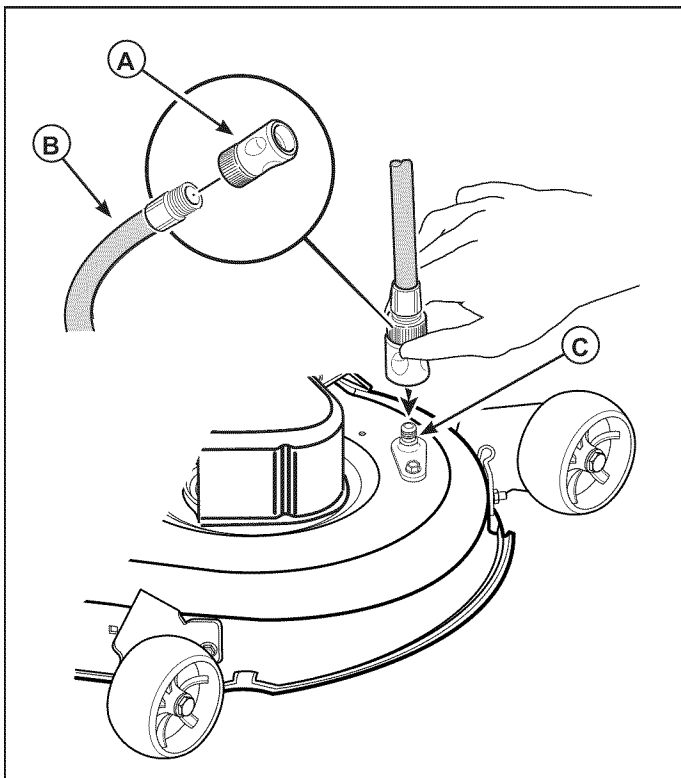


Figure 12. Mower Deck Washout Port

## **!** WARNING

**Before running the mower, make sure the hose is properly connected and does not come into contact with the blades. When the mower is running and the blades are engaged, the person cleaning the mower must be in the operator position, and there must be no bystanders. Failure to follow these precautions may result in serious injury or death.**

## Storage

Before you store your unit for the off-season, read the **Maintenance and Storage** instructions in the **Operator Safety** section, then perform the following steps:

- Disengage the PTO, move the ground speed levers into the START/PARK positions, set the parking brake, & remove the key.
- Perform engine maintenance and storage measures listed in the engine owner's manual. This includes draining the fuel system, or adding stabilizer to the fuel (do not store a fueled unit in an enclosed structure - see warning).
- Battery life will be increased if it is removed, put in a cool, dry place and fully charged about once a month. If the battery is left in the unit, disconnect the negative cable.

Before starting the unit after it has been stored:

- Check all fluid levels. Check all maintenance items.
- Perform all recommended checks and procedures found in the engine owner's manual.
- Allow the engine to warm up for several minutes before use.

## **!** WARNING

**Never store the unit (with fuel) in an enclosed, poorly ventilated structure. Fuel vapors can travel to an ignition source (such as a furnace, water heater, etc.) and cause an explosion.**

**Fuel vapor is also toxic to humans and animals.**

# ADJUSTMENTS AND SERVICE

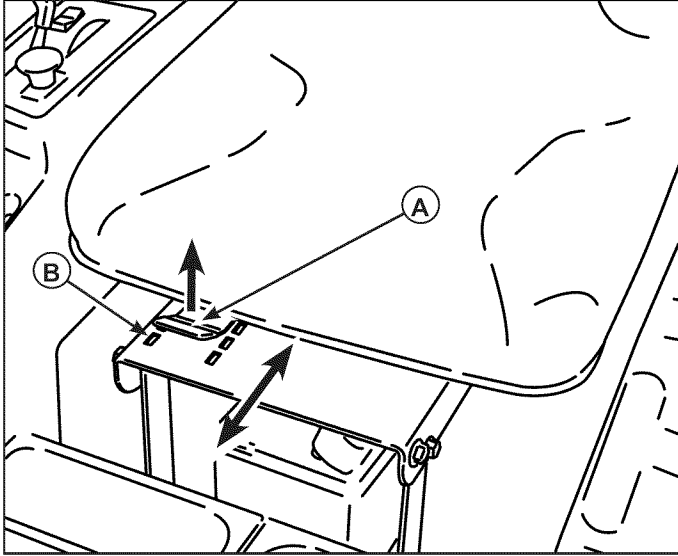


Figure 13. Seat Adjustment

## Seat Adjustments

The seat and ground speed levers should be adjusted so that operator's elbows are supported by the arm rests when his/her hands are on the controls, and the ground speed levers can be moved through their full range of motion without contacting the operator's legs.

### Seat Position Adjustment

Lift the seat adjustment lever (A, Figure 13). Slide the seat forward or backward to the desired position, then lower the seat adjustment lever. Make sure the lever locks into the locking slots (B) in the seat base.

### Ground Speed Lever Adjustment

Remove the ground speed lever mounting hardware (Figure 14) and reposition the lever either up or down from its original position. Replace the hardware.

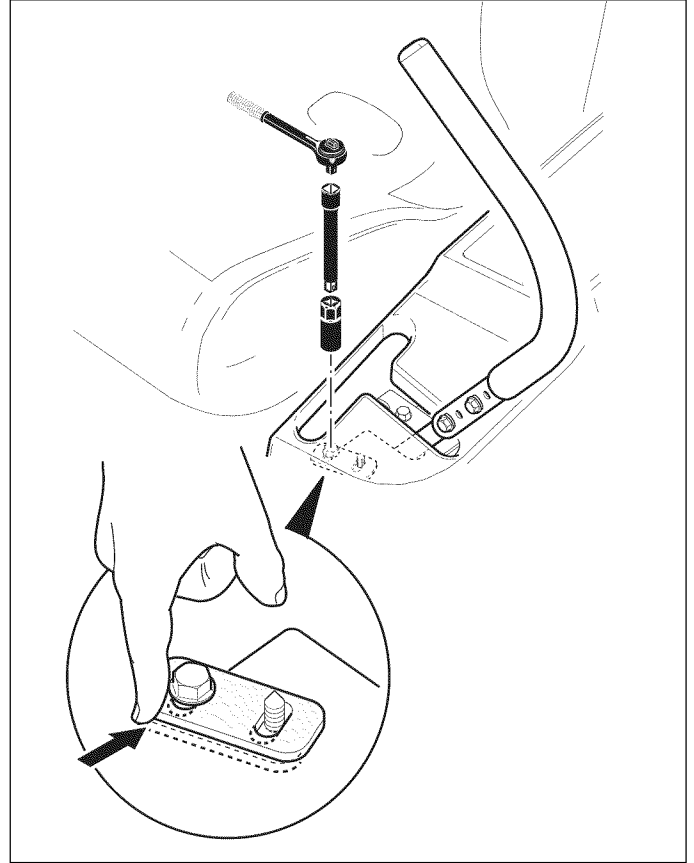


Figure 14. Ground Speed Lever Adjustments

## Speed Balancing Adjustment

If the rider drifts to the right or left when the ground speed levers are in the maximum forward position, the top speed of each of these levers can be balanced. Only adjust the speed of the wheel that is traveling faster.

### To Reduce the Speed of the Faster Wheel

1. Loosen the bolt securing the forward adjust plate (Figure 14).
2. Slide the plate up approximately 1/8".
3. Retighten the bolt and recheck speed balance.
4. Repeat steps 1-3 until adjustment is complete.

## **▲** WARNING

**DO NOT** adjust the rider for a faster overall speed forward or reverse than it was designed.

## Cutting Height Adjustment

The cutting height adjustment switch controls the mower cutting height. The cutting height is adjustable between 1-1/2" (3,8 cm) and 3-3/4" (9,5 cm).

To adjust cutting height:

Press the adjustment switch (**A**, Figure 15) forward to lower the mower deck, backward to raise the mower deck.

The slot in the cutting height indicator (**B**) indicates the cutting height of the mower deck.

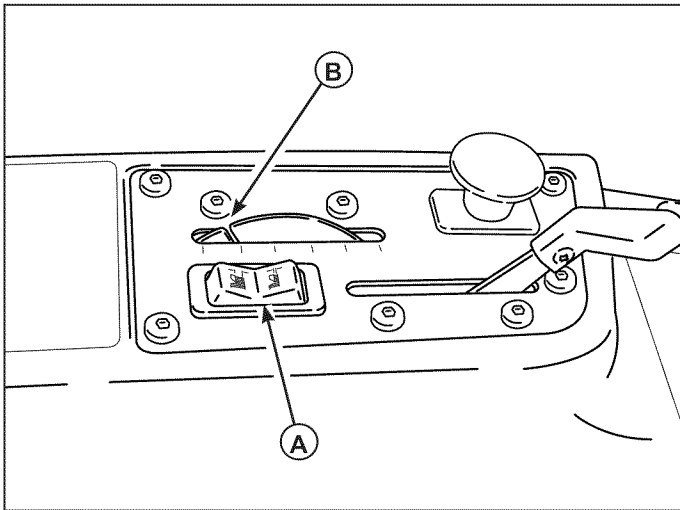


Figure 15. Cutting Height Adjustment

## Mower Removal and Installation

**NOTE:** Perform mower installation and removal on a hard flat surface such as a concrete floor.

### Removal

1. Disengage the PTO, engage the parking brake, lock the ground speed levers into their START/PARK positions, turn off the ignition, remove the key, and wait for all moving parts to stop.
2. Place a 2 x 4 or similar support under each end of the mower deck, then lower the mower deck to its lowest position. See **Cutting Height Adjustment**.
3. Pull back on the tensioning idler (**F**, Figure 16) in the direction indicated by the arrow, and remove the mower belt from the PTO pulley (**C**).

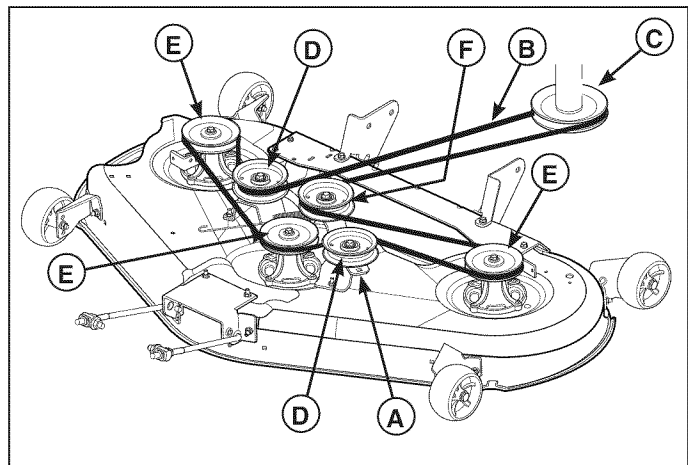


Figure 16. Mower Belt Routing

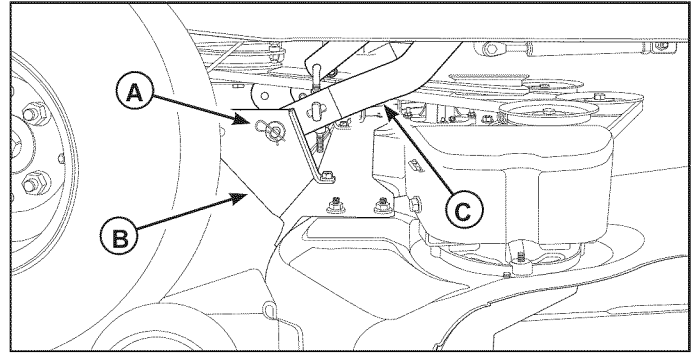
4. Remove the hairpin clips and washers (**A**, Figure 17) securing the rear mower deck brackets (**B**) to the rear lift arms (**C**), and pull the arms out from the holes in the brackets. Retain all removed hardware.
5. Remove the hairpin clips and washers (**A**, Figure 18) securing the front mower deck bracket (**B**) to the front lift rods (**C**), and pull the rods out from the holes in the bracket. Retain all removed hardware.
6. Pivot the front wheels out of the way and slide the mower deck out from under the unit.



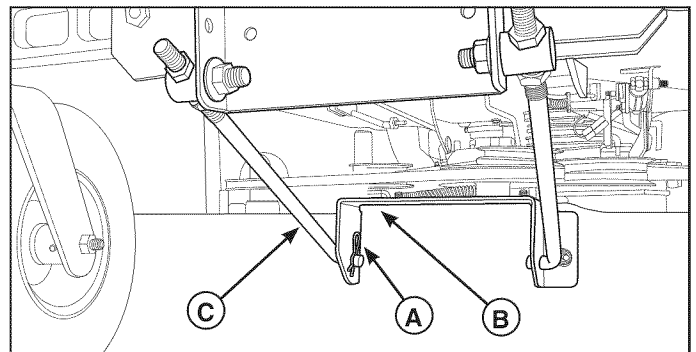
## Installation

1. Disengage the PTO, engage the parking brake, lock the ground speed levers into their START/PARK positions, turn off the ignition, remove the key, and wait for all moving parts to stop.
2. Lower the mower deck to its lowest position (see **Cutting Height Adjustment**).
3. Pivot the front wheels out of the way and slide the mower deck under the unit. Place a 2 x 4 or similar support under each end of the mower deck.
4. Insert the front lift rods (C, Figure 18) into the bottom holes in the front mower deck bracket (B), and secure each with a washer and hairpin clip (A).
5. Insert the rear lift arms (C, Figure 17) into the front holes in the rear mower deck brackets (B), and secure each with a washer and hairpin clip (A).
6. Pull back on the tensioning idler (D, Figure 16) in the direction indicated, and install the belt onto the PTO pulley as shown in Figure 16.

**Important:** Be sure the belt is installed properly onto all pulleys.



**Figure 17. Rear Deck Lift Components**  
(Right side shown, left side same)



**Figure 18. Front Deck Lift Components**  
(Right side shown, left side same)

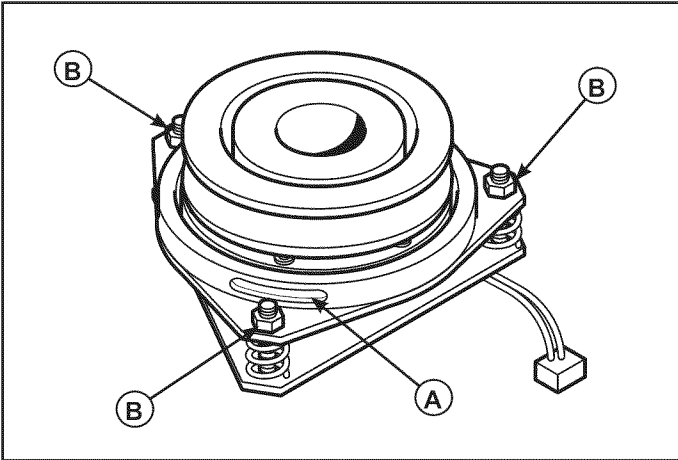


Figure 19. PTO Clutch Adjustment

### PTO Clutch Adjustment

Check the PTO clutch adjustment after the initial 25 hour break-in period and then after every 250 hours of operation. Also perform the following procedure if the clutch is slipping or will not engage, or if a new clutch has been installed.

1. Remove key from ignition switch and disconnect spark plug wires to prevent the possibility of accidental starting while the PTO is being adjusted.
2. Note the position of the 3 adjustment windows (A, Figure 19) in the side of the brake plate and the nylock adjustment nuts (B).
3. Insert a .016"-.018" (0,40-0,45 mm) feeler gauge (C) through each window, positioning the gauge between the rotor face and the armature face as shown in Figure 20.
4. Alternately tighten the adjustment nuts (B, Figure 19) until the rotor face and armature face just contacts the gauge.
5. Check the windows for an equal amount of tension when the gauge is inserted and removed, and make any necessary adjustments by tightening or loosening the adjustment nuts.

**NOTE:** The actual air gap between the rotor and armature may vary even after performing the adjustment procedure. This is due to dimensional variations on component parts, and is an acceptable condition.

6. Check the mower blade stopping time. The mower blades and mower drive belt should come to a complete stop within 5 seconds after the electric PTO switch is turned off.

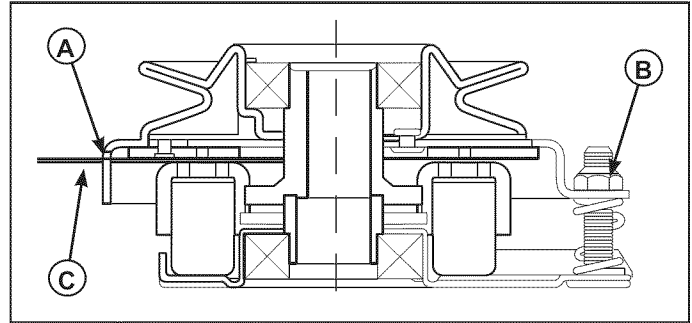


Figure 20. Adjust PTO Clutch

### **⚠️ WARNING**

To avoid serious injury, perform adjustments only with engine stopped, key removed and rider on level ground.

### Check Mower Blade Stopping Time

Mower blades and mower drive belt should come to a complete stop within 5 seconds after electric PTO switch is turned off.

1. With parking brake engaged, PTO disengaged and an operator in the seat, start the engine.
2. Have an assistant observe the mower drive belt through the opening between the frame and top of mower deck. Engage the PTO and wait several seconds. Disengage the PTO and check the amount of time it takes for the mower drive belt to stop.
3. If the mower drive belt does not stop within 5 seconds, see an authorized dealer.

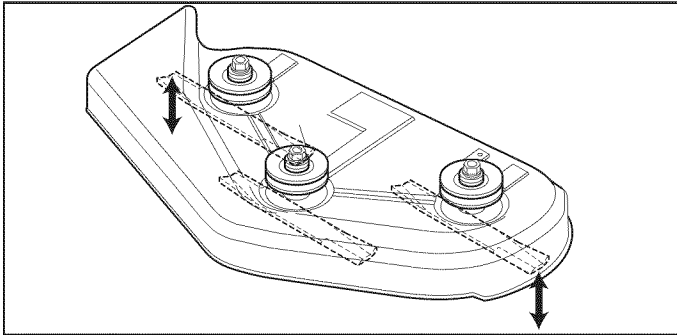


Figure 21. Orient Blades Side-to-Side

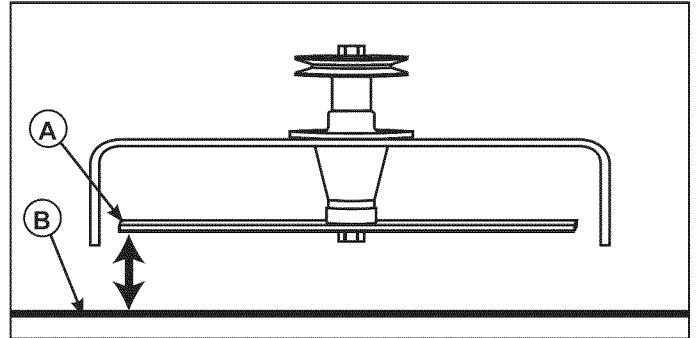


Figure 22. Measure Blade Tips to Ground

## Mower Deck Leveling

Perform these adjustments on a flat level surface. Be sure to check and adjust tire pressures before leveling the mower deck.

### Side-To-Side Leveling

1. With the mower installed, place the rider on a smooth, level surface such as a concrete floor. Turn the front wheels so they are straight.
2. Check for bent blades and replace if necessary.
3. Set the cutting height to mid position. Arrange the outside mower blades so that they are pointing from side-to-side (Figure 21).
4. Measure the distance between the outside tips of each blade (A, Figure 22) and the ground (B). If there is more than 1/8" (3 mm) difference between the measurements on each side, proceed to step 5. If the difference is 1/8" (3mm) or less, proceed to step 6.
5. Side-to-side leveling is accomplished using the threaded rod (A, Figure 23) and trunnion (B) on the right and left rear sides of the mower deck. Loosen the jam nuts (C) and adjust the nuts up or down to adjust the mower level. When complete, tighten the jam nuts against the trunnion to lock the adjustment in place.

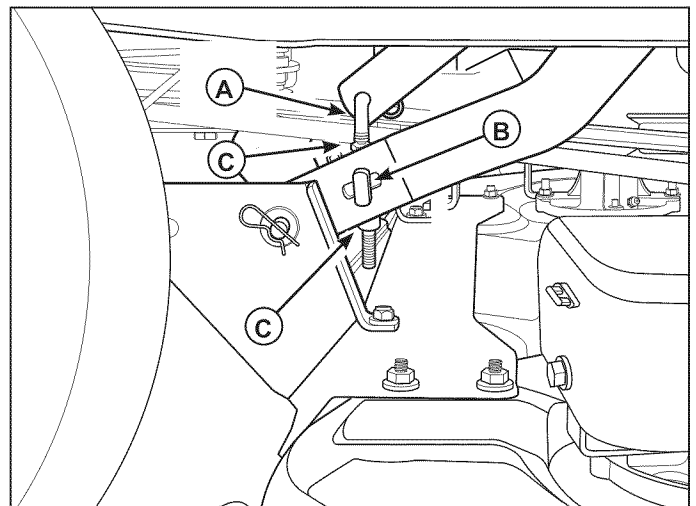


Figure 23. Mower Leveling - Side-to-Side (Right side shown, left side hidden)

### Front-To-Back Leveling

6. Arrange the blades so they face front-to-back (Figure 24).
7. Measure the distance from the ground to the front tip of the center blade and from the ground to the rear tip of the rear blades (Figures 22 & 24). The front tip of the front blade should be 1/8" - 1/4" (3 - 6 mm) lower than the rear tips of the rear blades. If not, proceed with steps 8 - 9.
8. The front hitch rods (A, Figure 25) are used to adjust front-to-back leveling. To raise or lower the front of the mower deck, loosen the rear jam nuts (B) on both front hitch rods. Adjust the front jam nuts (C) on both hitch rods to adjust the mower deck level. When adjusted correctly, tighten the rear jam nuts to lock the front hitch rods in place.
9. Re-check the blade measurement, then repeat steps 7 - 9 as necessary.

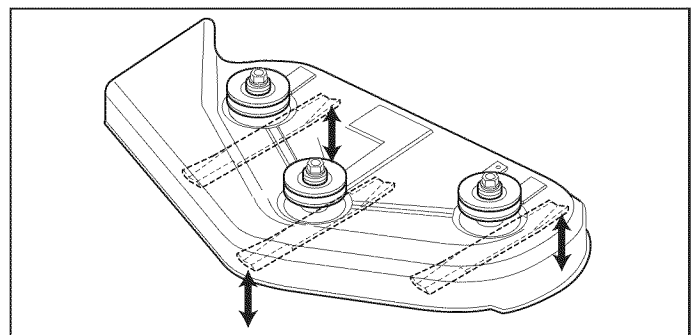


Figure 24. Orient Blades Front-to-Back

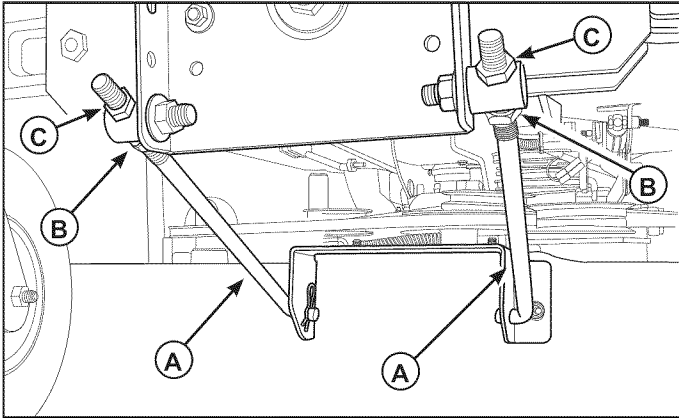


Figure 25. Mower Leveling - Front-to-Back

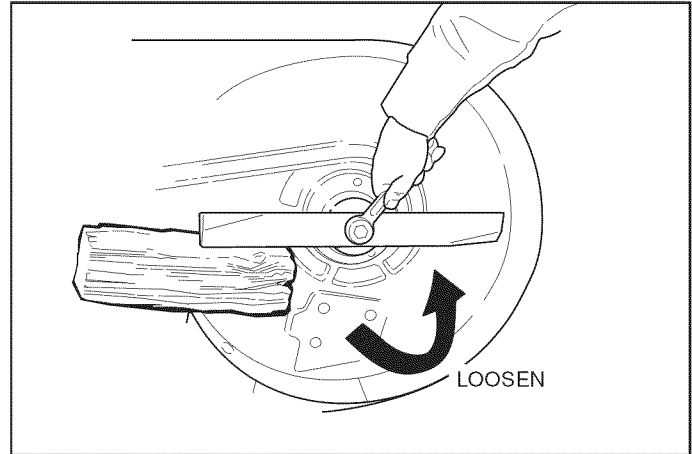


Figure 26. Blade Removal

### Servicing the Mower Blades

1. Remove mower deck (see *Mower Removal and Installation*).
2. To remove blade for sharpening, use a block of wood (A, Figure 28) to prevent blade rotation while loosening the hardware.
3. Remove the bolt (C), blade washer (B), and blade.
4. Use a file to sharpen blade to a fine edge. If blade is damaged, it must be replaced.
5. Balance the blade as shown in Figure 27. Center the blade's hole on a nail lubricated with a drop of oil. A balanced blade will remain level.
6. Reinstall the blade (Figure 28) with the tabs pointing up toward the mower deck as shown.
7. Reinstall the blade washer (B, Figure 28), concave side up, and bolt (C). Use a wooden block (A) to prevent blade rotation while tightening the hardware. Torque hardware to 50-60 ft-lbs (68-81 Nm).

