



**544955C** JR SODCUTTER 5.5HP HONDA 18"



MAN 4164661 Rev. A 12-2009

### CALIFORNIA

### **Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

### **A** WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### CALIFORNIA

### **Proposition 65 Warning**

Battery posts, terminals, wiring insulation, 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.

### JR SODCUTTER

### **IMPORTANT MESSAGE**

Thank you for purchasing this Schiller Grounds Care, Inc. product. You have purchased a world class product, one of the best designed and built anywhere.

This machine comes with an Operation and Parts Manual. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand this manual. Treat your machine properly, lubricate and adjust it as instructed, and it will give you many years of reliable service.

Your safe use of this Schiller Grounds Care, Inc. product is one of our prime design objectives. Many safety features are built in, but we also rely on your good sense and care to achieve accident-free operation. For best protection, study the manual thoroughly. Learn the proper operation of all controls. Observe all safety precautions. Follow all instructions and warnings completely. Do not remove or defeat any safety features. Make sure those who operate this machine are as well informed and careful in its use as you are.

See a Ryan dealer for any service or parts needed. Schiller Grounds Care, Inc. service ensures that you continue to receive the best results possible from Schiller Grounds Care, Inc. products. You can trust Ryan replacement parts because they are manufactured with the same high precision and quality as the original parts.

Schiller Grounds Care, Inc. designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this machine only as directed in the manual, keep it in good repair and follow safety warnings and instructions. You'll always be glad you did.

One Bob Cat Lane	
Johnson Creek, WI 53038-0469	
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## Schiller Grounds Care, Inc.



### NOTICE !!!

Unauthorized modifications may present extreme safety hazards to operators and bystanders and could also result in product damage.

Schiller Grounds Care, Inc. strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Schiller Grounds Care, Inc. Engineering Department. Any Schiller Grounds Care, Inc. product that is altered, modified or changed in any manner not specifically authorized after original manufacture-including the addition of "after-market" accessories or component parts not specifically approved by Schiller Grounds Care, Inc. will result in the Schiller Grounds Care, Inc. Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Schiller Grounds Care, Inc. will be considered the responsibility of the individual(s) or company designing and/or making such changes. Schiller Grounds Care, Inc. will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.

# Schiller Grounds Care, Inc. SERIAL NUMBER

One Bobcat Lane Johnson Creek, WI 53038 U.S.A Phone: 920-699-2000 Faxi 920-699-3683

MODEL NUMBER

MODEL NUMBER: This number appears on sales literature, technical manuals and price lists.

SERIAL NUMBER: This number appears only on your mower. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.



This symbol means: ATTENTION! **BECOME ALERT!** 

Your safety and the safety of others is involved.

#### Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Schiller Grounds Care, Inc. machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

### **A**DANGER

DANGER indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.

### 

**WARNING** indicates a hazardous situation which. if not avoided, **COULD** result in death or serious injury.

### 

**CAUTION** indicates a hazardous situation which, if not avoided, **COULD** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

### CAUTION

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, MAY result in property damage.

#### **MACHINE PREPARATION**

Operator preparation and training

### Read the Operation & Safety Manual

 If an operator or mechanic cannot read English, it is the owner's responsibility to explain this material to them. If any portion of this material is unclear, contact your factory representative for clarification.



- Become familiar with the safe operation of the equipment, operator controls and safety signs. Be prepared to stop the engine quickly in an emergency. Do not operate or allow another person to operate this machine if there are any questions about safety.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Wear appropriate clothing, including safety goggles or safety glasses with side shields when operating. Do not operate barefoot or wearing open sandals. Long hair, loose clothing or jewelry may get tangled in moving parts.
- Wear hearing protection.
- Wear safety glasses.
- Never allow underage children, unskilled or improperly trained people to operate this equipment. Local regulations can restrict the age of the operator.
- Keep warning labels and this operator's manual legible and intact. Replacement labels and manuals are available from the factory.
- Do not operate machine while under the influence of drugs or alcohol.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

#### SITE PREPARATION AND CIRCUMSTANCES

- Evaluate the terrain to determine how to safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Clear the area to be cut of objects such as rocks, toys, wire or other debris that may be thrown or get tangled in the sod cutter.
- Be sure the area is clear of pets and people, especially young children. Never assume they will remain where you last saw them. Stop the machine if any enter the area.
- Cut sod only in daylight or in good artificial light.