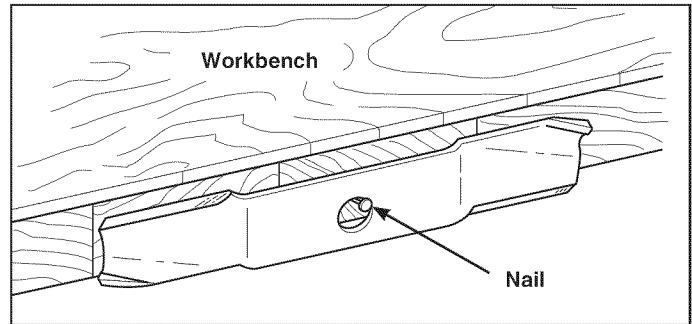


Figure 27. Balancing the Blade

### **! WARNING**

For your personal safety, blade mounting hardware must be installed with the blade washer, then securely tightened to 50-60 ft-lbs (68-81 Nm).

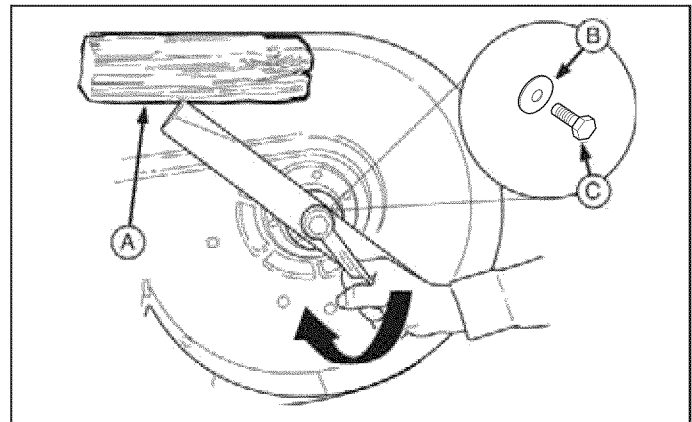


Figure 28. Blade Installation

### **! WARNING**

For your personal safety, do not handle the sharp mower blades with bare hands. Careless or improper handling of blades may result in serious injury.

## Lubrication

Lubricate the unit at the points shown in Figure 29, as well as the others listed in this section.

### Grease:



- front caster wheel axles
- front caster spindle bosses
- front axle center pivot
- mower blade spindles \*
- mower deck idler arm
- mower deck lift motor screw (located up under right fender)

Use grease fittings when present. Disassemble parts to apply grease to moving parts when grease fittings are not installed.

Not all greases are compatible. Use automotive-type lithium grease.

\* Some blade spindles have grease fittings above the mower deck, while others have grease fittings below the deck.

### Oil:



- ground speed lever pivot points
- discharge chute hinge
- deck lift pivot points

Generally, all moving metal parts should be oiled where contact is made with other parts. Keep oil and grease off belts and pulleys. Remember to wipe fittings and surfaces clean both before and after lubrication.

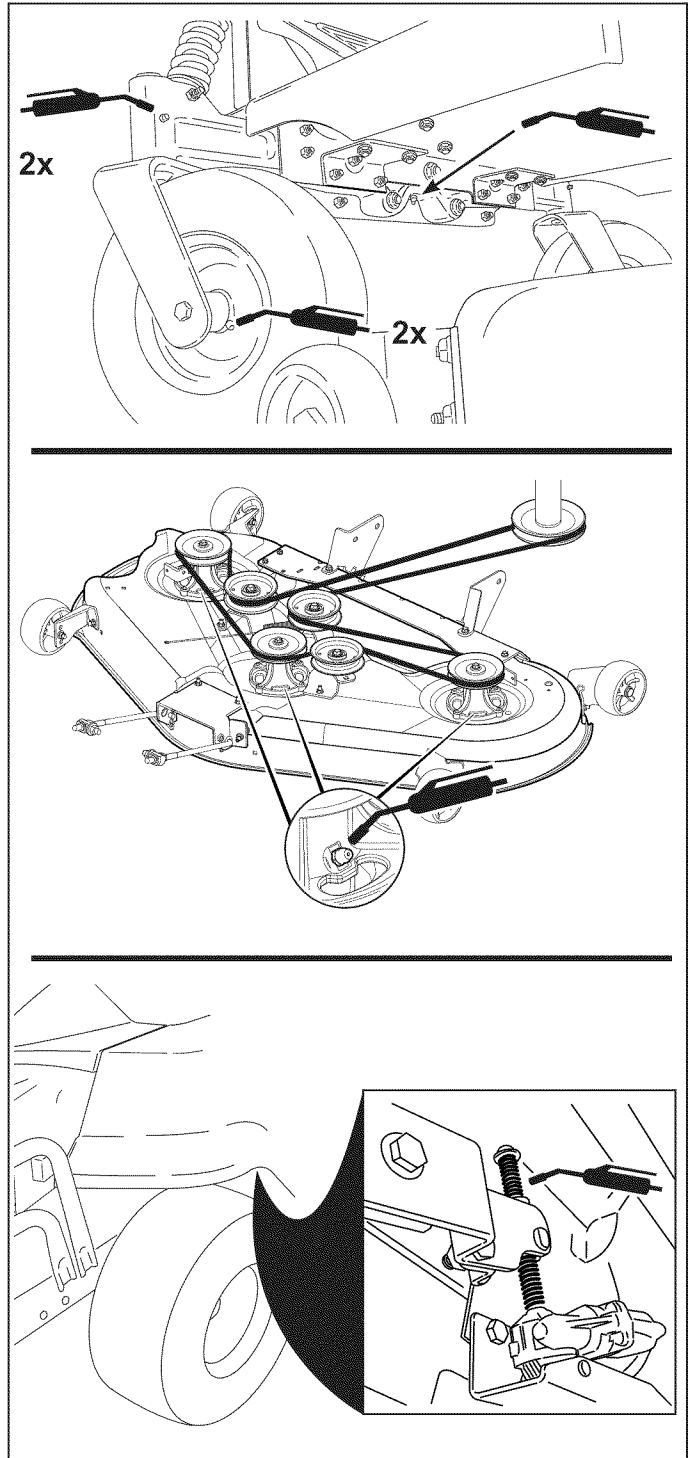


Figure 29. Lubrication Points (Grease)

## Cleaning the Battery and Cables

1. Disconnect the cables from the battery, negative cable first (**C**, Figure 30).
2. Clean the battery terminals and cable ends with a wire brush until shiny.
3. Reinstall the battery and reattach the battery cables, positive cable first (**A**).
4. Coat the cable ends and battery terminals with petroleum jelly or non-conducting grease.
5. Be sure to replace the terminal cover (**B**) over the positive battery terminal.

## Battery Charging

A dead battery or one too weak to start the engine may be the result of a defect in the charging system or other electrical component. If there is any doubt about the cause of the problem, see your dealer. If you need to replace the battery, see **Cleaning the Battery and Cables** section.

To charge the battery, follow the instructions provided by the battery charger manufacturer as well as all warnings included in the safety section of this book. Remove the battery from the rider and place on a level, non-concrete surface. Charge the battery at 6-10 amps for 1 hour. Do not charge at a rate higher than 10 amps.

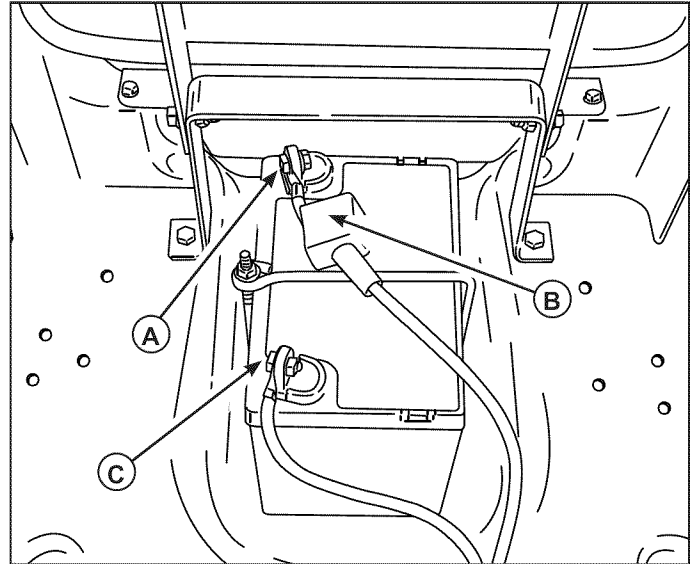


Figure 30. Battery Compartment

### **!** WARNING

Be careful when handling the battery. Keep flames and sparks away from the battery. When removing or installing battery cables, disconnect the negative cable **FIRST** and reconnect it **LAST**. If not done in this order, the positive terminal can be shorted to the frame by a tool.

### **!** WARNING

Keep open flames and sparks away from the battery; the gasses coming from it are highly explosive. Ventilate the battery well during charging.

# TROUBLESHOOTING

## Troubleshooting the Rider

PROBLEM	LOOK FOR	REMEDY
<b>Engine will not turnover or start.</b>	Ground speed levers not in START/PARK positions.	Lock ground speed levers in START/ PARK positions.
	PTO (electric clutch) switch in ON position.	Place in OFF position.
	Out of fuel.	If engine is hot, allow it to cool, then refill the fuel tank.
	Parking brake disengaged.	Engage parking brake.
	Fuel valve closed (if equipped).	Open fuel valve.
	Engine flooded.	Open the choke.
	Gas is old or stale.	Drain fuel and replace with fresh fuel.
	Battery terminals require cleaning.	Clean the battery terminals.
	Battery discharged or dead.	Recharge or replace.
	Wiring loose or broken.	See authorized service dealer.
	Solenoid or starter motor faulty.	See authorized service dealer.
	Safety interlock switch not working.	See authorized service dealer.
	Spark plug(s) faulty, fouled or incorrectly gapped.	Clean and gap or replace. (See engine manual.)
	Water in fuel.	Drain fuel and refill with fresh fuel.
	Circuit breaker blown.	See authorized service dealer.
<b>Engine starts hard or runs poorly.</b>	Fuel mixture too rich.	Clean air filter. Check the choke.
	Spark plug faulty, fouled, or incorrectly gapped.	Clean and gap or replace. (See engine manual.)
	Fuel filter dirty.	Replace fuel filter.
<b>Engine knocks.</b>	Low oil level.	Check/add oil as required.
	Using wrong grade oil.	See engine manual.
<b>Excessive oil consumption.</b>	Engine running too hot.	See engine fins, blower screen, and air cleaner.
	Using wrong grade oil.	See engine manual.
	Too much oil in crankcase.	Drain excess oil.
<b>Engine exhaust is black.</b>	Dirty air filter.	Replace air filter. (See engine manual.)
	Engine choke control is in closed position.	Open choke control.
<b>Engine runs, but rider will not drive.</b>	Transmission(s) disengaged.	Unlock roll release rod(s).
	Belt is broken.	See authorized service dealer.
	Drive belt slips.	See authorized service dealer.
	Brake is not fully released.	See authorized service dealer.
	Internal transmission problem.	See authorized service dealer.

PROBLEM	LOOK FOR	REMEDY
Rider drive belt slips.	Pulleys or belt greasy or oily.	Clean as required.
	Belt stretched or worn.	See authorized service dealer.
Brake will not hold.	Brake components worn or damaged.	See authorized service dealer.
	Internal transmission problem.	See authorized service dealer.
Rider steers or handles poorly.	Steering linkage is loose.	Check and tighten any loose connections.
	Improper tire inflation.	See <b>Maintenance</b> section.

## Troubleshooting the Mower

PROBLEM	LOOK FOR	REMEDY
Mower will not raise.	Mower deck not properly installed.	Unlock roll release rod(s).
	Deck lift components damaged.	See authorized service dealer.
Mower cut is uneven.	Mower not leveled properly.	See Mower Adjustment.
	Rider tires not inflated equally or properly.	See <b>Maintenance</b> section.
Mower cut is rough looking.	Engine speed too slow.	See engine speed control to FAST.
	Ground speed too fast.	Decrease ground speed.
	Blades are dull.	Sharpen or replace blades. See Servicing the Mower Blades.
	Mower drive belt slipping because it is oily or worn.	See authorized service dealer.
	Blades not properly fastened to spindles.	See Servicing the Mower Blades.
Engine stalls easily with mower engaged.	Engine speed too slow.	Set engine speed control to FAST.
	Ground speed too fast.	Decrease ground speed.
	Cutting height set too low.	Cut tall grass at maximum cutting height during first pass.
	Discharge chute jamming with cut grass.	Cut grass with discharge pointing toward previously cut area.
Excessive mower vibration.	Blade mounting hardware is loose.	Tighten to 50-60 ft-lbs (68-81 Nm).
	Mower blades, spindles, or pulleys are bent.	See authorized service dealer.
	Mower blades are out of balance.	Remove, sharpen, and balance blades. See Servicing the Mower Blades.
	Blade installed incorrectly.	See authorized service dealer.
Excessive belt wear or breakage.	Bent or rough pulleys.	See authorized service dealer.
	Using incorrect belt.	See authorized service dealer.
Mower drive belt slips or fails to drive.	Idler pulley spring broken or not properly attached.	See authorized service dealer.
	Mower drive belt broken.	See authorized service dealer.



# SPECIFICATIONS

## Engine:

### 26 HP Briggs & Stratton

<b>Make</b>	Briggs & Stratton
<b>Model</b>	26 hp Platinum Twin
<b>Horsepower</b>	26 @ 3500 rpm
<b>Displacement</b>	44.0 cu in. (724 cc)
<b>Electrical System</b>	Battery 12 Volt, 230 CCA Alternator 16 amp
<b>Oil Capacity</b>	64 oz (1,9 L) w/Filter

## Chassis:

<b>Fuel Tank</b>	Capacity: 3.0 Gallons (11,4 L)
<b>Rear Wheels</b>	Tire Size: 18 x 9.50-8 Inflation Pressure: 15 psi (1,03 bar)
<b>Front Wheels</b>	Tire Size: 11 x 4.00-5 Inflation Pressure: 25 psi (1,72 bar)

## Transmissions:

<b>Make</b>	Hydro Gear
<b>Model</b>	ZC-AUBB-2ADB-1DPX (LH) ZC-DUBB-2ADC-1DPX (RH)
<b>Type</b>	EZT
<b>Hydraulic Fluid</b>	Sealed Unit
<b>Speeds</b>	Forward: 0-6 MPH (0-9.66 km/h)
<b>@ Specified rpm</b>	Reverse: 0-3 MPH (0-4.83 km/h)

## Dimensions:

<b>Overall Length</b>	75" (191 cm)
<b>Overall Width</b>	61" (155 cm)
<b>Height</b>	39" (99 cm)
<b>Weight (approx.)</b>	554 lbs (252 kg)

## Parts and Accessories

See an authorized dealer.

## Engine Power Rating Information

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

# WARRANTY

## CRAFTSMAN TWO YEAR FULL WARRANTY

FOR TWO YEARS from the date of purchase, if any non-expendable part of this riding equipment fails due to a defect in material or workmanship, visit [www.craftsman.com](http://www.craftsman.com) or call 1-800-659-5917 to arrange for free in-home repair.

The frame and front axle will be repaired free of charge for five years from the date of purchase if defective in material or workmanship.

In all cases, if repair proves impossible, the riding equipment will be replaced free of charge with the same or an equivalent model.

The battery will be replaced free of charge for 90 days from the date of purchase if defective in material or workmanship (our testing proves that it will not hold a charge).

This warranty is void if this product is ever used while providing commercial services or if rented to another person.

**This warranty covers ONLY defects in material and workmanship. Warranty coverage does NOT include:**

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

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

Sears Brands Management Corporation, Hoffman Estates, IL 60179

# REPAIR PROTECTION AGREEMENT

*Congratulations on making a smart purchase.*

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

**Here's what the Repair Protection Agreement\* includes:**

- ☑ **Expert service** by our 10,000 professional repair specialists
- ☑ **Unlimited service and no charge** for parts and labor on all covered repairs
- ☑ **Product replacement** up to \$1500 if your covered product can't be fixed
- ☑ **Discount of 10%** from regular price of service and related installed parts not covered by the agreement; also, 10% off regular price of preventive maintenance check
- ☑ **Fast help by phone** – we call it Rapid Resolution – phone support from a Sears representative. Think of us as a “talking owner's manual.”

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

The Repair Protection Agreement is a risk-free purchase. If you cancel for any reason during the product warranty period, we will provide a full refund. Or, a prorated refund anytime after the product warranty period expires. Purchase your Repair Protection Agreement today!

**Some limitations and exclusions apply. For prices and additional information in the U.S.A. call 1-800-827-6655.**

**\*Coverage in Canada varies on some items. For full details call Sears Canada at 1-800-361-6665.**

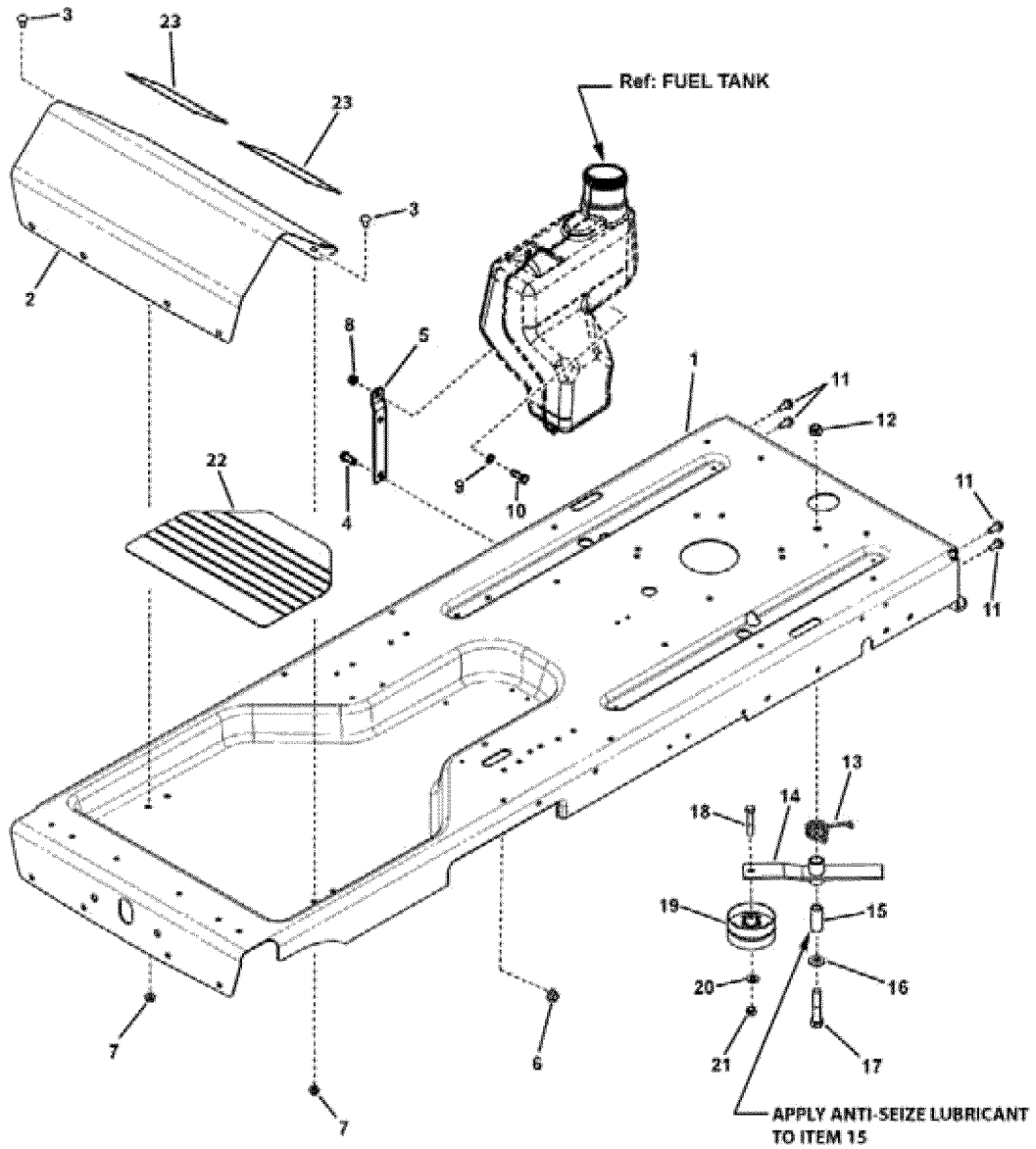
**Sears Installation Service**

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



# Repair Parts

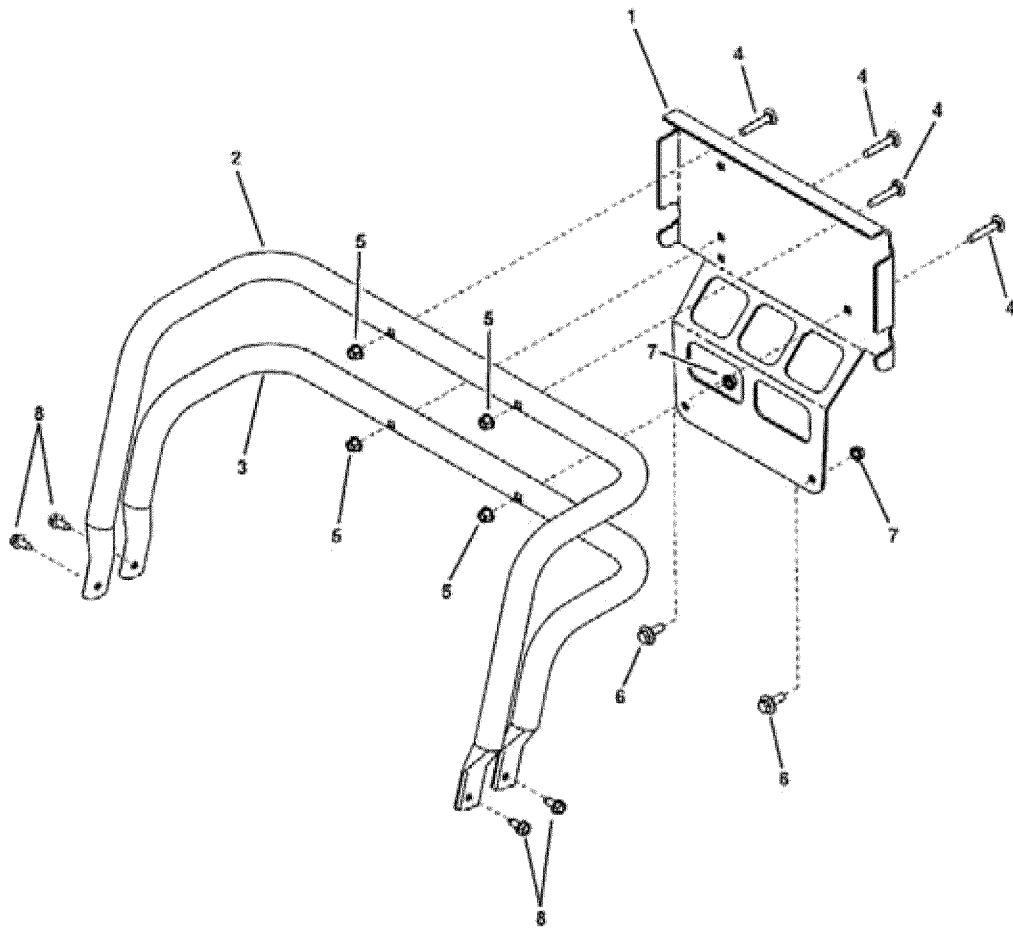
NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	7301073BNYP	1	FRAME, RZT
2	7300140BNYP	1	FOOTREST
3	7090799SM	2	BOLT, 5/16-18 x 5/8" Round Head Short Square Neck Carriage, GR 5
4	7091086YP	1	SCREW, 3/8-16 x 3/4" Hex Head Cap, GR 5 ZP
5	7301110BMYP	1	BRACKET, Support, Fuel Tank
6	1931211SM	1	NUT, 3/8-16 Hex Flange lock, GR F, BZ
7	7091601SM	2	NUT, 5/16-18, Hex Flange Lock, GR 5
8	7091298YP	1	NUT, 5/16-18- Nyloc, YZ
9	017X47MA	1	WASHER, .34 x .62 x 16 Ga, Flat
10	7027168SM	1	SCREW, 5/16-18 x 1" Hex Head Cap, GR 5, YZ
11	7091541SM	4	SCREW, 5/16-18 x 3/4" Hex Washer Self-Tap, YZ
12	7091894SM	1	NUT, 1/2-13 Hex Center Lock, GR 5, YZ
13	7044760SM	1	SPRING, Torsion, RH Wind
14	7400208BMYP	1	WELDMENT, Hydro Idler MY08
15	7200034SM	1	SPACER, Hydro Idler
16	7091587SM	1	WASHER, .531 x 1.062 x .121, Flat, YZ (SAE)
17	7091218SM	1	SCREW, 1/2-13 x 2-1/2", Hex Head Cap, GR 5 (Black Phosphate)
18	7091305SM	1	SCREW, 3/8-16 x 2" Hex Head Cap, GR 5, YZ
19	7100103SM	1	IDLER, 3.25" OD x .391 ID x 1.63, Backside
20	7090122YP	1	WASHER, 3/8" Flat (SAE)
21	7091585SM	1	NUT, 3/8-16 Hex Center Lock, YZ
22	7103830YP	1	MAT, Floor Pan, RZT
23	7014048YP	2	FOOT PAD, Wide

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.





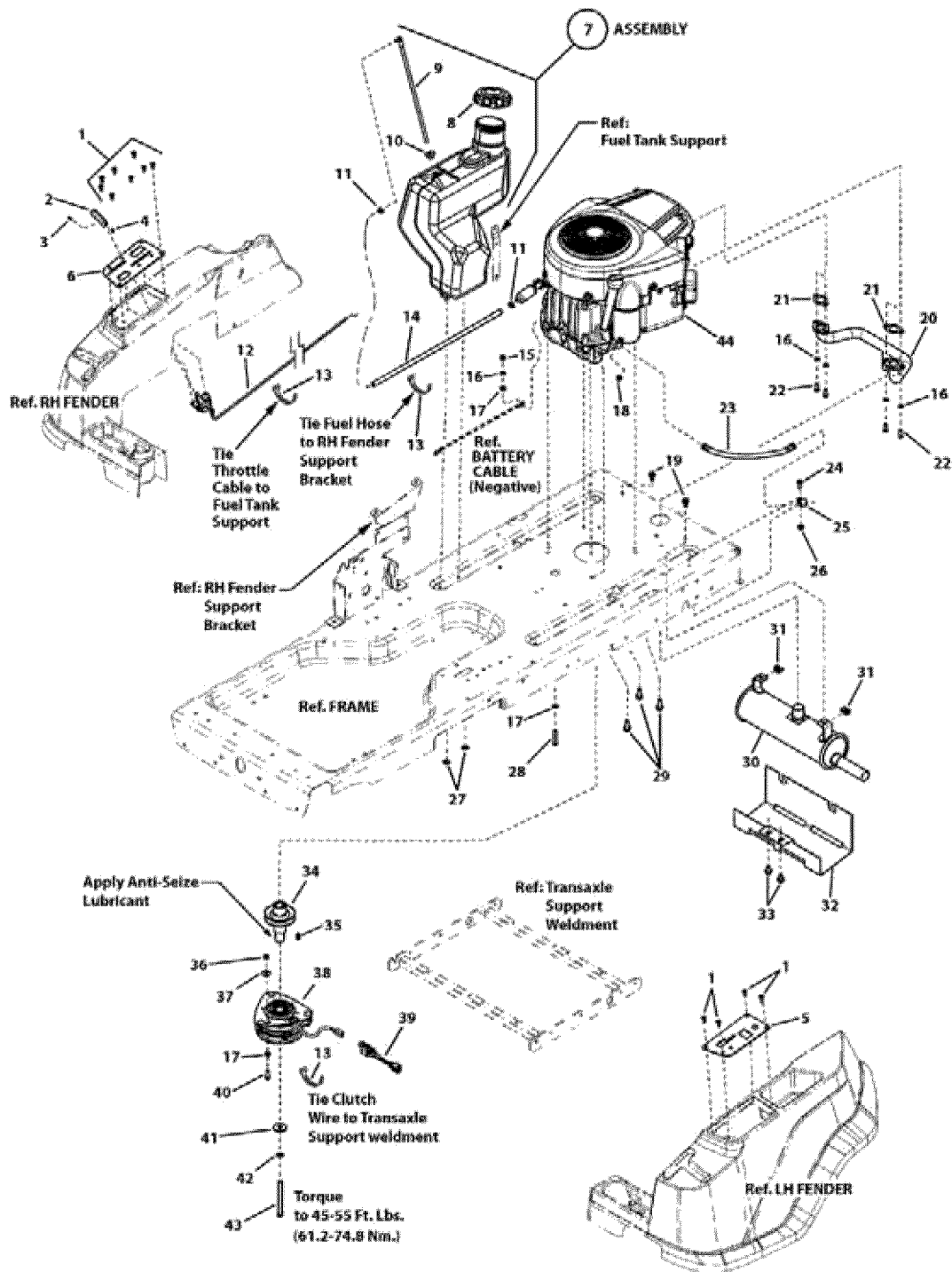
**Rear Bumper Assembly**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	7301121BNYP	1	PLATE, Brand
2	7301123BMYP	1	TUBE, Bumper, Upper, 285Z
3	7301124BMYP	1	TUBE, Bumper, Lower, 285Z
4	1931338SM	4	BOLT, 5/16-18 x 1-3/4" Round Head Short Square Neck
5	1960686SM	4	NUT, 5/16-18 Hex Flange Nyloc
6	1716654SM	2	BOLT, Shoulder
7	1927557SM	2	NUT, 5/16-18 Hex Flange Lock, Large, Black
8	1664847SM	4	SCREW, 5/16-18 x 3/4" Hex Washer Head Self-Tap, Black

Footnotes

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

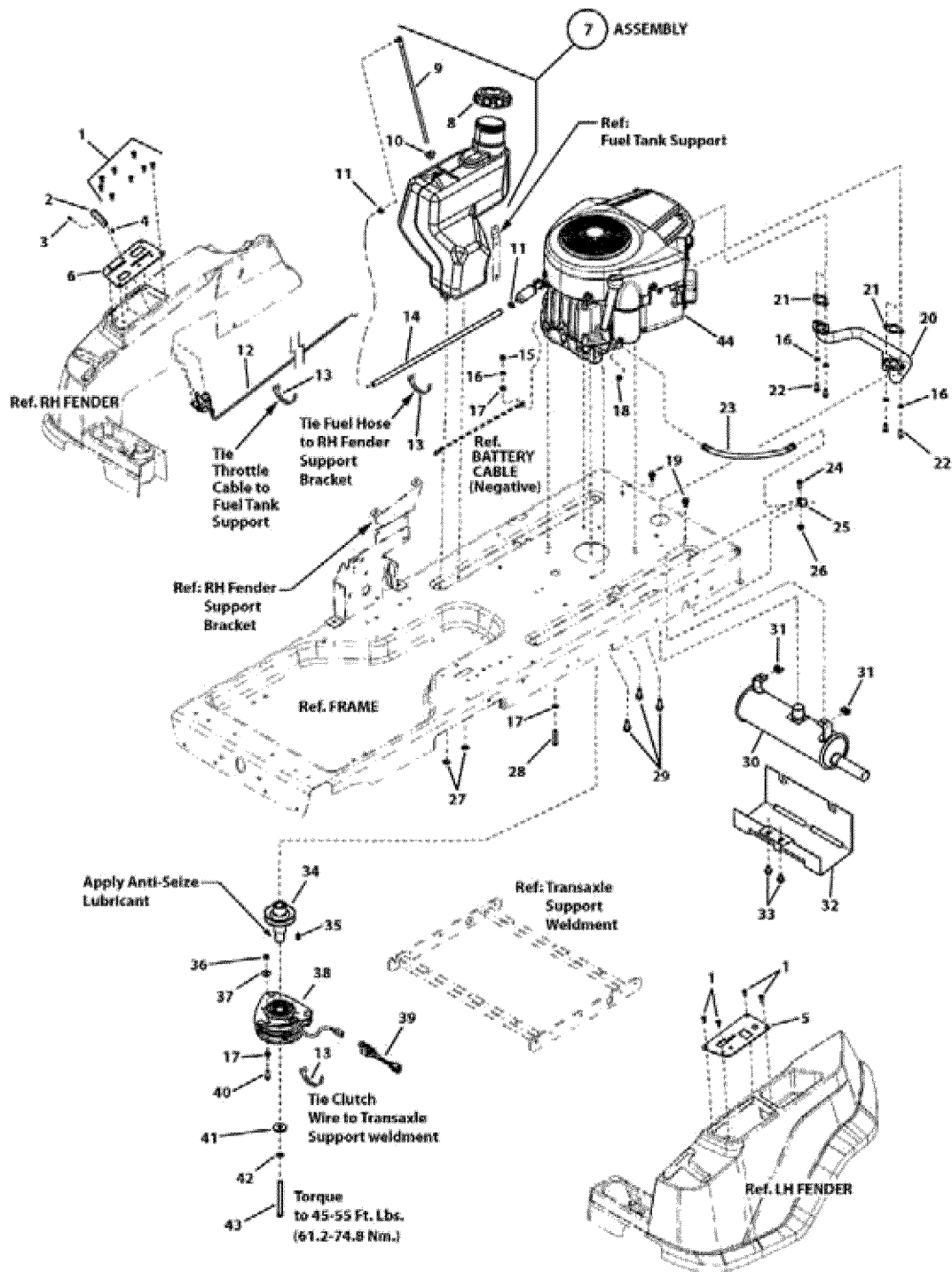


REF NO	PART NO.	QTY.	DESCRIPTION
1	7090999SM	12	SCREW, Pan Head Taptite Torx, 1/4-20 x 5/8
2	7103888YP	1	KNOB, Throttle, Red
3	7091017YP	1	SCREW, #8-32 x 3/8" Cross Recess Filister Head, GR 2
4	7091018YP	1	NUT, #8-32 Hex, GR 2B
5	7301084BMYP	1	PANEL, Control, LH
6	7301093BMYP	1	PANEL, Control, RH
7	7103815YP	1	ASSEMBLY, Fuel Tank, 3 Gallon (Incl. Ref. 8, 9 & 10)
8	1715917SM	1	CAP, Fuel Tank (Included with Ref. No. 7)
9	7103536YP	1	ASSEMBLY, Fuel Hose (Included with Ref. No. 7)
10	1726400SM	1	BUSHING, Fuel (Included with Ref. No. 7)
11	7029900SM	2	CLAMP, Fuel Hose
12	7103771YP	1	ASSEMBLY, Throttle, Choke-A-Matic, B&S V-Twin
13	7012080SM	4	CABLE TIE, 7"
14	7200140YP	1	HOSE, Fuel
15	7091511SM	1	NUT, 5/16-18 Hex, GR 5 or B, YZ
16	7091315SM	5	WASHER, 5/16" Split Lock
17	7090188SM	3	WASHER, 5/16" Flat
18	7091584SM	1	NUT, 1/4-20 Hex Flange Lock, GR 5, YZ
19	1930591SM	2	SCREW, 5/16-18 x 3/4" Hex Flange Lock, Black
20	7103414YP	1	MANIFOLD, B&S V-Twin
21	1731214SM	2	GASKET, Exhaust B&S Reg (No Chre) 273485
22	7091738SM	4	SET SCREW, 5/16-18 x 3/4" Socket Head, GR 8 Black
23	1726498SM	1	HOSE, Oil Drain
24	7091318SM	1	SCREW, 5/16-18 x 3/4" Hex Head Cap, GR 5, YZ
25	7900020SM	1	HARNESS CLIP, 5/8"
26	7091601SM	1	NUT, 5/16-18 Flange Lock, YZ
27	7013847YP	2	RETAINER, 3/8" Bolt
28	7091908YP	1	SCREW, 5/16-18 x 1-3/4" Hex Head Cap, GR 5 YZ
29	7090324SM	3	SCREW, 3/8-16 x 1" Hex Washer Self-Tap
30	7103411YP	1	MUFFLER, RZT
31	1935255SM	2	SPEEDNUT, 5/16 -18, Lug Type .025/.150 B
32	7301083YP	1	HEAT SHIELD, Muffler
33	7091198SM	2	SCREW, 3/8-16 x 5/8" Hex Washer Self-Tap
34	7043343SM	1	ASSEMBLY, Engine Pulley
35	7016755YP	1	KEY, 1/4" Square x 3/4"
36	7091575SM	1	NUT, 5/16-18 Hex Center Lock, YZ
37	7011763SM	1	FENDER WASHER, 5/16"
38	1717664SM	1	CLUTCH, Ogura JD-11
39	1737462YP	1	HARNESS, Jumper
40	7091904YP	1	SCREW, 5/16-18 x 7/8" Hex Head Cap, GR 5, YZ
41	7029138SM	1	WASHER, .468 ID x 1-1/2" OD x .188 Flat, YZ
42	7091301YP	1	WASHER, 7/16" Split Lock, YZ
43	7092130SM	1	SCREW, 7/16-20 x 4-1/2" Hex Head Cap, GR 5

**Footnotes**

Note: \* Purchase engine parts from engine manufacturer dealer.

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



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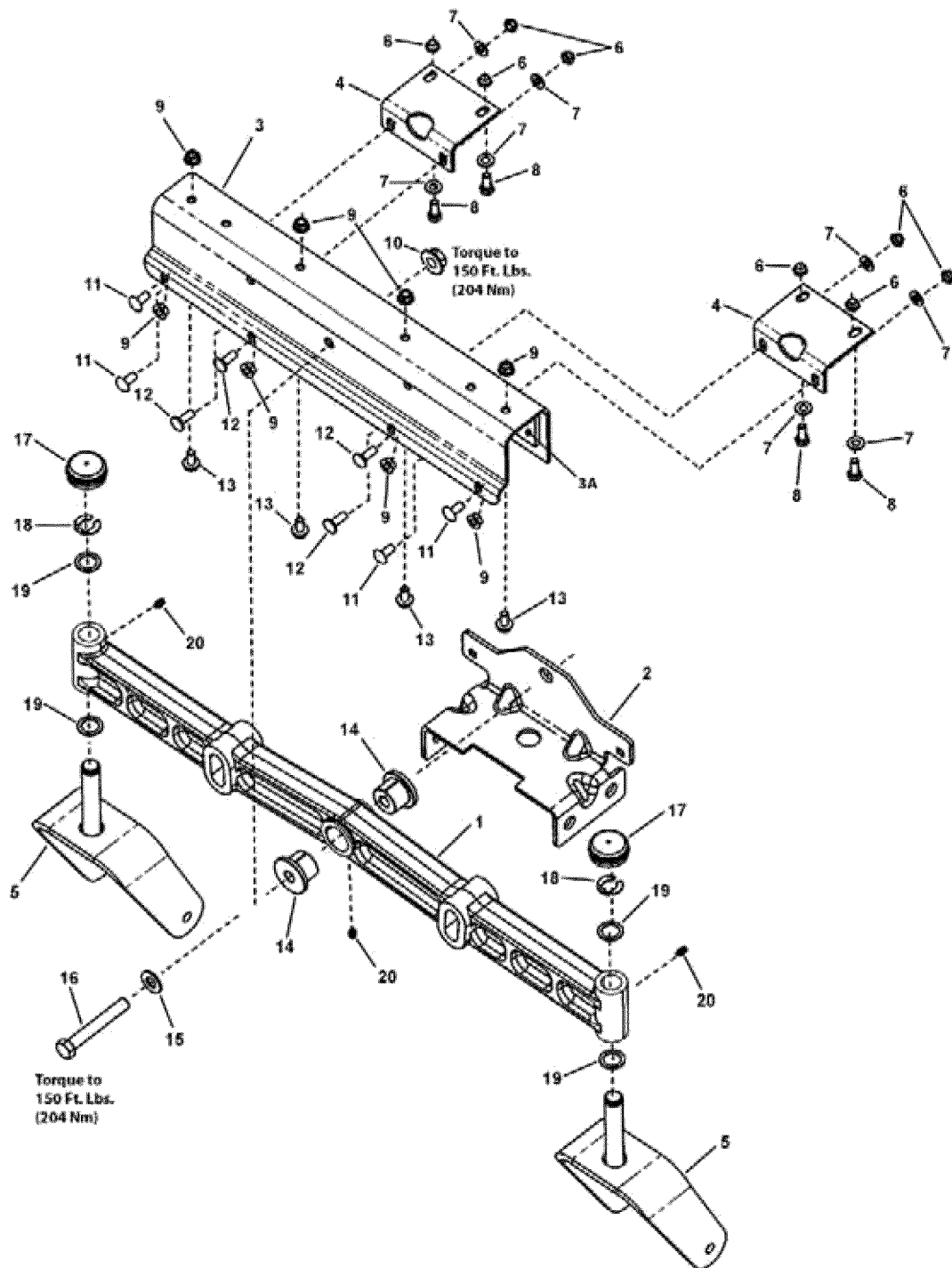
<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
44	445877-0132-B1	1	* ENGINE, 26 HP, B&S V-Twin

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**Footnotes**

Note: \* Purchase engine parts from engine manufacturer dealer.

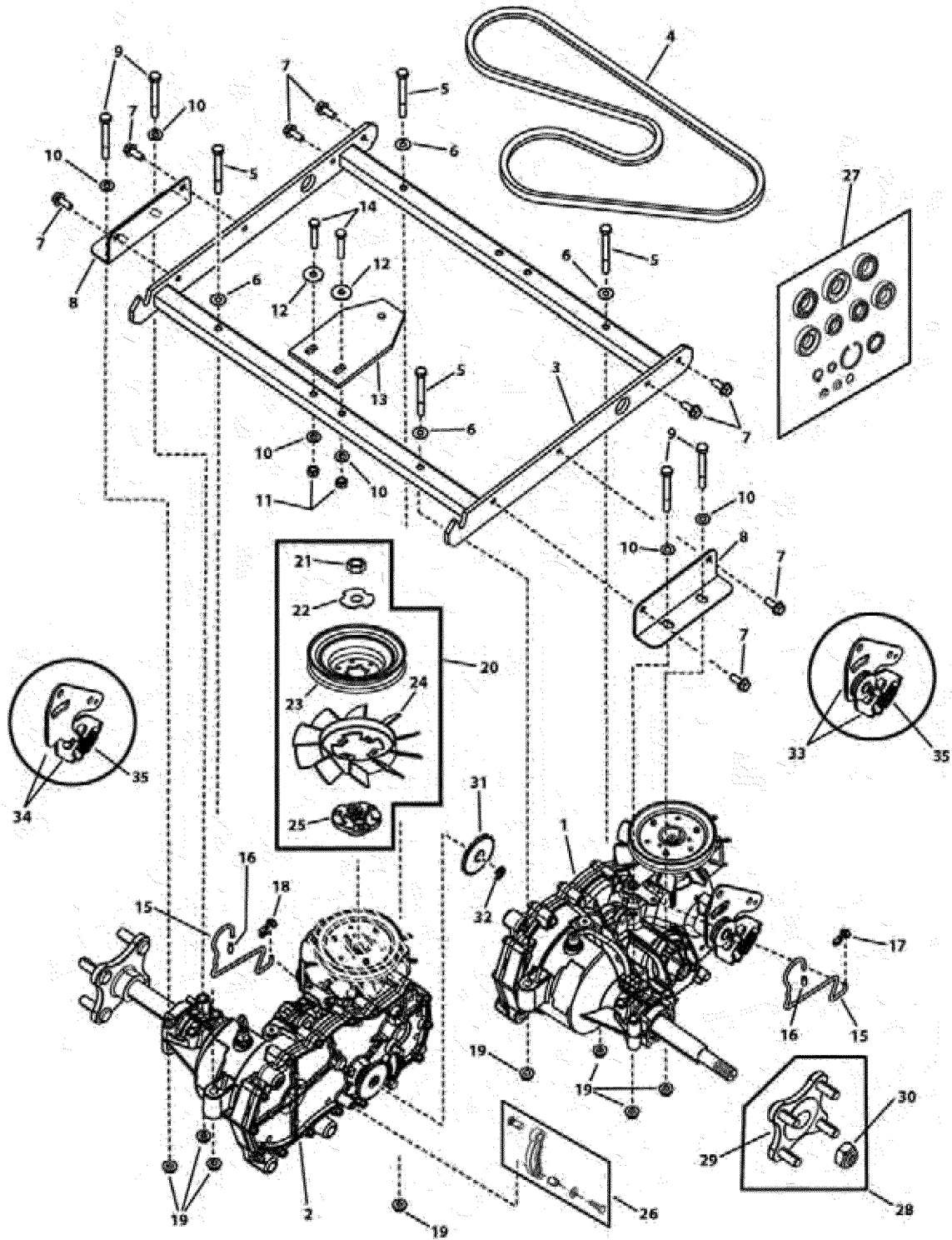
NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	1733426ASM	1	AXLE, Front Iron Casting Machined ZT
2	7301096BMYP	1	BRACKET, Hanger, Front
3	7301076BMYP	1	BRACKET, Axle
3A	7103773YP	2	PLATE, Friction, Adhesive Backed
4	7300004BMYP	2	BRACKET, Axle Support
5	1733448BMYP	2	WELDMENT, Caster Yoke & Spindle, Sears- Black
6	7091706SM	8	NUT, 5/16-18 Hex Top Lock, GR B
7	7090188SM	8	WASHER, 5/16" Flat
8	7091318SM	4	SCREW, 5/16-18 x 3/4" Hex Head Cap, GR 5, YZ
9	7091601SM	8	NUT, 5/16-18 Flange Lock, YZ
10	1930644SM	1	NUT, 1/2-13 Hex Flange Two-Way Lock Black
11	7091508SM	4	BOLT, 5/16-18 x 3/4" Round Head Short Square Neck, GR 5, YZ
12	1931334SM	4	BOLT, 5/16-18 x 7/8" Round Head Short Square Neck, GR 5, Black
13	7091811SM	4	BOLT, 5/16-18 x 5/8" Hex Flange lock, GR 5, YZ
14	7103454YP	2	BUSHING, Axle Pivot
15	7091587SM	1	WASHER, 1/2" Flat (SAE)
16	7091558SM	1	SCREW, 1/2-13 x 3-1/2" Hex Head Cap, YZ
17	1734135SM	2	HUB CAP, 1.481 I.D x .62 Long Red Poly
18	1611710SM	2	RING, Klipring External for .750 Dia. Shaft Bln
19	1960160SM	4	WASHER, 0.750 ID x 1.60 OD x .05 Thick, Black
20	7013864SM	3	LUBE FITTING, 3/16" Press Fit