#### **MACHINE PREPARATION**

- Check operator presence interlock system and brake operation. Adjust or repair any problems before using.
- Do not tamper with or defeat safety devices.
   Keep guards, shields and interlock safety devices in place and in proper working condition. They are for your protection.
- Keep all fasteners such as nuts, bolts and pins well secured.
- Visually inspect blade and blade bolts for wear or damage. Replace worn or damaged blades and bolts.
- Verify that machine and attachments, if any, are in good operating condition.
- Do not engage blade until ready to cut sod.

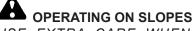
### **OPERATING SAFELY**

#### IN GENERAL

- Use extra care when loading or unloading the machine into a trailer or truck.
- Use caution when making turns and crossing roads and sidewalks. Stop blade when not cutting sod.
- Do not run the engine in an enclosed area where dangerous carbon monoxide fumes can collect.
- Never leave a machine unattended. Always turn off blade and stop engine when leaving the operator position. When leaving the machine be sure the wheel drive clutch is engaged.
- Use extreme caution when reversing or pulling machine towards you.

#### STARTING

- Start according to instructions in this manual or on the machine.
- Before attempting to start the engine, make sure the master clutch is disengaged.
- \_ When starting the engine, make sure hands and feet are clear of the blade.
- Do not change engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.



USE EXTRA CARE WHEN WORKING ON SLOPES

- Do not operate on slopes if uneasy or uncertain. Ultimate responsibility for safe operation on slopes rests with the operator.
- Do not operate on steep slopes.
- Keep all movement on slopes slow and gradual.
- Do not cut sod near drop-offs, ditches or embankments. The machine could suddenly turn over if a wheel runs over the edge or an edge caves in.
- Do not turn on slopes unless necessary, and then turn slowly and downhill when possible.
- Be sure of your footing on slopes.

#### INTERRUPTING OPERATION

- Before leaving the operator's position:
  - Park on level ground.
  - Disengage the master clutch.
- Shut off the engine.
- Disengage the master clutch and wait until the blade stops moving then disengage the blade clutch:.
  - when not cutting sod;
  - for transport;
  - when crossing surfaces other than grass.
- Stop the engine, disengage the master clutch and wait until the blade stops moving:
- before refueling;
- before making blade adjustment .
- Stop the engine, disengage the master clutch, and disconnect the spark plug wire(s):
  - before clearing blockages;
  - before checking, cleaning or working on the machine;
- after striking a foreign object. Inspect the machine for damage and make repairs before restarting;
- if the machine begins to vibrate abnormally: shut off machine immediately. Inspect and make repairs as needed before restarting;
- except for repairs or adjustments as specifically noted, such as for carburetor adjustment, where the engine must be running. Keep hands and feet clear of moving parts in these circumstances.
- Allow the blade to come to a complete stop when stopping operation to clear blockages, unclog, inspect the machine, do maintenance or repair.
- Reduce the throttle setting during engine shutdown and, if the engine is provided with a shutoff valve, turn the fuel off at the conclusion of operation.

### JR SODCUTTER

### MAINTENANCE SAFETY

#### In general

- Maintain machine according to manufacturer's schedule and instructions for maximum safety and best results.
- Park machine on level ground.
- Never allow untrained personnel to service machine.
- Adjust or repair only after the engine has been stopped and the blade has stopped moving.
- Replace parts if worn, damaged or faulty. For best results, always replace with parts recommended by the manufacturer.
- Do not dismantle the machine without releasing or restraining forces which may cause parts to move suddenly.
- Provide adequate support, e.g. jack stands for lifted machine or parts if working beneath.
- Do not put hands or feet near or under rotating parts.
- Clean up spilled oil or fuel thoroughly.
- Replace faulty mufflers.
- To reduce fire hazards, keep the engine, muffler, and fuel storage area free of grass, leaves, debris buildup or grease.