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

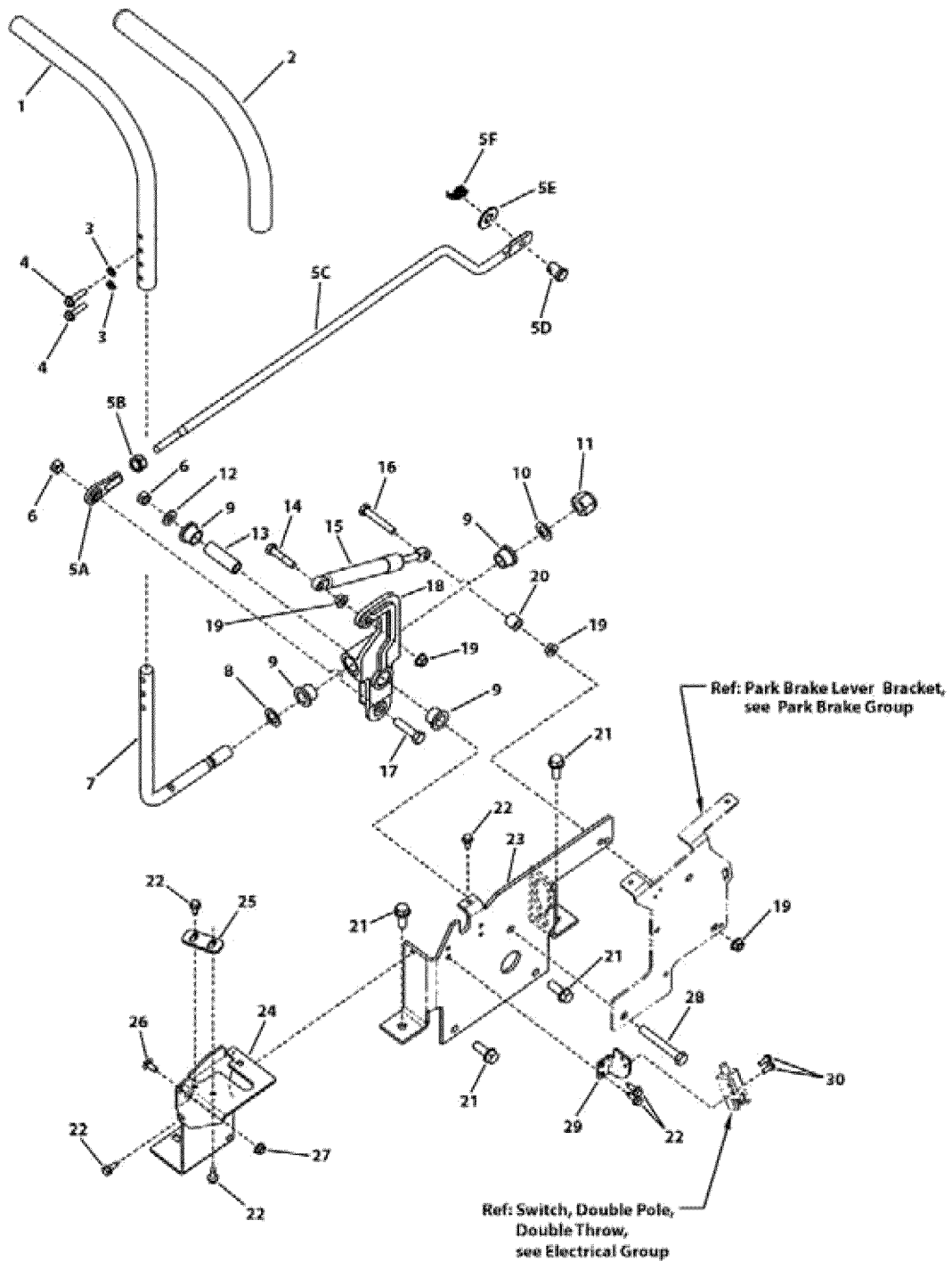




<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	7104656YP	1	TRANSMISSION- Hydro Gear, EZT LH ZT (ZC-AUBB-2ADB-1DPX)
2	7104657YP	1	TRANSMISSION- Hydro Gear, EZT RH ZT (ZC-DUBB-2ADC-1DPX)
3	7400288BMYP	1	WELDMENT, Transaxle Support
4	7100102SM	1	V-BELT, Hydro Drive (HA Wrapped Section; 58" Effective Length)
5	7091830SM	4	SCREW, 5/16-18 x 3" Hex Head Cap, GR 5, YZ
6	7015686SM	4	SHIM WASHER, 5/16 I.D.
7	7091541SM	8	SCREW, 5/16-18 x 3/4" Hex Washer Self-Tap, YZ
8	7300000BMYP	2	BRACKET, Transaxle Support
9	7091944SM	4	SCREW, 5/16-18 x 2-3/4" Hex Head Cap, GR 5 YZ
10	7090188SM	6	WASHER, 5/16" Flat
11	7091575SM	2	NUT, 5/16-18 Hex Center Lock, YZ
12	7011763SM	2	FENDER WASHER, 5/16"
13	7101161YP	1	RUBBER, Anti-Rotation
14	7091908YP	2	SCREW, 5/16-18 x 1-3/4" Hex Head Cap, GR 5 YZ
15	7103512YP	2	ROD, Roll Release
16	7103537YP	2	CAP, Vinyl
17	1725550SM	1	CLIP, Rod End Clevis LH for .188 Dia. Rod
18	1717024SM	1	CLIP, Rod End Clevis RH for .188 Dia. Rod
19	015X88MA	8	NUT, 5/16-18 Hex Flange Center Lock
20	7600157YP	1	KIT, FAN & PULLEY, EZT (Includes Ref. Nos. 21, 22, 23, 24 & 25)
21	--	1	Nut, HEX JAM 1/2-20 (Included in Ref. No. 20)
22	--	1	WASHER, SLOTTED (Included in Ref. No. 20)
23	--	2	PULLEY, 4-1/2" Transmission (Included in Ref. No. 20)
24	--	2	FAN, 6" Transmission (Included in Ref. No. 20)
25	--	1	HUB, PULLEY 1.56 (Included in Ref. No. 20)
26	1728075SM	1	PARKING BRAKE ARM ASSEMBLY, Transmission
27	1728060SM	1	HYDRO SEAL KIT
28	7600158YP	2	HUB REPLACEMENT KIT (Includes Ref. Nos. 29 & 30)
29	--	2	HUB, EZT Transmission (Included in Ref. No. 28)
30	--	2	NUT, EZT Transmission (Included in Ref. No. 28)
31	1728076SM	1	GEAR, Parking Brake, Transmission
32	1716622SM	1	CLIP, E Transmission Parking Brake
33	1735490SM	1	ARM, Control Kit L.H.
34	1735491SM	1	ARM, Control Kit R.H.
35	1735482SM	2	SPRING, Extension

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



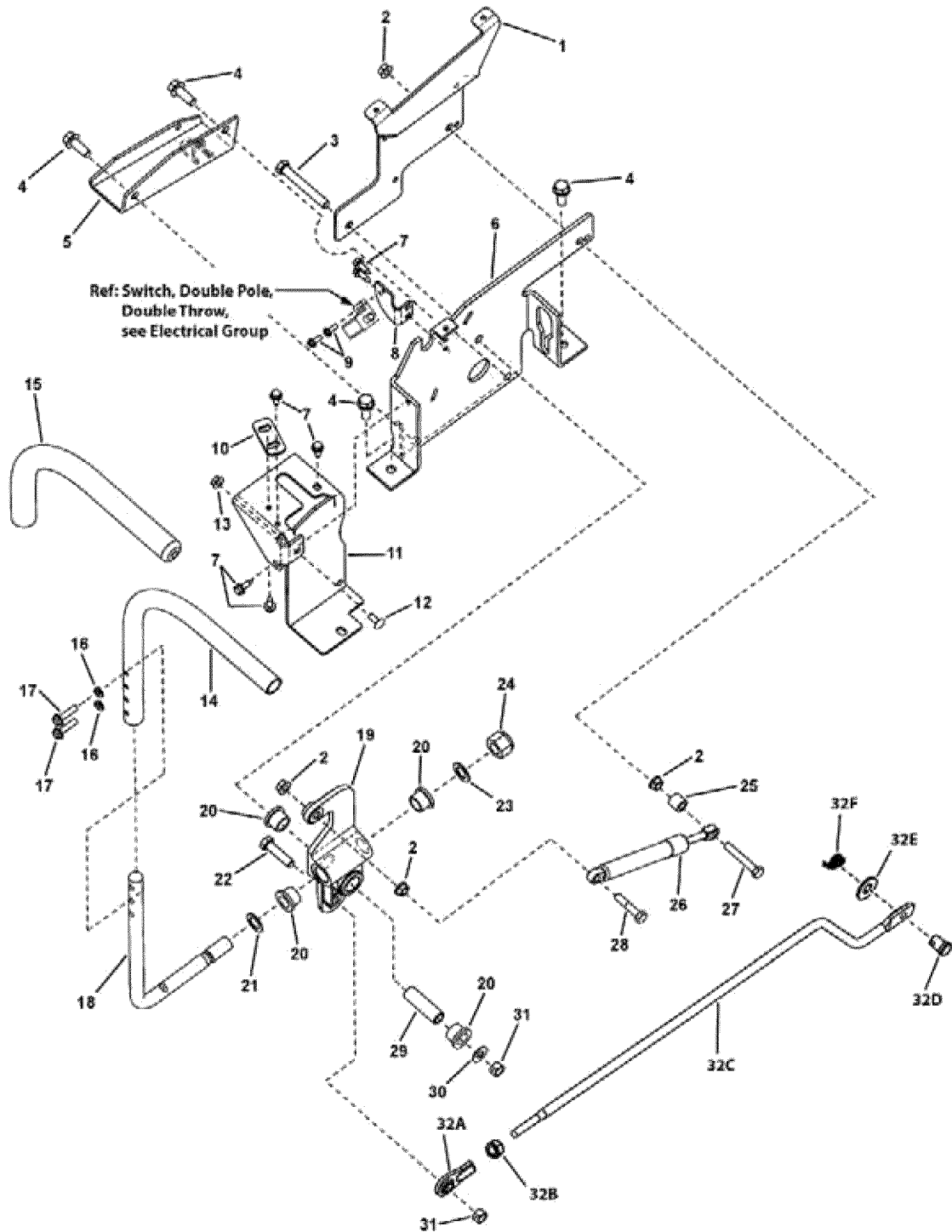
**Control Group, Left Hand**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	7043338AYP	1	HANDLE
2	7104547YP	1	GRIP, Handle
3	1916964SM	2	LOCKWASHER, 1/4" Spring, YZ
4	1921960SM	2	SCREW, 1/4-20 x 1" Hex Head Cap, GR 5, BZ
5A	7100743YP	1	ROD END, (3/8-24 thread)
5B	7091630SM	1	NUT, 3/8-24 Hex, GR B, YZ
5C	7104168YP	1	ROD, Link Foward/Reverse (3/8-24 thread)
5D	7900000SM	1	PIN, 7/16 x 1" Clevis
5E	7090517SM	1	WASHER, 3/8" Flat
5F	7091594SM	1	COTTER PIN, 1/2 Self, YZ
6	7091585SM	2	NUT, 3/8-16 Hex Center Lock, YZ
7	7200004SM	1	ROD, Handle R.H.
8	7091628SM	1	WASHER, .64 x .99 x .05 Flat, YZ
9	7013874SM	4	BUSHING
10	7900016SM	1	WASHER, 5/8 ID x 1.00 OD x .065 Nylon
11	7091505YP	1	NUT, 5/8-18 Hex Nyloc, YZ
12	7090122YP	1	WASHER, 3/8" Flat (SAE)
13	7100714YP	1	SPACER, Sleeve, RZT
14	7091540YP	1	SCREW, 5/16-18 x 1-1/2 Hex Head Cap, YZ
15	5100728SM	1	DAMPENER, Control
16	7027174SM	1	SCREW, 5/16-18 x 2" Hex Head Cap, GR 5, YZ
17	7091497SM	1	SCREW, 3/8-16 x 1-1/2 Hex Head Cap, GR 5, YZ
18	7100715YP	1	ARM, Die Cast Aluminum
19	7091601SM	4	NUT, 5/16-18 Hex Flange Lock, GR 5, YZ
20	7023206YP	1	SPACER
21	7090324SM	4	SCREW, 3/8-16 x 1" Hex Washer Self-Tap
22	7090290SM	6	SCREW, 1/4-20 x 3/4" Hex Washer Self-Tap, Black
23	7043302BMYP	1	CONTROL BRACKET, LH
24	7301128BMYP	1	BRACKET, Guide, Stick, Control, LH
25	7300009BMYP	1	PLATE, Foward/Reverse Adjust
26	7091573YP	1	BOLT, 1/4-20 x 5/8" Round Head Short Square Neck, GR 5, YZ
27	1960294SM	1	NUT, 1/4-20 Hex Flange Lock, Black
28	7091557SM	1	SCREW, 3/8-16 x 2-3/4" Hex Head Cap, GR 5, YZ
29	7300032BMYP	1	BRACKET, Switch
30	7090913SM	2	SCREW, #10-24 x 1/2" Hex Washer Self-Tap, Torx

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



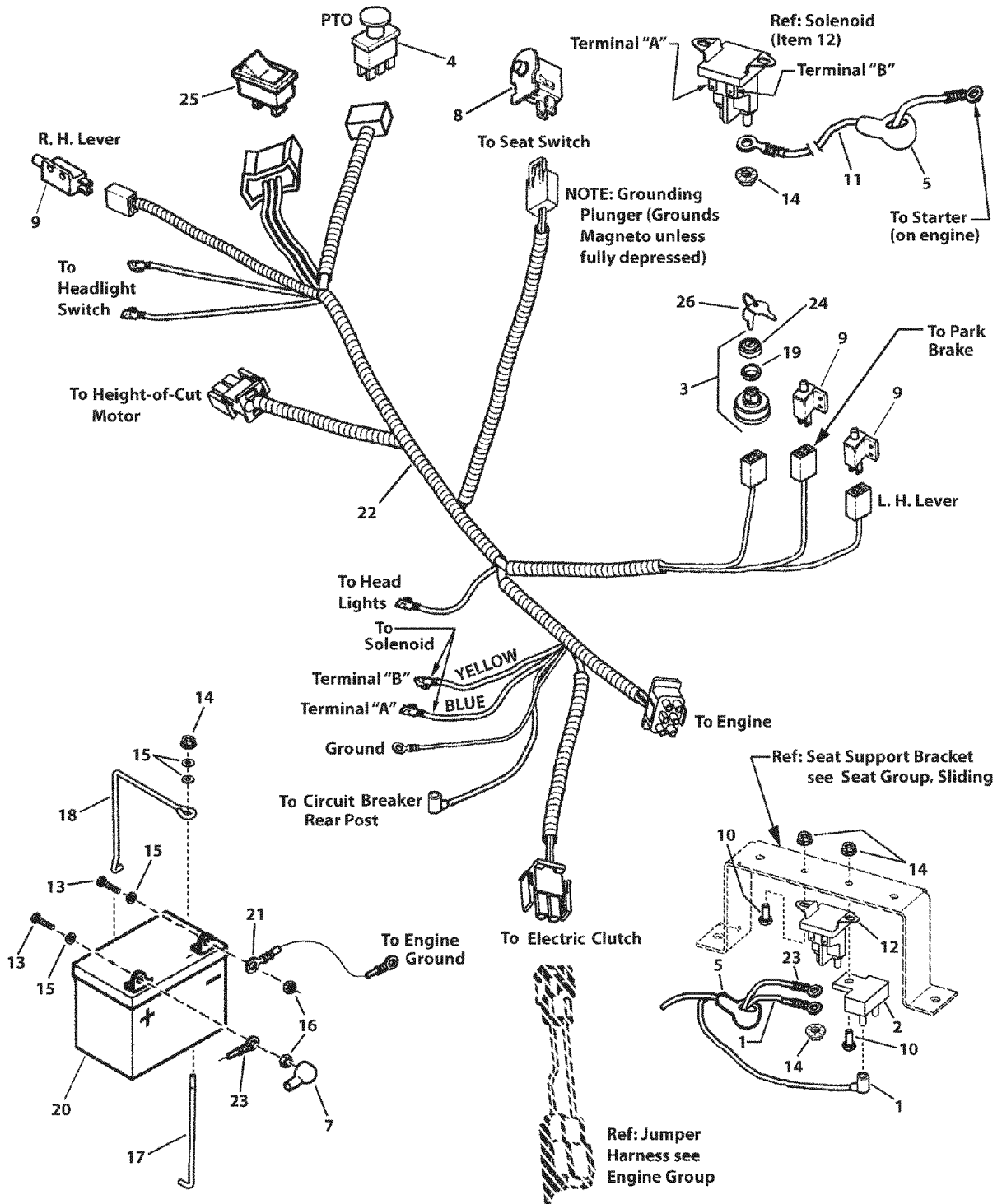
**Control Group, Right Hand - Electric Height of Cut**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	7301072BMYP	1	BRACKET, Fender Support, RH
2	7091601SM	4	NUT, 5/16-18 Hex Flange Lock, GR 5, YZ
3	7091557SM	1	SCREW, 3/8-16 x 2-3/4" Hex Head Cap, GR 5, YZ
4	7090324SM	4	SCREW, 3/8-16 x 1" Hex Washer Self-Tap
5	7301103BMYP	1	BRACKET, Mount, Motor
6	7043330BMYP	1	CONTROL BRACKET, RH
7	7090290SM	6	SCREW, 1/4-20 x 3/4" Hex Washer Self-Tap, Black
8	7300032BMYP	1	BRACKET, Switch
9	7090913SM	2	SCREW, #10-24 x 1/2" Hex Washer Self-Tap, Torx
10	7300009BMYP	1	PLATE, Foward/Reverse Adjust
11	7301129BMYP	1	BRACKET, Guide, Stick, Control, RH
12	7091573YP	1	BOLT, 1/4-20 x 5/8" Round Head Short Square Neck, GR 5, YZ
13	1960294SM	1	NUT, 1/4-20 Hex Flange Lock, Black
14	7043338AYP	1	HANDLE
15	7104547YP	1	GRIP, Handle
16	1916964SM	2	LOCKWASHER, 1/4" Spring, YZ
17	1921960SM	2	SCREW, 1/4-20 x 1" Hex Head Cap, GR 5, BZ
18	7200004SM	1	ROD, Handle, R.H.
19	7100717YP	1	ARM, Control Die Cast, RH
20	7013874SM	4	BUSHING
21	7091628SM	1	WASHER, .64 x .99 x .05 Flat, YZ
22	7091497SM	1	SCREW, 3/8-16 x 1-1/2 Hex Head Cap, GR 5, YZ
23	7900016SM	1	WASHER, 5/8 ID x 1.00 OD x .065 Nylon
24	7091505YP	1	NUT, 5/8-18 Hex Nyloc, YZ
25	7023206YP	1	SPACER
26	5100728SM	1	DAMPENER, Control
27	7027174SM	1	SCREW, 5/16-18 x 2" Hex Head Cap, GR 5, YZ
28	7091540YP	1	SCREW, 5/16-18 x 1-1/2 Hex Head Cap, YZ
29	7100714YP	1	SPACER, Sleeve, RZT
30	7090122YP	1	WASHER, 3/8" Flat (SAE)
31	7091585SM	2	NUT, 3/8-16 Hex Center Lock, YZ
32A	7100743YP	1	ROD END, (3/8-24 thread)
32B	7091630SM	1	NUT, 3/8-24 Hex, GR B, YZ
32C	7104168YP	1	ROD, Link Foward/Reverse (3/8-24 thread)
32D	7900000SM	1	PIN, 7/16 x 1" Clevis
32E	7090517SM	1	WASHER, 3/8" Flat
32F	7091594SM	1	COTTER PIN, 1/2 Self, YZ

**Footnotes**

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



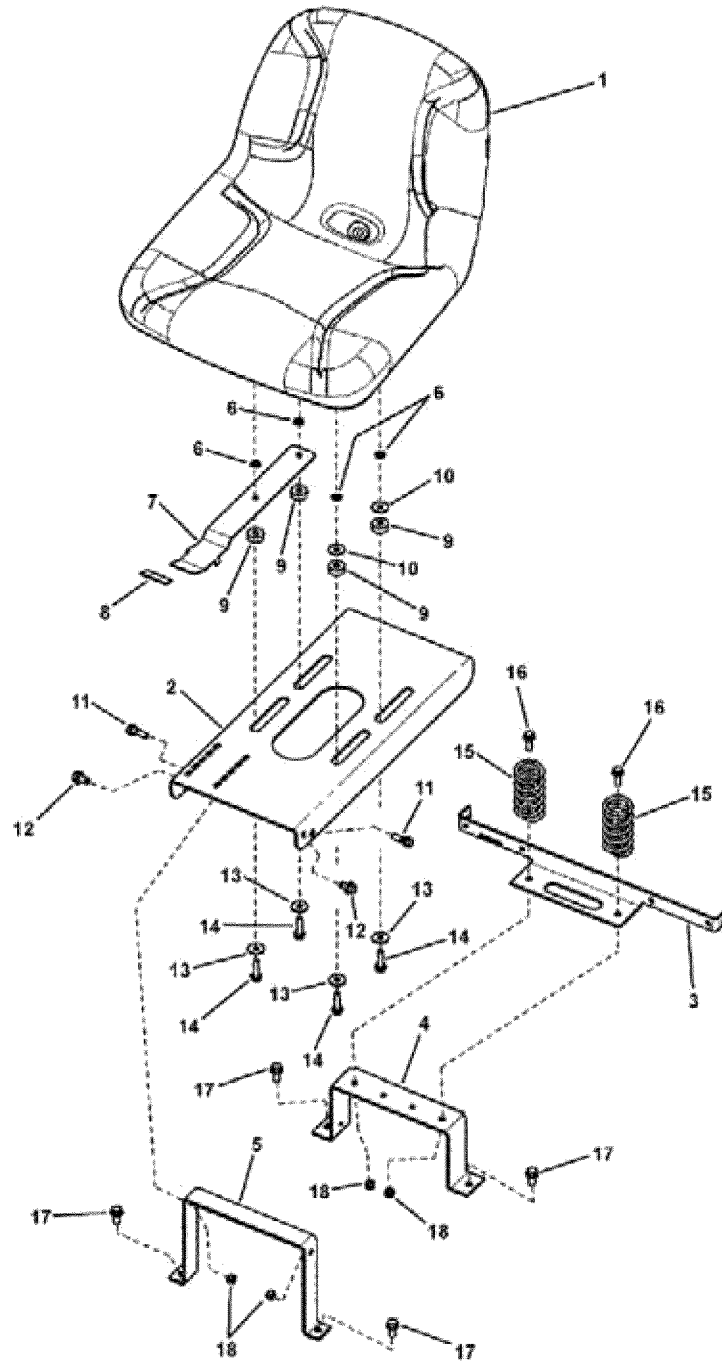
**Electrical Group**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	1665237SM	1	WIRE, 12 Gage, 8", Red
2	1665238SM	1	BREAKER, Circuit 12 Volt 20 AMP w/Tab
3	1737853YP	1	SWITCH ASSEMBLY, Ignition (Includes Ref. Nos. 19 & 24)
4	1722887SM	1	SWITCH, PTO, Push/Pull Symbols
5	1724588SM	2	COVER, Terminal, Red Vinyl
7	7012444YP	1	COVER, Battery Cable, Red
8	7023354YP	1	SWITCH, Push Button (NC)
9	7023355YP	3	SWITCH, DPDT (NC/NO)
10	7090072SM	2	SCREW, 1/4-20 x 5/8" Hex Head Cap, GR 5
11	7042956SM	1	CABLE, Starter, 8 Gage, 14", Black
12	7075622SM	1	SOLENOID, Super Trombetta - 2 Terminal
13	7090072SM	2	SCREW, 1/4-20 x 5/8" Hex Head Cap, GR 5 or B
14	7090372SM	3	NUT, 1/4-20 Hex Nyloc
15	7091294SM	4	WASHER, 1/4" Flat
16	7091584SM	4	NUT, 1/4-20 Hex Flange Lock, YZ
17	7100308SM	1	HOLD DOWN, Battery
18	7100309SM	1	BRACKET, Battery
19	7100329YP	1	NUT, 5/8"-32 E-Start (Included in Ref. No. 3)
20	1685215SM	1	BATTERY, 12 Volt, 230 CCA
21	7100636SM	1	CABLE, Battery Negative, 8 Gage, 20", Black
22	7103412YP	1	HARNESS, Wiring, ZT
23	024X31MA	1	CABLE, Battery Positive, 8 Gage, 18", Red
24	091488MA	1	CAP, Ignition Switch (Included in Ref. No. 3)
25	1734141SM	1	SWITCH, Rocker Electric Height-Of-Cut (also shown on 52" Deck Lift Group)
26	1737836YP	1	KEYS, Blister Pk (KIDS+MWRS DON'T MIX) English/Spanish (set of two, one coated)

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.





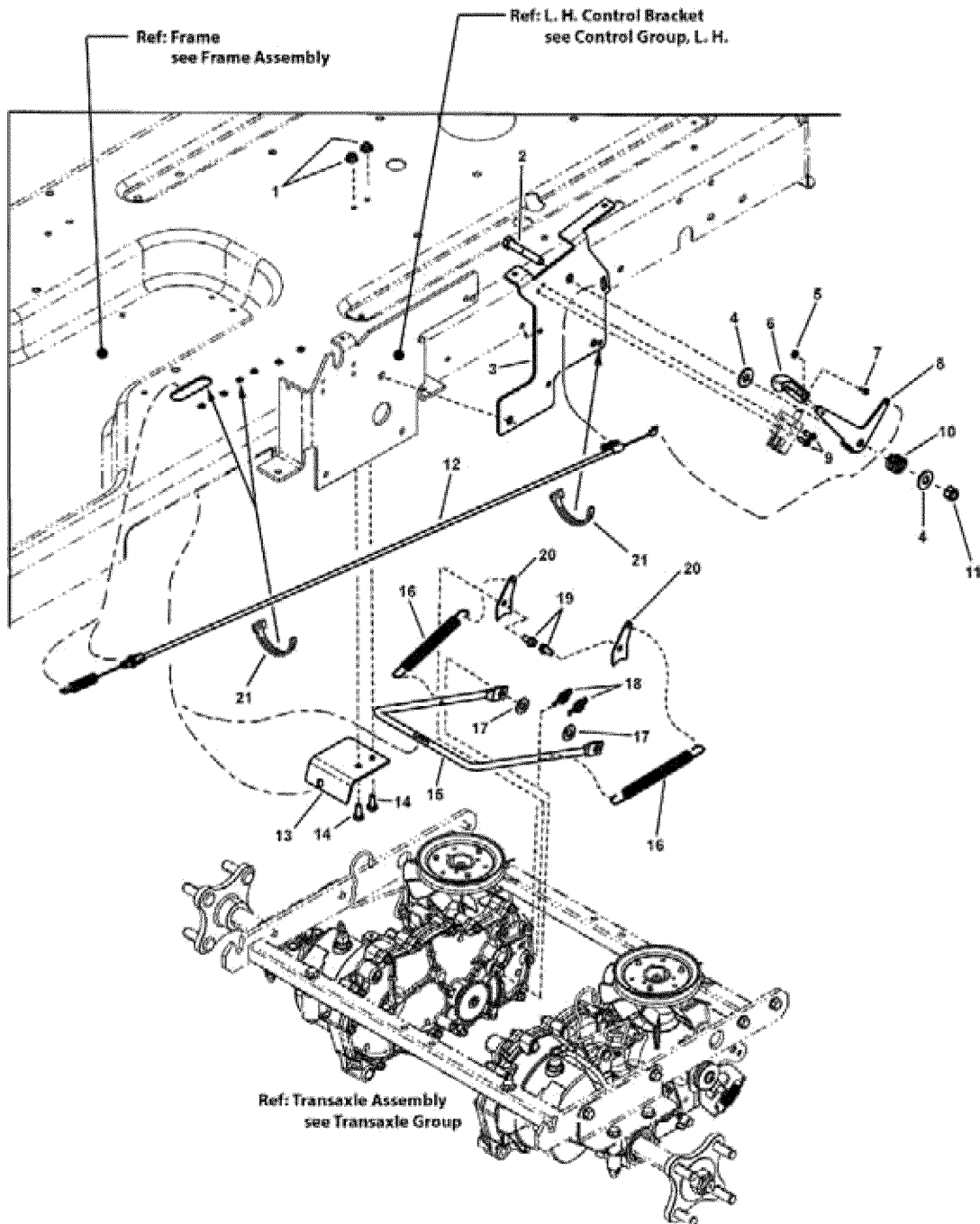
**Seat Group, Sliding**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	7104548YP	1	SEAT, 15" Back
2	7301095BMYP	1	PLATE, Seat, Adjustable
3	7301107BMYP	1	BRACKET, Support, Seat & Fender
4	7043316BMYP	1	BRACKET, Seat Support
5	7301070BMYP	1	BRACKET, Seat
6	7011791SM	4	RETAINER, 5/16" Bolt, Black
7	7103673BMYP	1	LATCH, Seat
8	885215YP	1	COVER, Seat Adjustment Lever
9	7103920YP	4	SPACER, Seat, Adjustable
10	7011763SM	2	FENDER WASHER, 5/16"
11	7011078SM	2	SHOULDER BOLT, 5/16-18 x 1"
12	7091198SM	2	SCREW, 3/8-16 x 5/8" Hex Washer Self-Tap
13	1919381SM	4	WASHER, 5/16" Flat (.341 ID x 1.00 OD x .13 Thick) Black
14	1930595SM	4	SCREW, 5/16-18 x 1-1/4" Hex Head Flange Lock
15	7103425YP	2	SPRING, 3.62 " Compression
16	7091591SM	2	BOLT, 5/16-18 x 1" Hex Flange Lock, GR 5, YZ
17	7090815YP	4	SCREW, 3/8-16 x 3/4" Hex Washer Self-Tap
18	7091298YP	4	NUT, 5/16-18- Nyloc, YZ

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



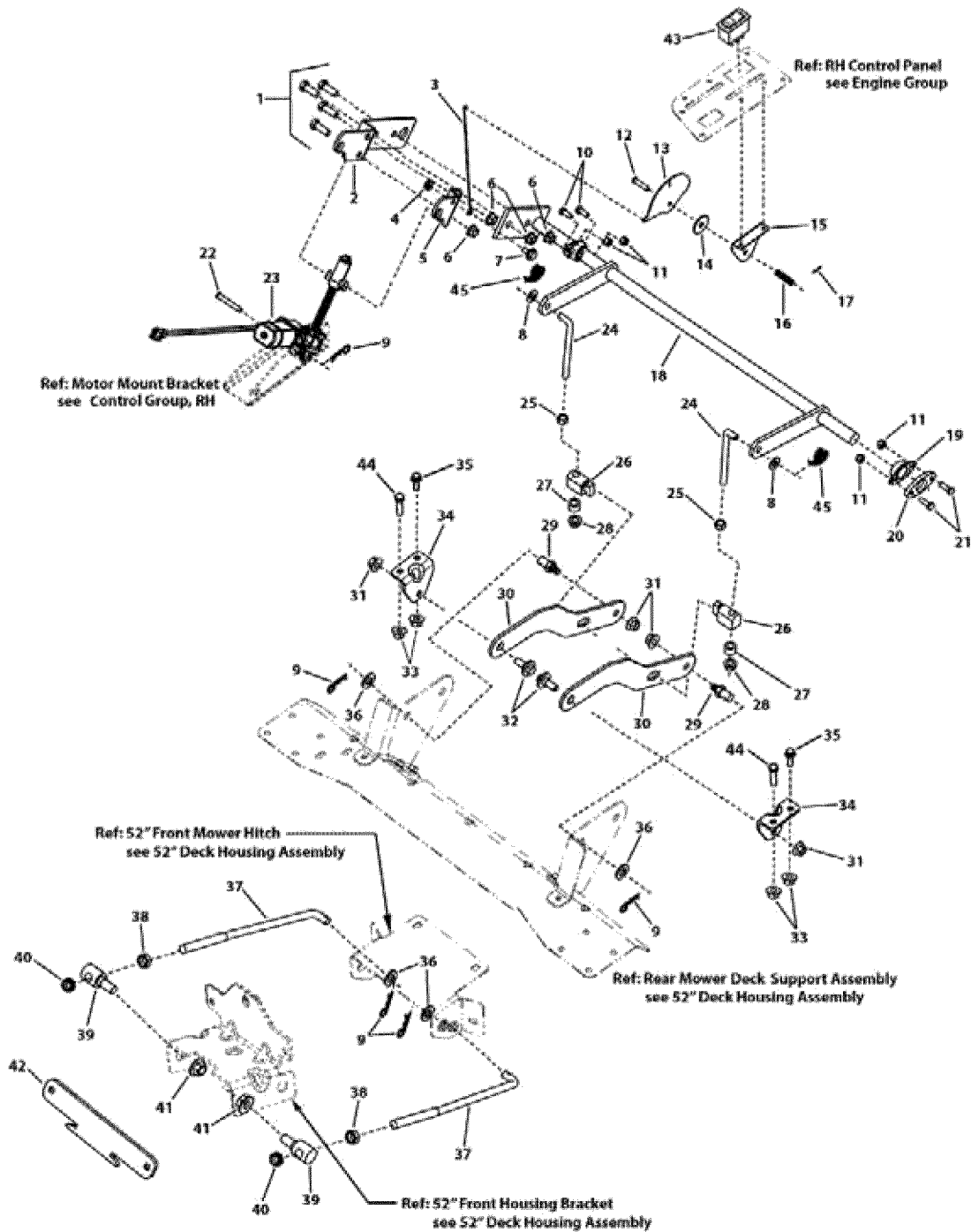
REF NO	PART NO.	QTY.	DESCRIPTION
1	1960294SM	2	NUT, 1/4-20 Hex Flange Lock, Black
2	7091560YP	1	SCREW, 3/8-16 x 2-1/4" Hex Head Cap, GR 5, YZ
3	7301075BMYP	1	BRACKET, Lever, Park Brake
4	7090517SM	3	WASHER, 3/8" Flat
5	7091018YP	1	NUT, #8-32 Hex, GR 2B
6	7023655YP	1	LEVER, Throttle Control
7	7091017YP	1	SCREW, #8-32 x 3/8" Cross Recess Filister Head, GR 2
8	7301074YP	1	LEVER, Brake, Park
9	7090913SM	2	SCREW, #10-24 x 1/2" Hex Washer Self-Tap, Torx
10	7028036YP	1	SPRING, Friction Pack
11	7091299SM	1	NUT, 3/8-16 Hex Nyloc, YZ
12	7103792YP	1	CABLE, Park Brake, RZT
13	7301086BMYP	1	BRACKET, Cable, Park Brake
14	7090072SM	2	SCREW, 1/4-20 x 5/8" Hex Head Cap, GR 5
15	7103436YP	1	ROD, Park Brake, RZT
16	2159106SM	2	SPRING, Ext. .562 OD x 4.250 Long x .049 Wire
17	7090122YP	2	WASHER, 3/8" Flat (SAE)
18	7091594SM	2	COTTER PIN, 1/2" Self Locking, YZ
19	1925003SM	2	SCREW, 1/4-20 x 1/2" Hex Washer Self-Tap
20	7301092BMYP	2	TAB, Spring, Park Brake
21	7012080SM	4	CABLE TIE, 7"

## Footnotes

# 52" Deck Lift Group - Electric Height of Cut

ZTS7000 - 107.280070

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



**52" Deck Lift Group - Electric Height of Cut**

**ZTS7000 - 107.280070**

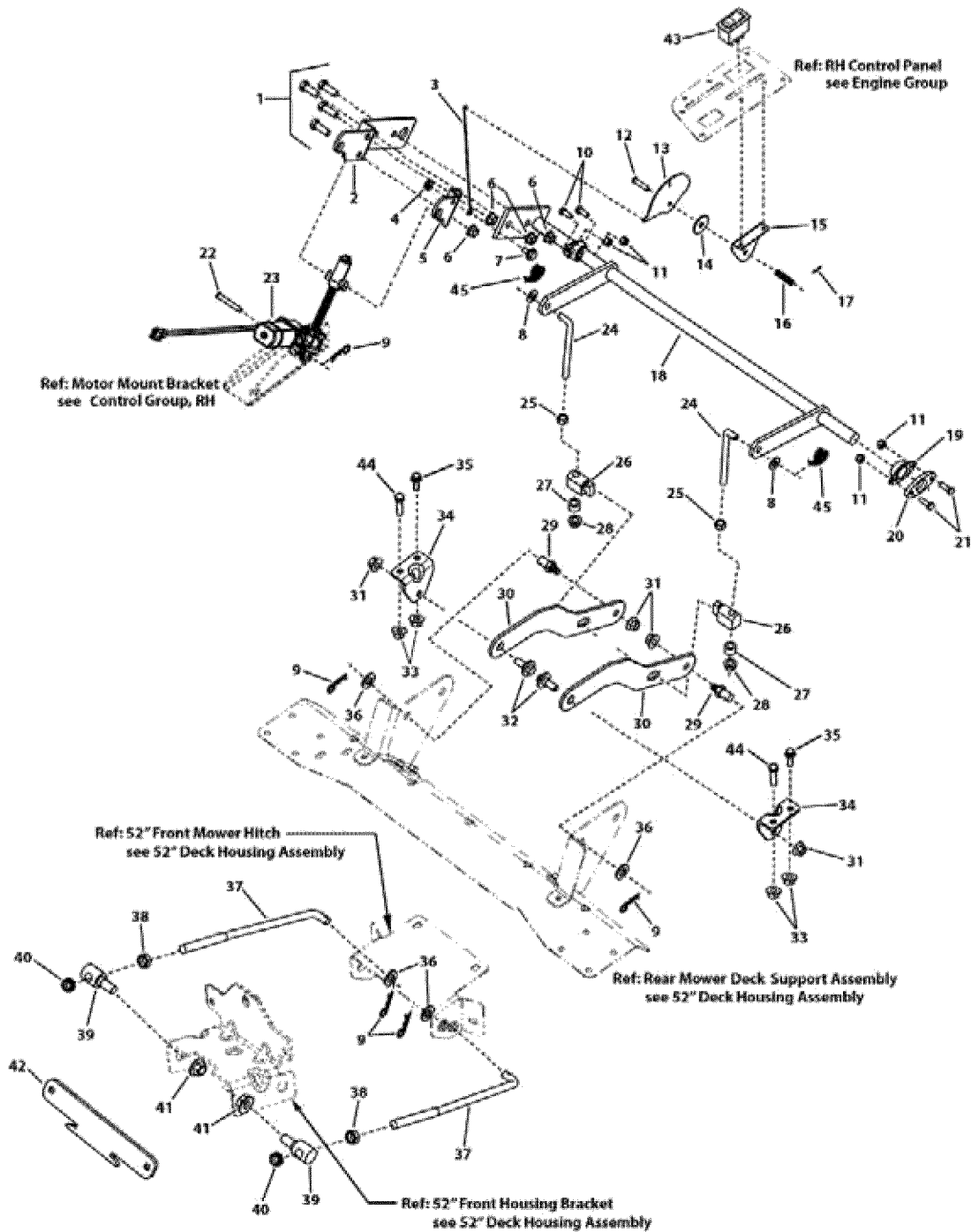
REF NO	PART NO.	QTY.	DESCRIPTION
1	7091304SM	4	SCREW, 3/8-16 x 1" Hex Head Cap, GR 5, YZ
2	7301104BMYP	1	BRACKET, Lift, Deck, Primary
3	7103956YP	1	ROD, Indicator, Height-Of-Cut
4	7091584SM	1	NUT, 1/4-20 Hex Flange Lock, GR 5, YZ
5	7301105BMYP	1	BRACKET, Lift, Deck, Secondary
6	7091619SM	4	NUT, 3/8-16 Hex Flange lock, YZ
7	009X54MA	1	SHOULDER BOLT, 1/4-20 x 3/8"
8	7090122YP	2	WASHER, 3/8" Flat (SAE)
9	7091503SM	7	HAIR PIN, 3/32 x 1-1/2" YZ
10	7090072SM	2	SCREW, 1/4-20 x 5/8" Hex Head Cap, GR 5
11	7091603SM	4	NUT, 1/4-20 Hex Nyloc, YZ
12	578309MA	1	CLEVIS PIN, .25 x 1.09
13	7301119BCYP	1	LEVER, Indicator, Height-Of-Cut
14	7023649YP	1	WASHER, 5/16" Nylon
15	7301120BMYP	1	BRACKET, Indicator, Height-Of-Cut
16	164X34MA	1	SPRING, Compression
17	7090673SM	1	COTTER PIN, .06 x 1/2" YZ
18	7400011BMYP	1	WELDMENT, Deck Lift, 38/42
19	7026196SM	1	BEARING, Flange, .75 ID PM
20	7301125BMYP	1	SPACER, Bearing, .25"
21	7091495SM	2	SCREW, 1/4-20 x 3/4" Hex Head Cap, GR 5 YZ
22	1668344SM	1	SHEAR PIN, .248 ID x 1-3/4" Long
23	7103818YP	1	MOTOR, Actuator, Lift, Deck
24	1734217SM	2	ROD, Mower Lift (3/8-16 thread) Yellow
25	1916950SM	2	NUT, 3/8-16 Hex, Black
26	1731894SM	2	TRUNNION, Powdered Metal, Yellow, Regent
27	1666294SM	2	SPACER, .385 ID x .6697 OD x .455 Long, PM Yellow
28	1960687SM	2	NUT, 3/8-16 Hex Flange Esna, Black
29	094067MA	2	PIN, 3/8-16 Threaded Shoulder
30	7301098BMYP	2	BAR, Rear Lift
31	015X98MA	4	NUT, 3/8-16 Hex Flange Center Lock, Zinc Plated
32	1732129SM	2	SHOULDER BOLT, 3/8-16 x .94, BZ
33	7091601SM	4	NUT, 5/16-18 Flange Lock, YZ
34	7300028BMYP	2	BRACKET, Deck Hanger
35	7091811SM	4	BOLT, 5/16-18 x 5/8" Hex Flange lock, GR 5, YZ
36	1960170SM	4	WASHER, 1/2" Flat (0.51 ID x 1.00 OD x .10 Thick) Black
37	1736081YP	2	ROD, Front Bail (1/2-13 thread) MWR
38	1913744SM	2	NUT, 1/2-13 Hex Jam, Black
39	1737417YP	2	TRUNNION, Unthreaded
40	1960379SM	2	NUT, 1/2-13 Jam, Esna Light Thin
41	1930644SM	2	NUT, 1/2-13 Hex Flange Two-Way Lock Black
42	7301097BMYP	1	SUPPORT, Hanger
43	1734141SM	1	SWITCH, Rocker Electric Height-Of-Cut

**Footnotes**

# 52" Deck Lift Group - Electric Height of Cut

ZTS7000 - 107.280070

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



**52" Deck Lift Group - Electric Height of Cut**

**ZTS7000 - 107.280070**

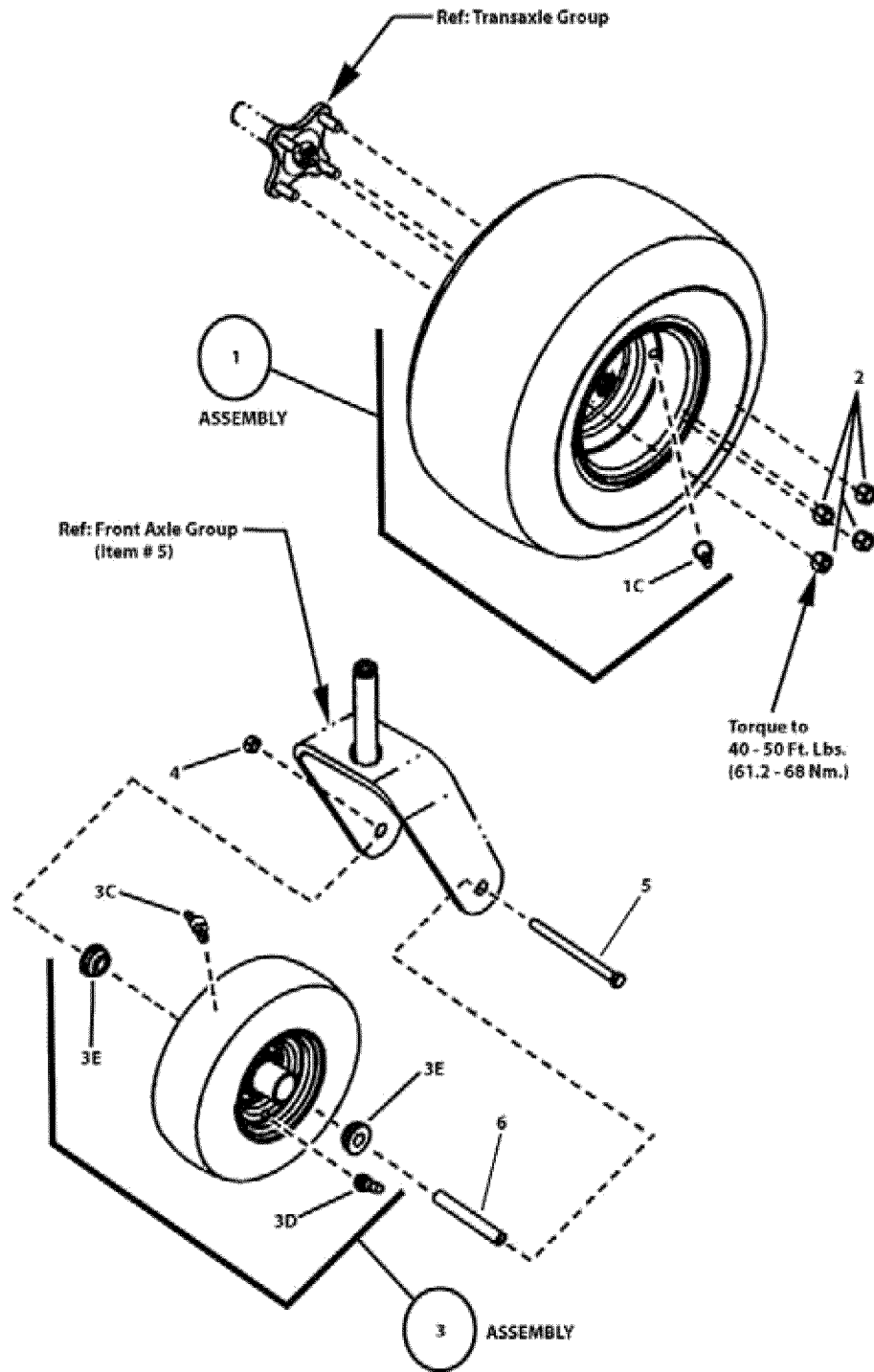
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<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
44	7027168SM	2	CAPSCREW, Hex Head, 5/16-18 x 1
45	7091593SM	2	COTTER PIN, 3/8" Self Lock