#### MAINTENANCE AND ADJUSTMENTS

- Disconnect spark plug wire(s) before doing any maintenance.
- Particular care must be taken when adjusting the carburetor while the engine is running. Keep hands and feet clear. Shut off blades.
- When working underneath lifted parts or machines, make sure adequate support is provided.
- Do not dismantle the machine without releasing or restraining forces which can cause parts to move suddenly.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Replace worn or damaged parts for safety.

The sod cutter blade is sharp and can cut. Use extra caution when handling. Remove obstructions with care. Wrap the blade or wear gloves.

- Only replace blade. Never straighten or weld.
- Keep other persons away from blades.

### Fuel

- Gasoline and diesel fuels are flammable; gasoline vapors are explosive. Use extra care when handling.
- Store only in containers specifically designed for fuel.
- When refueling or checking fuel level:
  - Stop the engine and allow to cool;
  - Do not smoke:
  - Refuel outdoors only;
  - Use a funnel:
  - Do not overfill:
  - If fuel is spilled, do not attempt to start the engine until the spill is cleaned up and vapors have cleared.

Sparks from static electricity can start fires or cause explosions. Flowing fuel can generate static electricity. To prevent static electricity sparks:

- Keep containers electrically grounded. Do not fill containers in a vehicle or on a truck or trailer bed with a plastic liner. Fill containers on the ground away from the vehicle.
- When practical, remove gas powered equipment from the truck or trailer and refuel it on the ground. If equipment must be refueled on the truck or trailer, refuel from a portable container rather than a dispenser nozzle.
- Keep the dispenser nozzle in contact with the rim of the fuel tank or container opening until fueling is complete. Do not use a nozzle lock-open device.
- Replace caps on fuel cans and tanks securely.

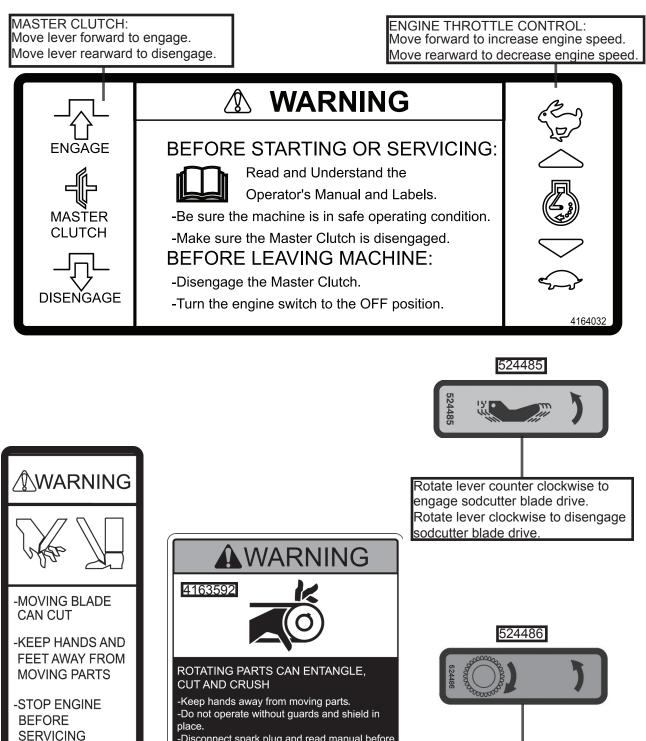


### Blades

#### SET-UP

- To prevent injury, wear eye protection and stand clear whe cutting banding. Banding is under tension and may snap back when cut.
- 1. Remove crate top, sides and plastic covering unit. Remove the banding attaching the Jr. Sodcutter to the pallet.
- 2. Roll the Jr. Sodcutter off the pallet. The unit can also be driven off the pallet, but first read the Safety, Controls, and Operation sections of this manual, then check the oil and add gas.
- 3. Dispose of pallet, crate, plastic and banding in a responsible manner.