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**Footnotes**

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



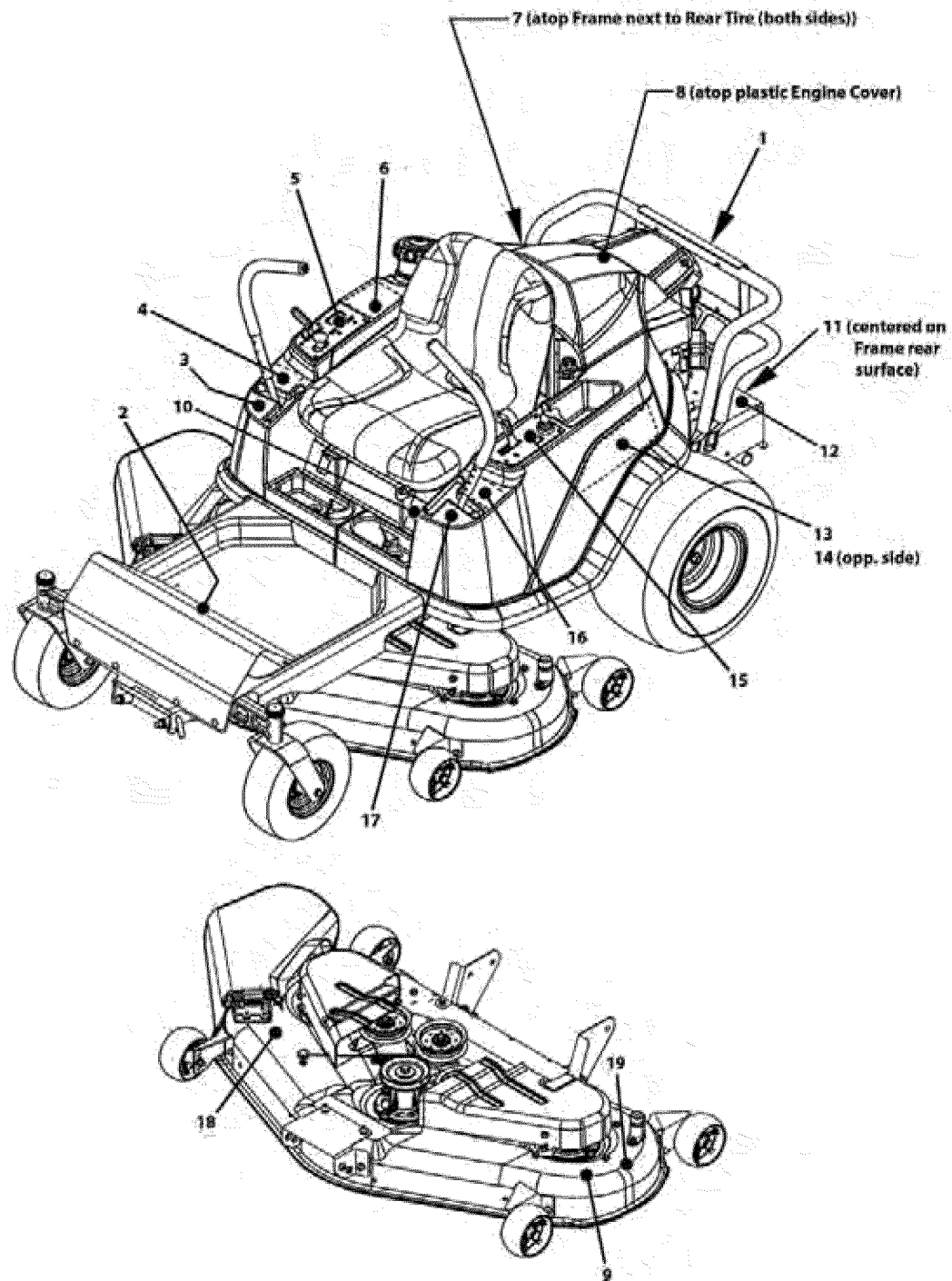


**Wheel & Tire Group****ZTS7000 - 107.280070**

<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	7103403YP	2	ASSEMBLY, Tire & Wheel (Rim) (Incl. Ref. 1C)
1C	7012234SM	1	AIR VALVE STEM, Snap-In (Included with Ref. 1)
2	7027192SM	8	LUG NUT, 1/2 - 20 Tapered Seat, YZ
3	1734013SM	2	ASSEMBLY, Wheel & Tire Sears ZTS 11 x 4-5 (Incl. Ref. 3C, 3D, 3E)
3C	7104428YP	1	GREASE FITTING, (8M x 1 threads, 45 degree) (Included with Ref. 3)
3D	2172353SM	1	VALVE, Air (Included with Ref. 3)
3E	1739281YP	2	BUSHING, 0.632ID 1.377OD, .62 (Included with Ref. 3)
4	7090839SM	2	NUT, 7/16-14 Hex Center Lock, GR 5 or B
5	7091772SM	2	SCREW, 7/16-14NC x 6", Hex Head Cap, GR 5, YZ
6	1734841SM	2	TUBE, Caster Wheel, 0.625 OD 4.53 OLG 0.625 OD

Footnotes

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.

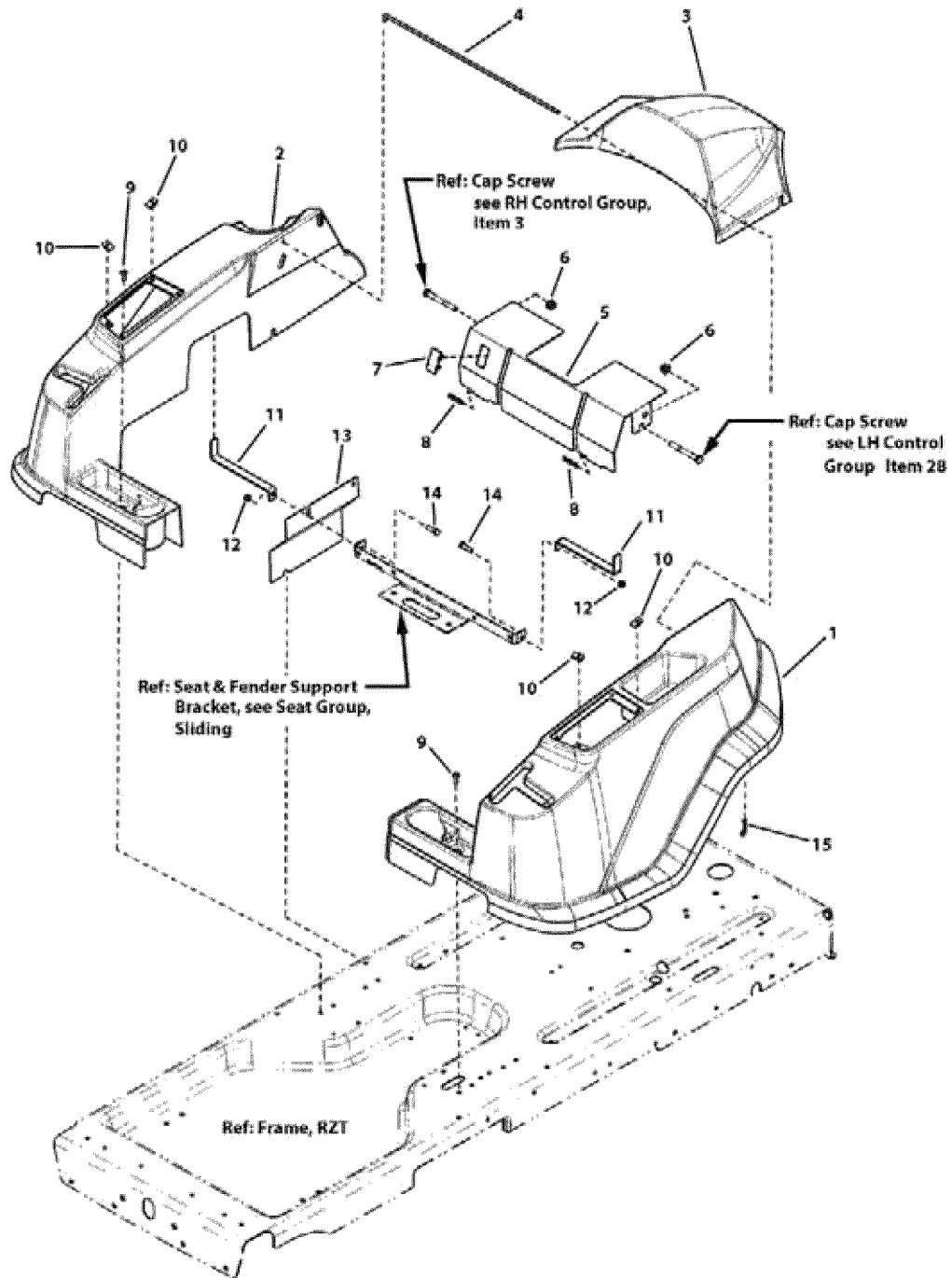


**Decals****ZTS7000 - 107.280070**

<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	7103145YP	1	DECAL, Rear, Craftsman ZTS
2	7104234YP	1	DECAL, Instructional, 285Z
3	7104227YP	1	DECAL, Handle, Ground Speed, RH, 285Z
4	7104225YP	1	DECAL, Safety, Symbol, 285Z
5	7104233YP	1	DECAL, Control Panel, RH 285Z
6	7104224YP	1	DECAL, DANGER, English, 285Z
7	7104231YP	2	DECAL, Release, Transaxle, 285Z
8	7104393YP	1	DECAL, Caution, Screen Rotating
9	7103181YP	1	DECAL, 52" Deck
10	7104117YP	1	DECAL, Model, Craftsman ZTS
11	7101940YP	1	DECAL, Weight Limitation
12	1734273SM	1	DECAL, Warning Burn Hazard
13	7104114YP	1	DECAL, LH Fender, Craftsman ZTS
14	7104116YP	1	DECAL, RH Fender, Craftsman ZTS
15	7104232YP	1	DECAL, Control Panel, LH 285Z
16	7104223YP	1	DECAL, WARNING, English, 285Z
17	7104226YP	1	DECAL, Handle, Ground Speed, LH, 285Z
18	1704277SM	1	DECAL, DANGER Do Not Operate w/o Deflector
19	1704276SM	1	DECAL, DANGER Do Not Put Hand/Feet in Mower
20	7104502YP	1	DECAL, Parts, Craftsman
21	7104553YP	1	DECAL, Craftsman Stripe LH
22	7104554YP	1	DECAL, Craftsman Stripe RH

**Footnotes**

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.



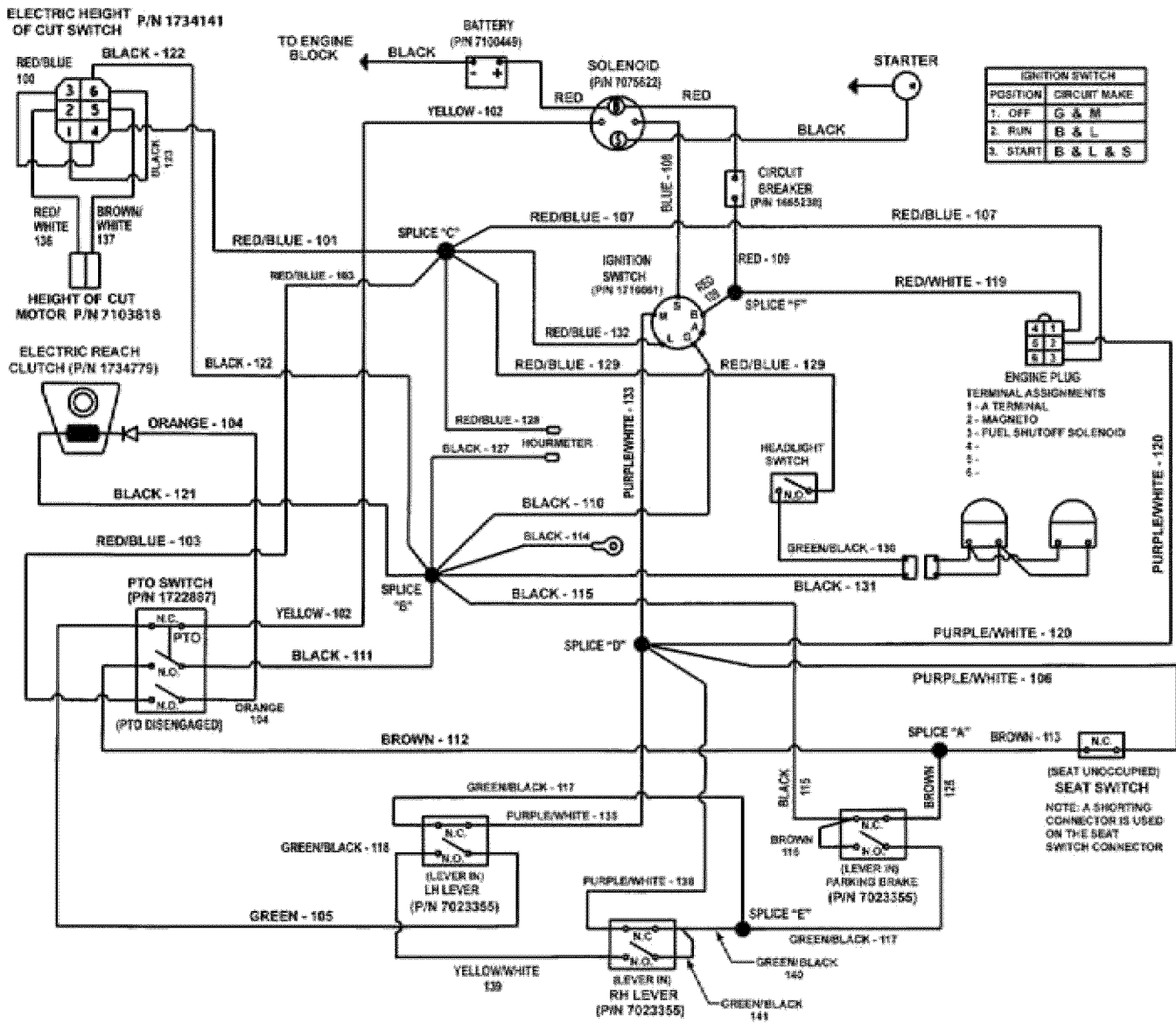
**Fender Group**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	7103776YP	1	FENDER, LH
2	7103775YP	1	FENDER, RH
3	7103777YP	1	COVER, Engine
4	7103998YP	1	ROD, Pivot, Hood
5	7301161BZYP	1	COVER, BATTERY, 285z
6	1960687SM	2	NUT, Hex Flange ESNA, 3/8-16
7	1722611SM	1	PLUG, Hole
8	7104514YP	2	STRIP, TRIM
9	7091246YP	2	SCREW, 1/4-20 x 3/4" Pan Head Self-Tap (Torx)
10	7023295SM	4	U-NUT, 1/4-20
11	7301101BMYP	2	BRACKET, Support, Fender
12	7091298YP	2	NUT, 5/16-18 3B Nyloc, YZ
13	7301126BMYP	1	PLATE, Side, RH
14	7027168SM	2	SCREW, 5/16-18 x 1" Hex Head Cap, GR 5, YZ
15	7091503SM	1	HAIR PIN, 3/32 x 1-1/2", YZ

Footnotes

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



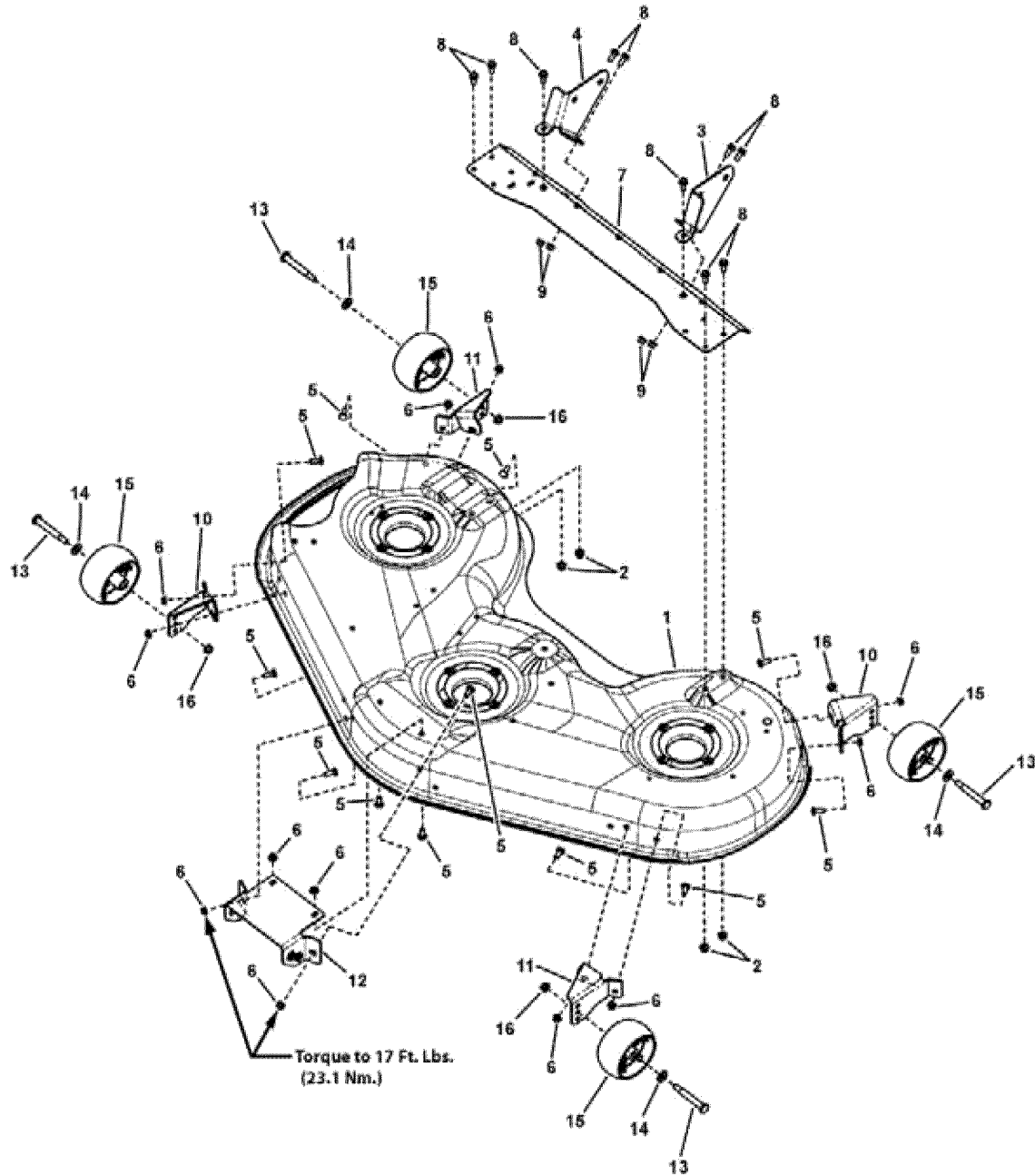
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<b>REF NO</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	7103412YP	1	HARNESS, Wiring

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Footnotes

NOTE: Unless noted otherwise,  
use the standard hardware torque  
specification chart.





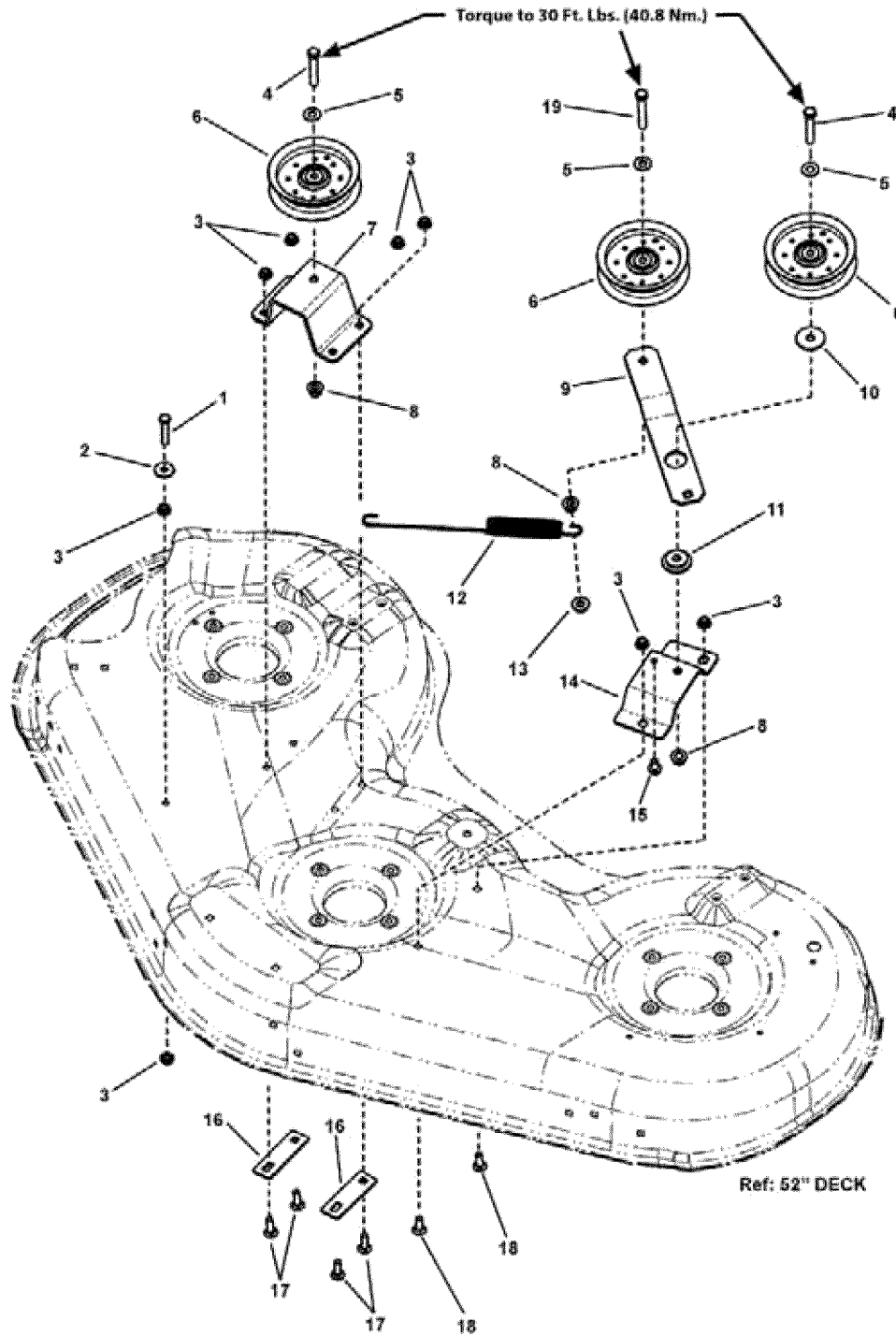
**52" Mower Deck - Housing Group**

ZTS7000 - 107.280070

REF NO	PART NO.	QTY.	DESCRIPTION
1	1735735BNYP	1	HOUSING, 52" Mower
2	7091575SM	4	NUT, Hex Flange Whiz Lock, 5/16-18
3	1736397BMYP	1	BRACKET, L.H. Rear
4	1736398BMYP	1	BRACKET, R.H. Rear
5	1931334SM	12	BOLT, 5/16-18 x 7/8" Round Head Short Square Neck, GR 5, Black
6	1931277SM	12	NUT, 5/16-18 Hex Flange Lock, Small - Black
7	1736070BMYP	1	SUPPORT, Rear Cross
8	1960373SM	10	SCREW, 5/16-18 x 1" Hex Washer Head Self-Tap, Black
9	1960686SM	4	NUT, 5/16-18 Hex Flange Nyloc
10	1736075BMYP	2	BRACKET, Gauge Wheel, LH
11	1736074BMYP	2	BRACKET, Gauge Wheel, RH
12	1736071BMYP	1	HITCH, Front
13	1736539YP	4	SHOULDER BOLT, 3/8-16 x 3.41" .750 Thread Yellow
14	1960170SM	4	WASHER, 1/2" Flat (0.51 ID x 1.00 OD x .10 Thick) Black
15	1736896YP	4	GAUGE WHEEL, Black Poly 5" Dia.
16	1960687SM	4	NUT, 3/8-16 Hex Flange Esna, Black

Footnotes

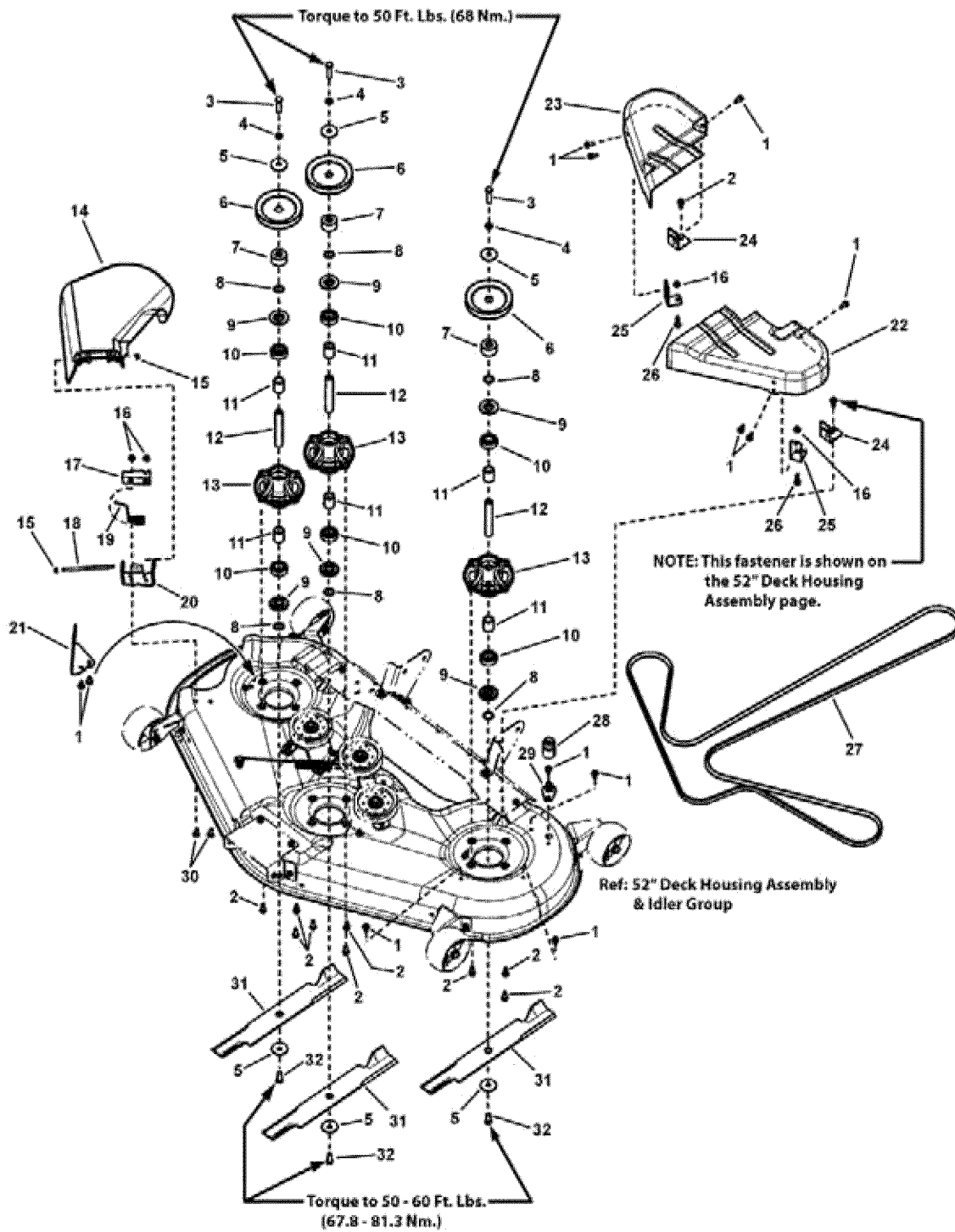
NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



REF NO	PART NO.	QTY.	DESCRIPTION
1	1922127SM	1	SCREW, 5/16-18 X 1-3/4" Hex Head Cap, GR 5 Yellow Zinc
2	1919381SM	1	WASHER, 5/16" Flat (.341 ID x 1.00 OD x .13 Thick) Black
3	1927557SM	8	NUT, 5/16-18 Hex Flange Lock, Large, Black
4	1922130SM	2	SCREW, 3/8-16 x 2-1/2" Hex Head Cap, GR 5 Black
5	1924940SM	3	WASHER, 3/8" Flat (.41 ID x .87 OD)
6	1736540YP	3	PULLEY, Idler 46/52, Mowers
7	7301102BMYP	1	BRACKET, Idler, Rear, RZT
8	1931211SM	3	NUT, 3/8-16 Hex Flange lock, GR F, BZ
9	7301100BMYP	1	ARM, Idler, 46/52 RZT
10	7091331SM	1	WASHER, .406 x 1.50 x .120 Flat, Yellow Zinc
11	1714255SM	1	SPACER, .406 ID x 1.50 OD x .350 Thick, PM
12	1737415YP	1	SPRING, Extension, PTO
13	1960339SM	1	NUT, 3/8-16 Hex Flange Lock, Large, Black
14	1736437BMYP	1	BRACKET, Idler Mount Front, Black
15	1664847SM	1	SCREW, 5/16-18 x 3/4" Hex Washer Head Self-Tap, Black
16	1737229BMYP	2	PLATE, Idler Bracket 46/52 Mowers
17	1931335SM	4	BOLT, 5/16-18 x 1" Round Head Short Square Neck, GR 5 Zinc
18	1931334SM	2	BOLT, 5/16-18 x 7/8" Round Head Short Square Neck, GR 5, Black
19	1933685SM	1	SCREW, 3/8-16 x 2-1/2" Hex Head Cap GR 5 Black

## Footnotes

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

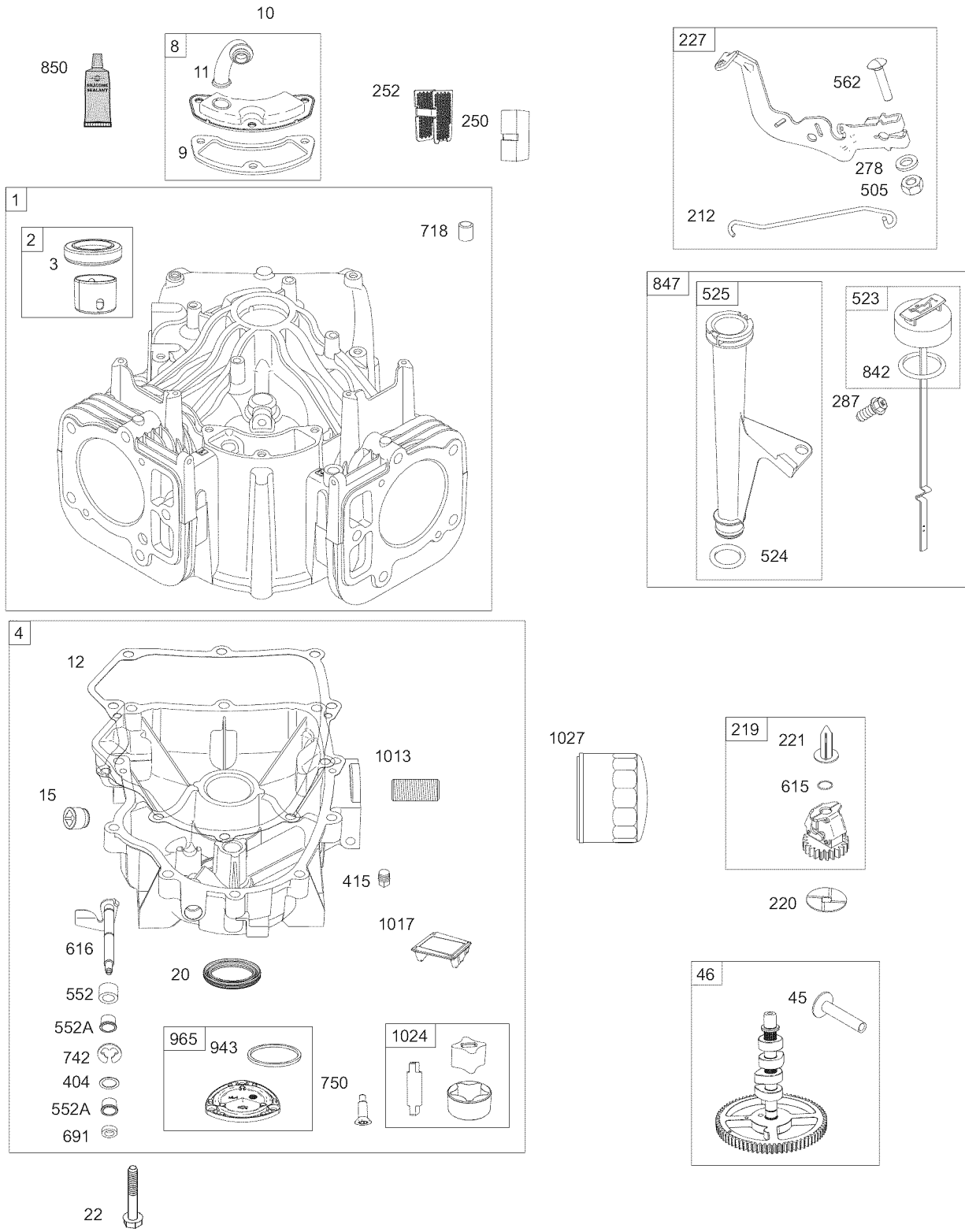


**52" Mower Deck - Spindle Group**

ZTS7000 - 107.280070

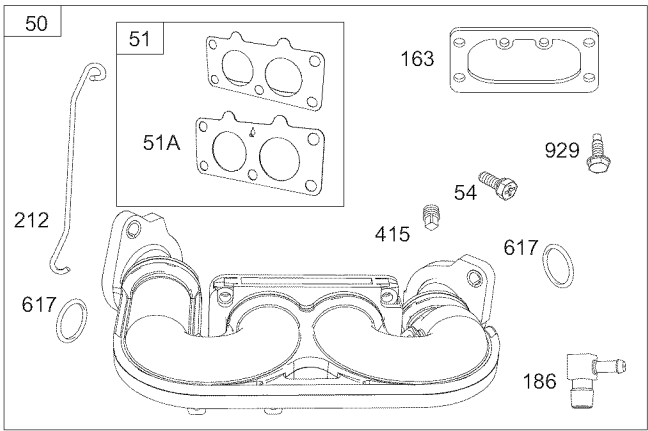
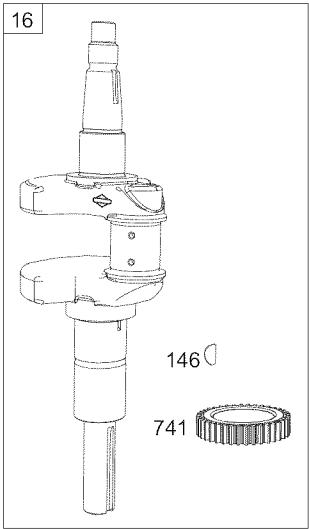
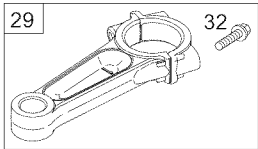
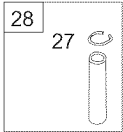
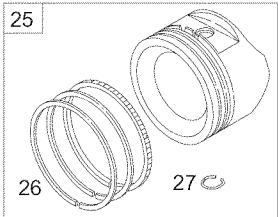
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1	1664847SM	12	SCREW, 5/16-18 x 3/4" Hex Washer Head Self-Tap, Black
2	1960373SM	10	SCREW, 5/16-18 x 1" Hex Washer Head Self-Tap, Black
3	1923027SM	3	SCREW, 7/16-14 x 1-3/4" Hex Head Cap, GR 5, Black
4	1918199SM	3	LOCKWASHER, .438, Spring, Black
5	1656916SM	6	WASHER, .475 ID x 1.75 OD x .156 Thick Spring, Black
6	1735733YP	3	PULLEY, 5.5 OD 11 Ga. Split
7	1736445YP	3	SPACER, Pulley, Powdered Metal
8	1960766YP	6	RING, Self Locking
9	1735323YP	6	SHIELD, Arbor, 2.050 OD
10	1735399YP	6	BALL BEARING, 20 MM
11	1735328YP	6	SPACER, Bearing Powdered Metal
12	1735326YP	3	SHAFT, Spindle 20MM Dia. 134.60 MM Long
13	1735573YP	3	HOUSING, Spindle, Cast Aluminum (Machined) w/Grease Fitting
14	1735447YP	1	DEFLECTOR, Discharge, Plastic
15	7012542YP	2	PUSH NUT, 5/16"
16	1931277SM	4	NUT, 5/16-18 Hex Flange Lock, Small - Black
17	1737359BMYP	1	PLATE, Deflector, Closeoff
18	1736366YP	1	ROD, Hinge, .313 Dia. x 5.6 Long, Zinc Plated
19	1736364YP	1	SPRING, Torsion, Deflector, 2.16 Long
20	1737418BMYP	1	HINGE, Deflector
21	1737279BMYP	1	BAFFLE, Pinchoff
22	7104164YP	1	COVER, Spindle, LH
23	7104163YP	1	COVER, Spindle, RH
24	7301133BMYP	2	BRACKET, Rear Deck Cover Support
25	7301134BMYP	2	BRACKET, Cover Mounting
26	7091524YP	2	SCREW, 5/16-18 x 1-1/4" Hex Washer Face Self-Tap
27	7103789YP	1	BELT, RZT, 52" Deck, HA Section, 158" Effective Length
28	1736898YP	1	CONNECTOR, Washout Port
29	1735716YP	1	ADAPTER, Washout Port
30	1931334SM	2	BOLT, 5/16-18 x 7/8" Round Head Short Square Neck, GR 5, Black
31	1737252AYP	3	BLADE, Mower, 18.50 Long, 52" Deck
32	1920676SM	3	SCREW, 7/16-14 x 1" Hex Head Cap, GR 5, Black

**Footnotes**



# 445877-0132-B1

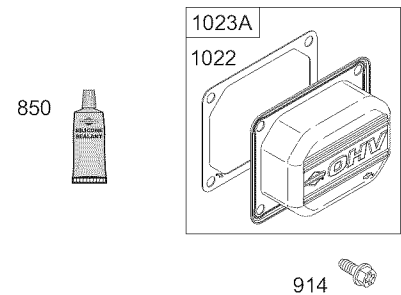
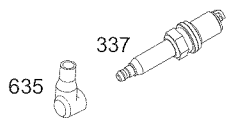
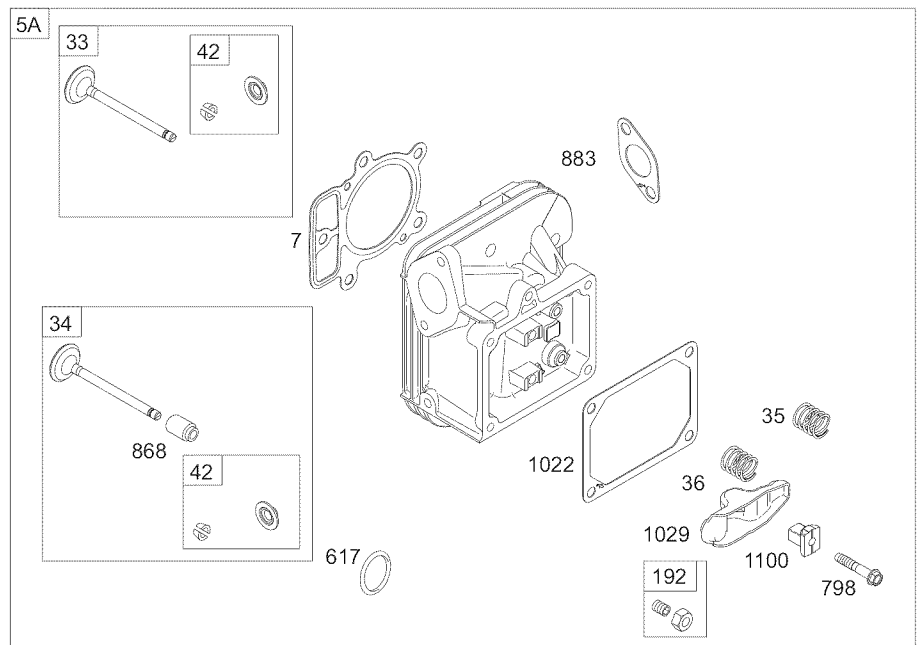
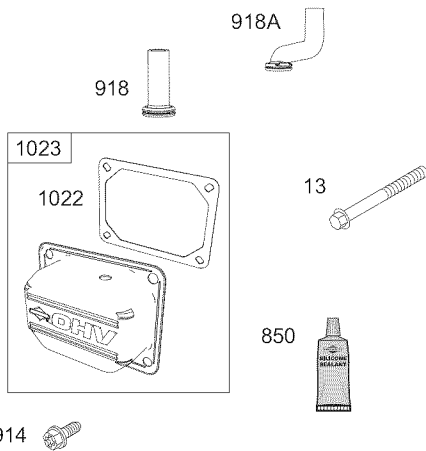
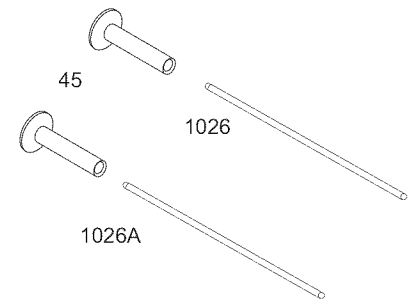
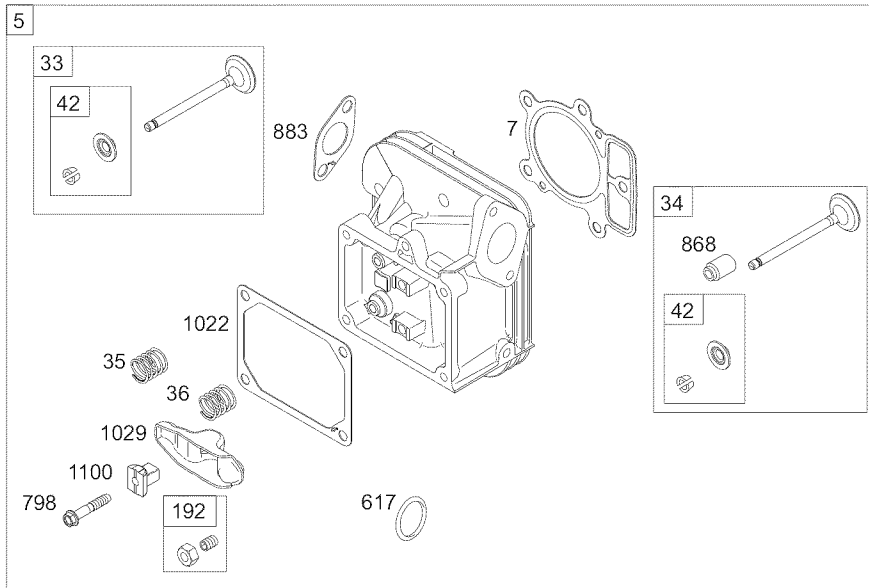
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	793564	Cylinder Assembly	227	798856	Lever-	615	698290	Retainer-
2	797673	Kit-Bushing/Seal (Magneto Side)			Governor Control			Governor Shaft
3	391086s	Seal-Oil (Magneto Side)	250	690957	Retainer-Breather	616	691045	Crank-Governor
4	796307	Sump-Engine	252	794389	Collector-Oil	691	790574	Seal-Governor Shaft
8	792185	Breather Assembly	278	792651	Washer (Governor Control Lever)	718	690959	Pin-Locating
9	690937	Gasket-Breather	287	697551	Screw (Dipstick Tube)	742	690328	Retainer-E Ring (Governor Crank)
10	697551	Screw (Breather Assembly)	404	690442	Washer (Governor Crank)	750	796208	Screw (Oil Pump Cover)
11	792184	Tube-Breather	415	690283	Plug (Oil Pressure Switch Hole)	842	691031	Seal-O Ring (Dipstick Tube)
12	697227	Gasket-Crankcase	505	691029	Nut (Governor Control Lever)	847	499602	Dipstick/Tube Assembly
15	690946	Plug-Oil Drain	523	691036	Dipstick	850	100106	Sealant-Liquid
20	795387	Seal-Oil (PTO Side)	524	691032	Seal-Dipstick Tube	943	796222	Seal-O Ring (Oil Pump Cover)
22	694966	Screw (Crankcase Cover/Sump)	525	691037	Tube-Dipstick	965	796221	Cover-Oil Pump
45	690977	Tappet-Valve	552	796638	Bushing- Governor Crank	1013	690954	Nipple-Oil Filter
46	792555	Camshaft	552A	690553	Bushing- Governor Crank	1017	796124	Screen-Oil Pump
48	698172	Short Block	562	690311	Bolt (Governor Control Lever)	1024	796220	Pump-Oil
212	695238	Link-Throttle				1027	795890	Filter-Oil
219	793338	Gear-Governor				1058	277103	Operator's Manual
220	690412	Washer (Governor Gear)				1329	44Q777-0037-G1	(Replacement Engine)
221	841026	Cup-Governor				1330	273521	Repair Manual