-Disconnect spark plug and read manual before performing any service or maintenance.

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Rotate lever counter clockwise to engage wheel drive. Rotate lever clockwise to disengage wheel drive.

#### MASTER CLUTCH CONTROL LEVER(A)

Engages / disengages drive belt. Applies brake to drive belt when pulled FIRMLY to rear.

#### **THROTTLE CONTROL (B)**

Controls engine speed.

#### **ENGINE SWITCH**

(Located on the engine) Move to "ON" position to start engine. Move to "OFF" position to stop the engine.

#### **OPERATOR PRESENCE CONTROL (C)**

With master clutch control engaged, engine will stop if operator presence lever is not depressed.

#### BLADE DEPTH CONTROL LEVER (D)

Raises or lowers cutting blade.

#### BLADE DEPTH CONTROL LOCKING LEVER (E)

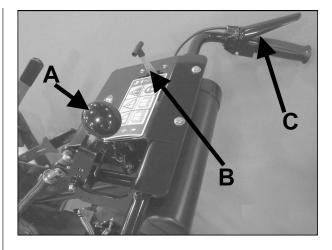
Locking lever holds blade depth control in desired position.

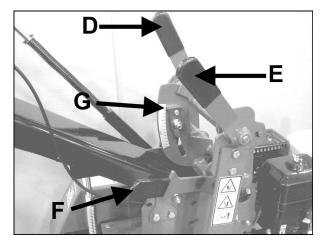
#### **BLADE ANGLE LOCKING LEVER (F)**

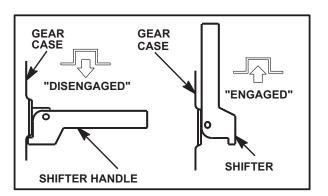
Locks blade angle.

#### **DEPTH STOP (G)**

Allows resetting of blade depth to the previous cutting height.







### CONTROLS

### Jr. Sodcutter

BLADE AND WHEEL SHIFTER HANDLES (H & J)

Engage and disengage blade for cutting and gears for driving Sodcutter.

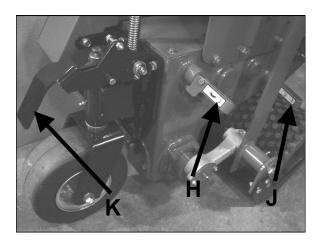
#### CASTER WHEEL LOCKING LEVER (K)

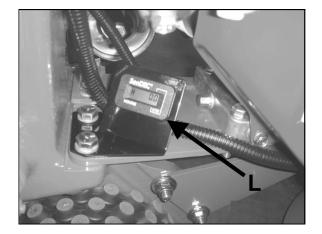
Allows for straight cutting when locked (down) and curved cutting when unlocked (up).

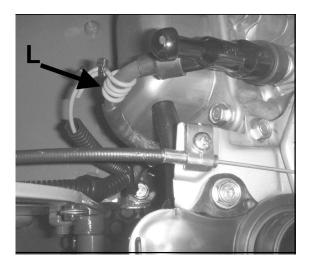
#### HOUR METER - (L)

Shows how many hours that the engine has run. The far right digit is tenths of an hour (1/10).

-The wire from the hourmeter is wrapped around the spark plug wire four (4) turns and secured with Ty-raps.









	E-OPERATION CHECK LIST	BEFORE STARTING THE ENGINE
(0  -	PERATOR'S RESPONSIBILITY) Review and follow all safety rules and safety	1. Be familiar with the controls, how each functions, and what each operates.
-	decal instructions. Check that all safety decals are installed and in	<ol> <li>Check engine oil level. Add oil if necessary, following the engine manufacturer's recommendations. Refer to engine manual</li> </ol>
	good condition. Replace if damaged. Check to make sure all shields and guards are	supplied with machine.
	properly installed and in good condition.	3. Open the fuel valve.
-	Check that all hardware is properly installed and secured.	4. Fill the fuel tank with the amount and type of fuel recommended by the engine manufacturer.
-	Check to be sure engine is free of dirt and debris. Pay particular attention to the cooling fins, governor parts and muffler. Clean air intake screen. Check air cleaner; service is necessary.	<ol> <li>CHOKE: For cold starts, set the throttle lever to the half-open position and move the choke to the ON position. For warm starts set the throttle to the half-open position and the choke to the OFF position.</li> </ol>
-	Inspect area. Remove stones or other hard objects that might cause damage.	OPERATOR PRESENCE INTERLOCK SYSTEM
-	Check that there are no underground utilities in work area.	To start the engine: - The master clutch must be disengaged.
-	Check all lubrication points and grease as instructed in manual.	To operate the machine: - The operator must hold down the operator presence lever or engaging the master clutch will
-	Perform a functional check of the safety interlock system each time you operate the unit. If it doesn't work, repair before using the machine.	kill the engine.
		A WARNING
		Gasoline is extremely flammable and highly explosive under certain conditions. BE SURE to install fuel cap after refueling.
		Fill fuel tank with good quality, clean, unleaded regular gasoline to the level recommended by the engine manufacturer.
		TO CHECK OR ADD FUEL:
		<ul> <li>Use a funnel to avoid spilling.</li> <li>Do it outdoors.</li> <li>Do not smoke.</li> <li>Stop the engine; allow to cool.</li> </ul>
		<ul> <li>Stop the engine, allow to cool.</li> <li>Do not overfill.</li> <li>Clean up spilled fuel.</li> </ul>

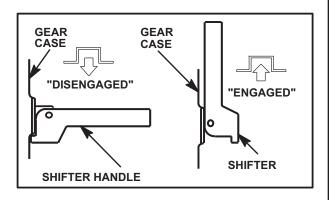
#### STARTING THE ENGINE

- 1. Move the engine switch to the "ON" position.
- 2. Pull the recoil starter to start the engine.
- 3. If the choke is ON when the engine starts, gradually back it off until the engine runs with no choke at all.

#### **MOVING OF UNIT**

To move unit without running blade:

- Place blade shifter handle in "disengaged" position (handle will point straight out from unit) See Figure 1.
- 2. Set engine speed to slow.
- 3. Engage drive shifter handle.
- 4. Depress operator presence control.
- 5. Engage master clutch control lever.
- 6. Adjust throttle to desired walking speed.
- To move unit **without running the engine**, put drive shifter handle and clutch control lever in the "disengaged" position. Push unit to move it.



#### CUTTING SOD

**WARNING:** Underground utilities. Electrocution, explosion, service disruption risk.

Before beginning any work, check with the local authorities for underground utility location and depth. Do not operate where there is any risk of contacting underground utilities. Contacting buried utilities could result in a service outage. Contacting buried electrical wires could result in electrocution. Contacting a buried gas line could result in an explosion.

This precaution is especially important when using attachments such as the mole blade or trencher which operate at greater depths.

- Move machine to the area where sod is to be cut. With the engine off and the master clutch disengaged, stand on the right side of the machine. Loosen the Blade Depth Control Locking Lever with your right hand, then use the handle bar to tip the machine forward and hold it with your left hand. Lower the Blade Depth Control Lever with your right hand until it hits the preset Depth Stop. Tighten the Locking Lever.
- 2. Start the engine, then engage the wheel drive and the blade drive with the Wheel Drive Shifter Lever and the Blade Drive Shifter Lever.
- 3. For straight cutting, leave the caster wheel locking lever down. For cutting irregular or curved shapes, raise the caster wheel locking lever up and forward.
- 4. Adjust the throttle to full speed. With the machine tipped forward, engage the Master Clutch. The machine will start moving forward and the blade drive will operate. Lower the machine into the sod and cut for a short distance.
- Stop the machine and check the sod thickness. Adjust the Depth Stop and blade if necessary. See Adjustment section.
- 6. Continue cutting. At the end of each pass lift up on the handle to raise the blade out of the sod and turn around for the next pass.