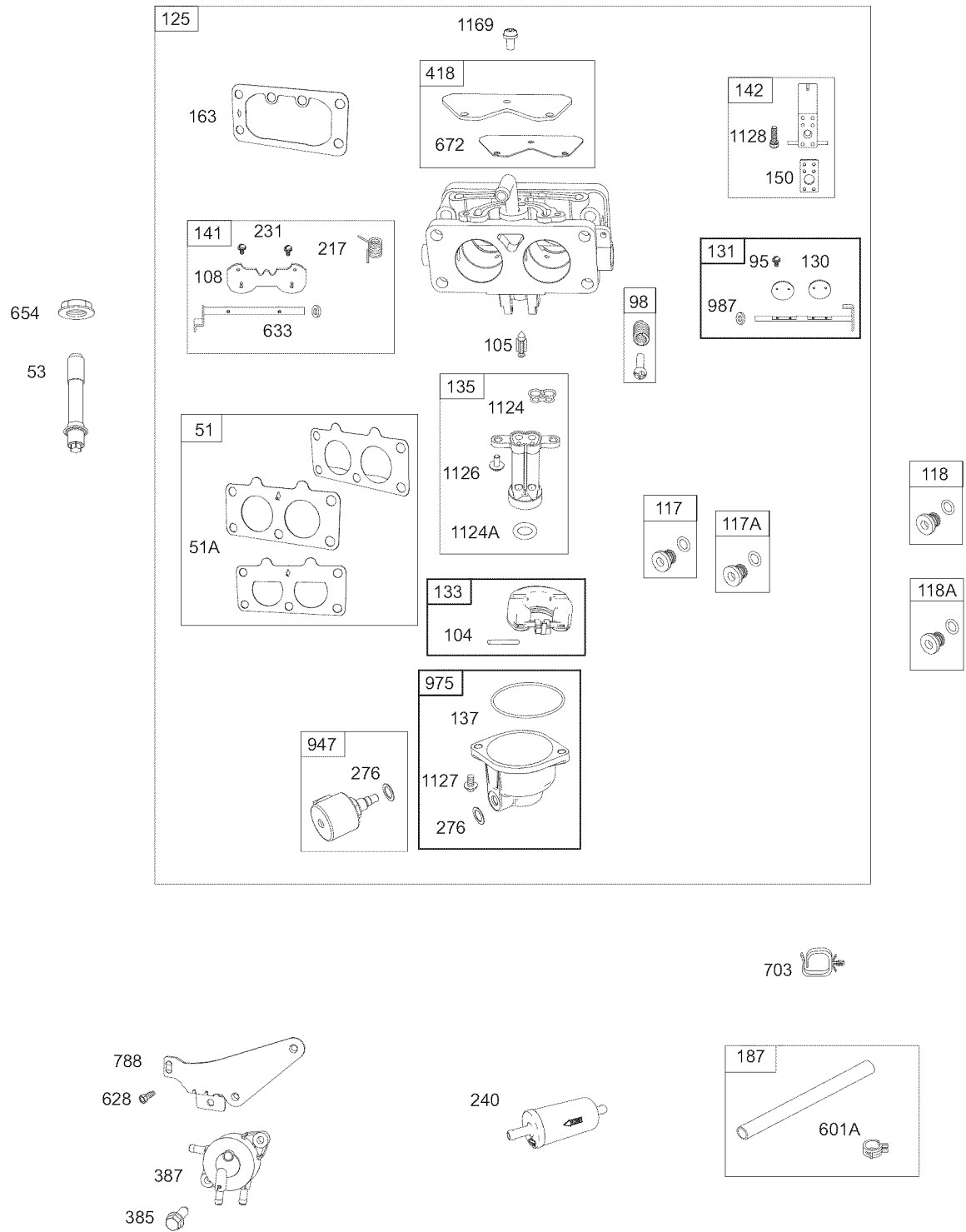
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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
16	796237	Crankshaft	27	690975	Lock-Piston Pin	212	695238	Link-Throttle
24	222698s	Key-Flywheel	28	696581	Pin-Piston	415	690283	Plug (Oil Pressure Switch Hole)
25	793560	Piston Assembly (Standard)	29	796209	Rod-Connecting	617	697891	Seal-O Ring (Intake Manifold) (Red)
		----- <b>Note</b> -----	32	690976	Screw (Connecting Rod)	741	690980	Gear-Timing
		793563 Piston Assembly (.020" Oversize)	50	695241	Manifold-Intake	929	695239	Screw (Choke Control Bracket)
26	793561	Ring Set (Standard)	51	795123	Gasket-Intake			
		----- <b>Note</b> -----	51A	690950	Gasket-Intake			
		792073 Ring Set (.020" Oversize)	54	699816	Screw (Intake Manifold)			
			146	690979	Key-Timing			
			163	691001	Gasket-Air Cleaner			
			186	795985	Connector-Hose (Intake Manifold)			



# 445877-0132-B1

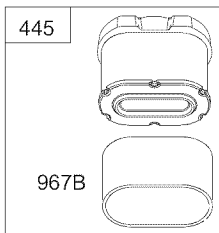
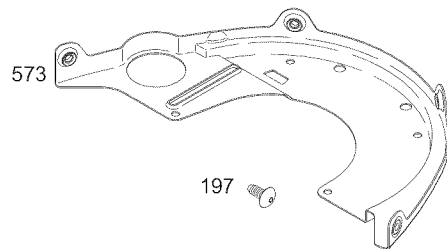
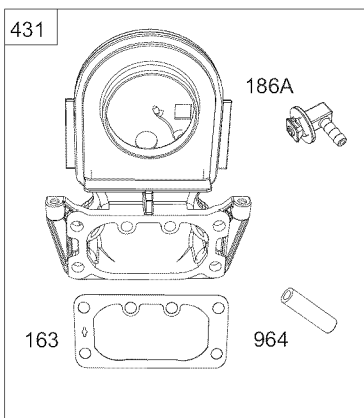
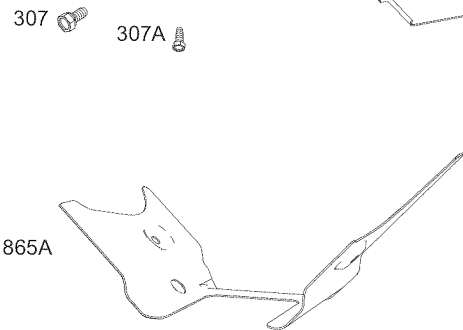
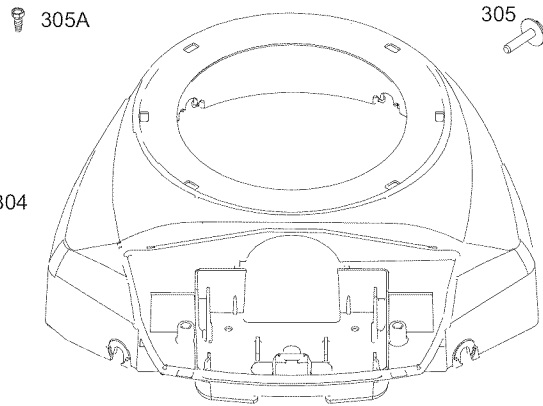
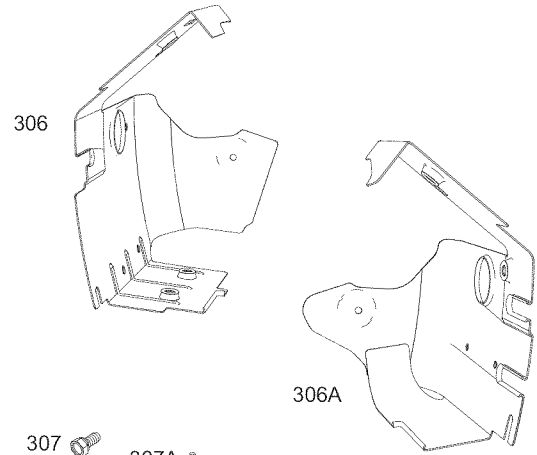
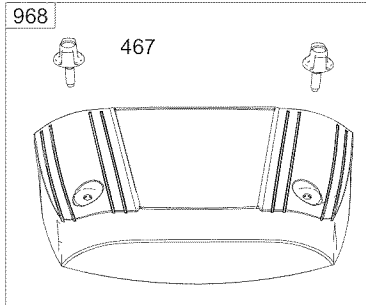
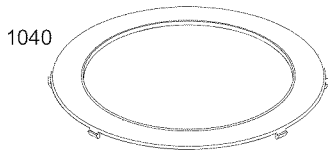
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5	799088	Head-Cylinder (Cylinder 1)	192	690083	Adjuster-Rocker Arm	918	797408	Hose-Vacuum
5A	799089	Head-Cylinder (Cylinder 2)	337	491055s	Plug-Spark	918A	793147	Hose-Vacuum
7	693997	Gasket-Cylinder Head	617	697891	Seal-O Ring (Intake Manifold)	1022	690971	Gasket-Rocker Cover
13	793988	Screw (Cylinder Head)			(Red)	1023	793146	Cover-Rocker (Cylinder 1)
33	793557	Valve-Exhaust	635	66538s	Boot-Spark Plug	1023A	499600	Cover-Rocker (Cylinder 2)
34	793556	Valve-Intake	798	697890	Screw (Rocker Arm)	1026	690981	Rod-Push (Steel)
35	694865	Spring-Valve (Intake)	850	100106	Sealant-Liquid	1026A	690982	Rod-Push (Aluminum)
36	694865	Spring-Valve (Exhaust)	868	690968	Seal-Valve	1029	690972	Arm-Rocker
42	499586	Keeper-Valve	883	690970	Gasket-Exhaust	1100	791959	Pivot-Rocker Arm
45	690977	Tappet-Valve	914	691127	Screw (Rocker Cover)			



# 445877-0132-B1

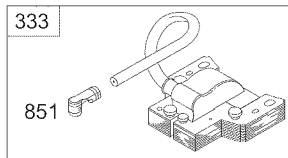
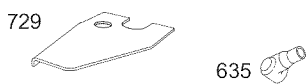
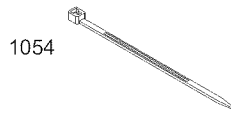
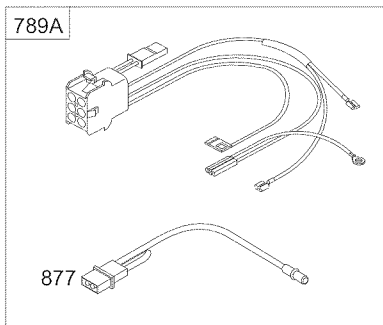
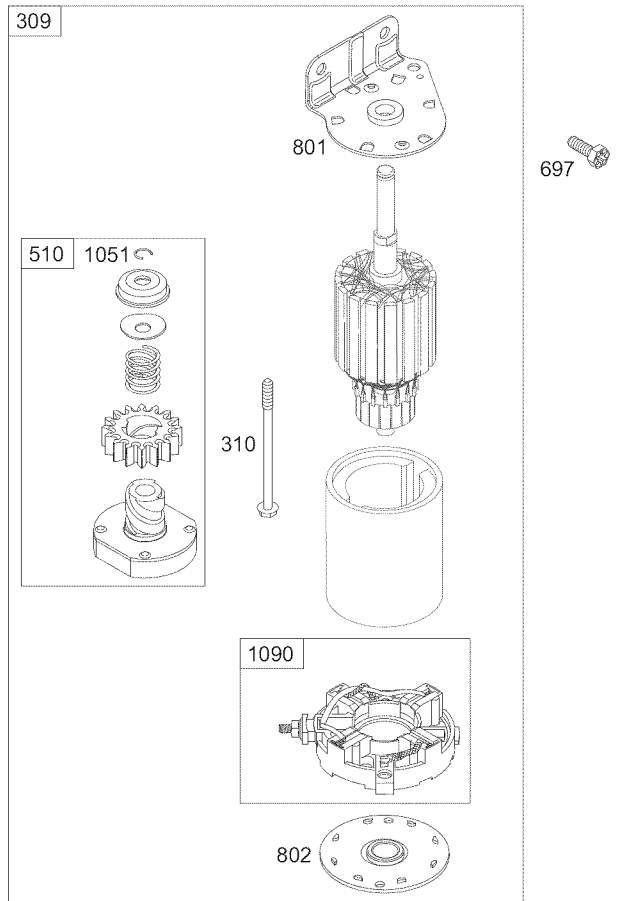
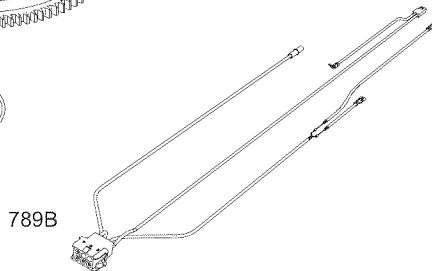
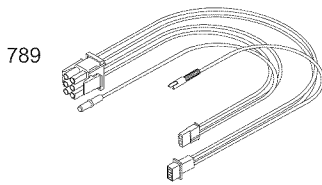
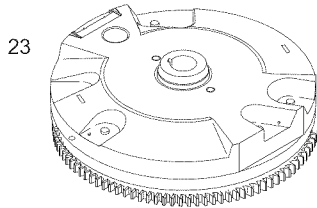
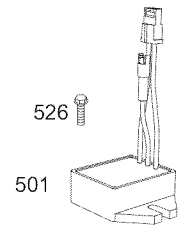
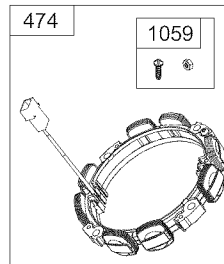
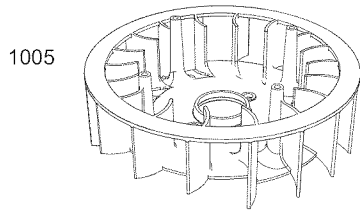
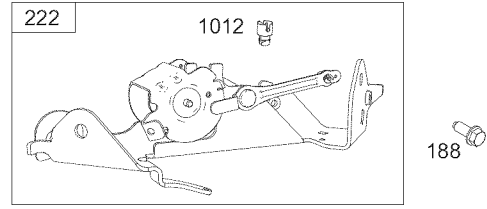
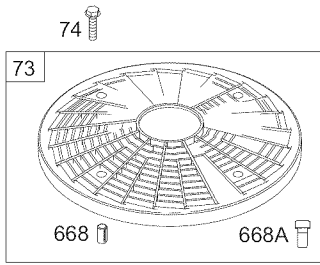
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51	795123	Gasket-Intake	142	699726	Nozzle-Carburetor	654	690958	Nut (Carburetor)
51A	690950	Gasket-Intake	150	690995	Gasket-Nozzle	672	690234	Gasket- Carburetor Plate
53	690951	Stud (Carburetor)	163	691001	Gasket-Air Cleaner	703	691010	Clip
95	690718	Screw (Throttle Valve)	187	791766	Line-Fuel (Cut to Required Length)	788	793145	Bracket-Fuel Pump (Used Before Code Date 09081200).
98	699721	Kit-Idle Speed	217	695409	Spring-Choke Return	947	798779	Solenoid-Fuel
104	694918	Pin-Float Hinge	231	690718	Screw (Choke Valve)	975	798778	Bowl-Float
105	797410	Valve-Float Needle	240	695666	Filter-Fuel	987	691000	Seal-Throttle Shaft
108	699723	Valve-Choke	276	695410	Washer-Sealing	1124	690988	Seal-O Ring (Fuel Transfer Tube)
117	792296	Jet-Main (Standard) (Left Jet)	385	797409	Screw (Fuel Pump) (Used After Code Date 09081100).	1124A	841653	Seal-O Ring (Fuel Transfer Tube)
117A	842627	Jet-Main (Standard) (Right Jet)	----- Note ----- 697551 Screw (Fuel Pump) (Used Before Code Date 09081200).			1126	690991	Screw (Fuel Transfer Tube)
118	699457	Jet-Main (High Altitude) (Left Jet)	387	808656	Pump-Fuel	1127	695407	Screw (Float Bowl)
118A	699733	Jet-Main (High Altitude) (Right Jet)	418	795912	Plate-Carburetor	1128	690990	Screw (Carburetor Nozzle)
125	796227	Carburetor	601A	691038	Clamp-Hose (Black)	1169	690990	Screw (Carburetor Cover Plate)
130	690993	Valve-Throttle	628	691108	Screw (Fuel Pump Bracket) (Used Before Code Date 09081200).			
131	499805	Kit-Throttle Shaft	633	699813	Seal- Choke/Throttle Shaft (Choke Shaft)			
133	699724	Float-Carburetor						
135	699729	Tube-Fuel Transfer						
137	690994	Gasket-Float Bowl						
141	796228	Kit-Choke Shaft						

1036 EMISSIONS LABEL



# 445877-0132-B1

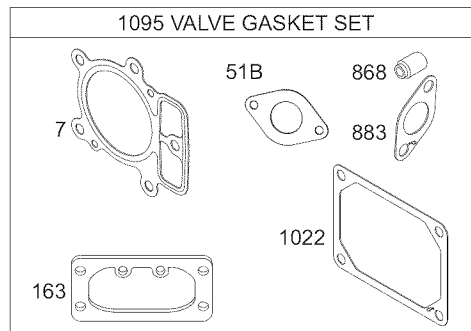
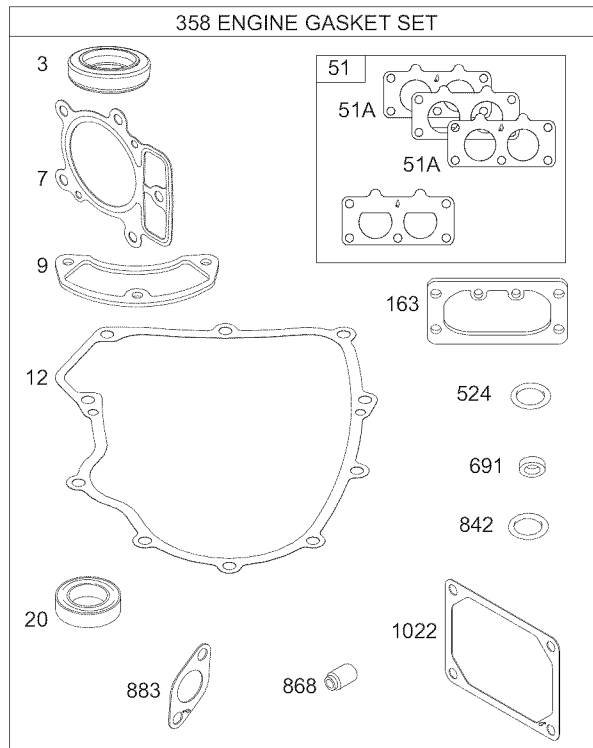
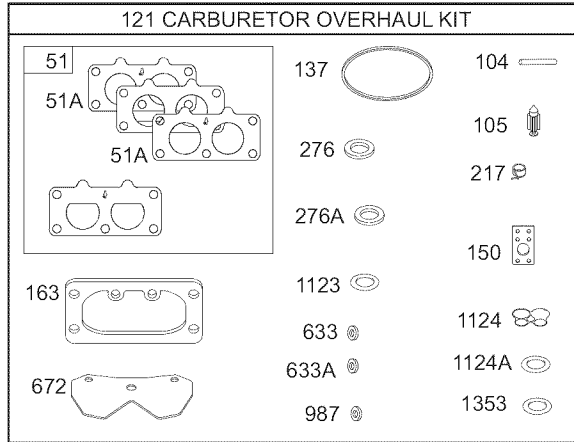
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
163	691001	Gasket-Air Cleaner	306	798855	Shield-Cylinder (Cylinder 2)	467	790697	Knob-Air Cleaner
186A	799158	Connector-Hose (EVAP System)	306A	796852	Shield-Cylinder (Cylinder 1)	573	790444	Plate-Back
197	697820	Screw (Back Plate)	307	697551	Screw (Cylinder Shield)	865A	792286	Cover-Air Guide (Valley)
304	797407	Housing-Blower	307A	691003	Screw (Cylinder Shield)	964	799158	Cap-Connector
305	691005	Screw (Blower Housing)	431	798860	Elbow-Intake	967B	792303	Filter-Pre Cleaner
305A	790690	Screw (Blower Housing) (Blower Housing to Intake Elbow)	445	792105	Filter- Air Cleaner Cartridge	968	795120	Cover-Air Cleaner
						1036		Label-Emissions (Available from a Briggs & Stratton Authorized Dealer)
						1040	791237	Plate-Trim





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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	
23	691053	Flywheel	216	796229	Link-Choke	697	690372	Screw	
73	494439	Screen-Rotating	222	798915	Bracket-Control (Used After Code Date 10072200).			(Drive Cap)	
74	698425	Screw (Rotating Screen)				729	797454	Clip-Wire	
75	691056	Washer (Flywheel)			796226	Bracket- Control (Used Before Code Date 10072300).	789	696576	Harness-Wiring
188	697551	Screw (Control Bracket)					789A	698330	Harness-Wiring (Used Before Code Date 09081200).
209	798921	Spring-Governor (Orange) (Used After Code Date 10072200).	265	691024	Clamp-Casing	789B	797424	Harness-Wiring (Used After Code Date 09081100).	
		796828	309	795121	Motor-Starter	801	691283	Cap-Drive	
		Spring-Governor (Dark Green/Brown) (Used Before Code Date 10072300).	310	691263	Screw (Starter Motor)	802	691286	Cap-End	
			332	691059	Nut (Flywheel)	851	493880s	Terminal-Spark Plug	
			333	691060	Armature-Magneto	877	790544	Wire/Connector- Alternator (Used Before Code Date 09081200).	
			334	691061	Screw (Magneto Armature)	1005	791236	Fan-Flywheel	
211	691019	Spring-Governed Idle (No Color) (Used After Code Date 10072200).	474	696458	Alternator	1012	797926	Retainer-Link (Control Bracket)	
		796225	501	797375	Regulator	1051	691265	Ring-Retaining	
		Spring-Governed Idle (No Color) (Used Before Code Date 10072300).	510	696541	Drive-Starter	1054	280275	Tie-Cable	
			526	697551	Screw (Regulator)	1059	698516	Kit-Screw/Washer	
			635	66538s	Boot-Spark Plug	1070	791680	Screw (Flywheel Fan)	
			668	691215	Spacer (Rotating Screen)	1090	691293	Retainer-Brush	
			668A	691500	Spacer (Rotating Screen)	1119	691183	Screw (Alternator)	



850



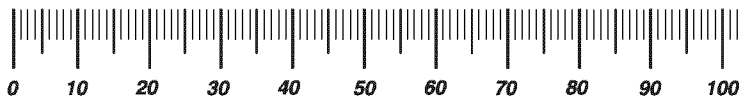
# 445877-0132-B1

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
3	391086s	Seal-Oil (Magneto Side)	121	797890	Kit- Carburetor Overhaul	672	690234	Gasket- Carburetor Plate
7	693997	Gasket-Cylinder Head	137	690994	Gasket-Float Bowl	691	790574	Seal-Governor Shaft
9	690937	Gasket-Breather	150	690995	Gasket-Nozzle	842	691031	Seal-O Ring (Dipstick Tube)
12	697227	Gasket-Crankcase	163	691001	Gasket-Air Cleaner	850	100106	Sealant-Liquid
20	795387	Seal-Oil (PTO Side)	276A	794271	Washer-Sealing	868	690968	Seal-Valve
51	795123	Gasket-Intake	276	695410	Washer-Sealing	883	690970	Gasket-Exhaust
51A	690950	Gasket-Intake	358	694012	Gasket Set-Engine	987	691000	Seal-Throttle Shaft
51B	690949	Gasket-Intake	524	691032	Seal-Dipstick Tube	1022	690971	Gasket-Rocker Cover
104	694918	Pin-Float Hinge	633	699813	Seal- Choke/Throttle Shaft (Choke Shaft)	1095	694013	Gasket Set-Valve
105	698537	Valve-Float Needle	633A	699813	Seal- Choke/Throttle Shaft	1124A	841653	Seal-O Ring (Fuel Transfer Tube)

# Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs		in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

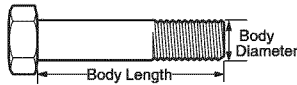
The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread Diameter (mm)  
Inside Diameter (in)  
Threads per inch

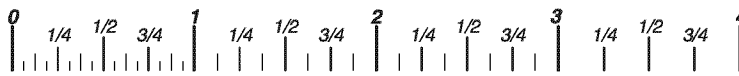
Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm)  
Body Diameter  
Distance between threads (mm)  
Threads per inch  
Body Length (mm)  
Body Length (in)

Screw, 1/2- 16 x 2



## Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); If a second number is present it represents the *threads per inch* (distance between threads).

When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50 ), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (1.25 thread diameter). The final number is the body length of the bolt or screw, 2 inches (50mm).

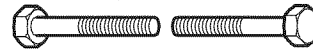
Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

## NOTES

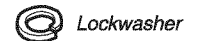
- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade5 torques.
  - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

## Common Hardware Types

Hex Head Capscrew

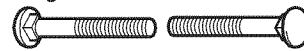


Washer



Lockwasher

Carriage Bolt



Hex Nut

## Wrench & Fastener Size Guide

1/4" Bolt or Nut Wrench—7/16"	5/16" Bolt or Nut Wrench—1/2"	3/8" Bolt or Nut Wrench—9/16"	7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

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