### **JR SODCUTTER**

DRIVE

### DRIVE BELT ADJUSTMENT

Keep belt free of oil and dirt, and adjusted to proper tension at all times.

Belt tension is adjusted by loosening four (4) engine mounting bolts and shifting engine on the base.

Belt tension is correct when the distance between the roll pin and sleeve on the master clutch rod is 1" to 1 1/4" (25-30mm) when the master clutch is engaged.

#### BRAKE BAND ADJUSTMENT

When adjusted properly:

- With the Master Clutch Control Lever engaged, the brake band is not braking the large drive pulley.

- When the Master Clutch Control Lever is disengaged, there will be some brakig occuring on the large drive pulley.

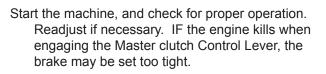
- When the Master Clutch Control Lever is disengaged, and pulled back firmly, the brake will fully stop the large drive pulley.

- 1. For less braking, loosen the locknut, unscrew the adjusting screw, then retighten the locknut.
- 2. For more braking, loosen the locknut, turn the adjusting screw in, then retighten the locknut.

### ADJUSTING DEPTH OF CUT

3/4" (20mm) is a good general starting depth of cut. Depth of cut can be varied from there depending on conditions and what you are trying to accomplish.

- Make an initial depth setting. Park the machine on a hard surface. Loosen depth control locking lever E and lower depth control lever D until the blade rests on the surface.
- Loosen the depth gauge lock E and set top of depth gauge G to the 3/4" (20mm) mark on the label. Tighten the depth gauge lock knob to secure the depth gauge setting.
- Use your left hand to tip the machine forward while lowering the depth control lever D until the depth control crossbar hits the Depth Stop G. Tighten the locking lever E to lock in the depth setting, make a trial run in turf. Check the depth of cut.



BELT

1" (25.4 mm)

IDLER PULLEY

BLOCK

0

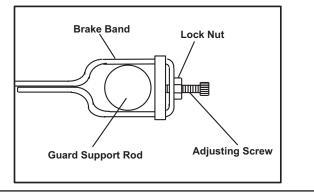
ENGINE PULLEY

ENGINE BOLT

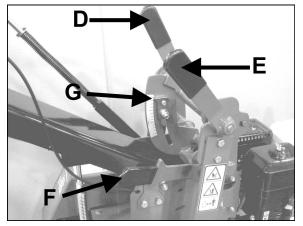
> ENGINE MOUNT PLATE

 $\bigcirc$ 

ENGINE

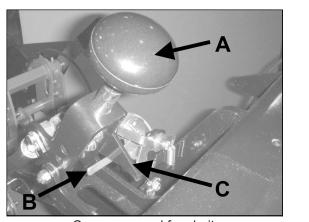


- 4. Re-adjust the depth gauge G and depth control lever D if necessary.
- **NOTE:** Numbers on depth gauge do not necessarily represent thickness of sod being cut. The numbers are useful as a reference for making changes.



#### ADJUSTING OPERATOR PRESENCE CONTROL

- 1. To adjust operator presence cable, pull clutch control handle **A** rearward as far as possible.
- 2. Press operator presence handle (right handlebar) down as far as possible.
- Adjust cable until the pivot arm C contacts the arm extending from the operator presence switch B.
- 4. Tighten cable clamp to secure cable. Check for proper operation.

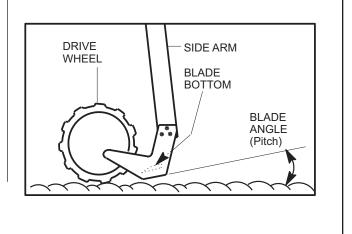


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#### **BLADE ANGLE (PITCH)**

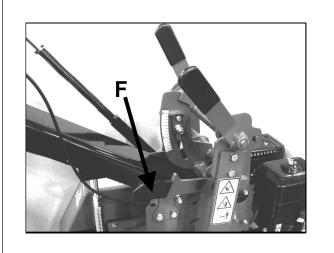
Under normal operating conditions, blade angle is minimal (blade bottom is flat). In extremely hard soil or when cutting with a dull blade, the blade may want to ride out of the ground. It may then help to adjust blade angle forward (see Adjusting Blade Angle below). A short trial run will indicate which is the best blade angle.

NOTE: Extreme blade angles put extra stress on the side arms. To reduce stress on the machine, operate with the flattest blade angle that gives satisfactory results.



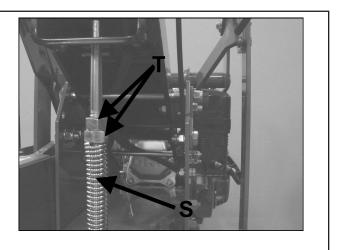
#### ADJUSTING BLADE ANGLE (PITCH)

- 1. Loosen blade angle control locking lever **F** and move H-frame forward or backward until blade is at desired angle (pitch).
- 2. Tighten blade angle control locking lever F.



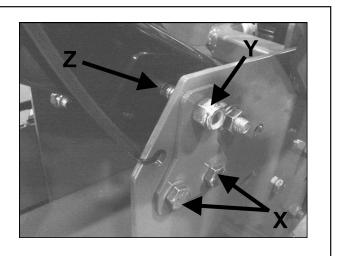
#### HANDLE SUPPORT SPRING

This spring **S** helps support the handle. If the four (4) isolator handle mounts are sagging or distorted, the two locking adjustment nuts **T** can be tighted downward to increase the spring force and raise the handle.



#### HANDLE STOP BOLTS

These two bolts **Y** limit the amount of handle movement. This prevents damage to the handle isolators, and provides positive control of the machine when extra effort is required to lift or turn. The rear stop bolt position is adjustable.. Loosen the two bolts **X** on the bolt centering plates on each side and tighten with the stop bolts centered in the two handle holes **Z**.

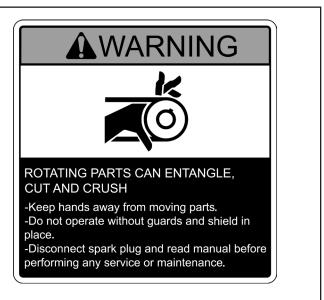


### A WARNING

When replacement parts are required, use genuine **Schiller Grounds Care, Inc.** parts or parts with equivalent characteristics, including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.

Carbon monoxide present in the exhaust is an odorless and deadly gas. Never start or run the engine inside where exhaust fumes can collect. Provide enough fresh air to keep fumes from getting too strong.

Replace any warning decal that becomes illegible immediately.



#### DAILY MAINTENANCE

#### **Operator Presence System**

For the engine to run, the Operator Presence Lever must be held when the Master Clutch Control is engaged.

#### To Check:

- 1. Start the engine and run at 1/2 throttle with the master clutch disengaged.
- 2. Engage the master clutch holding the Operator Presence Lever. Release the operator presence lever and the engine should stop.

Repair the machine before using if the Operator Presence System does not kill the engine.

#### Blades:

Check for damage. Replace any broken, cracked or otherwise damaged blades. Do not weld or straighten blades. Replace or sharpen dull blades. See sharpening instructions.

#### Hardware:

Tighten any nuts and bolts that are found loose. Replace any broken or missing cotter pins. Repair any other problems before operating.

#### Engine:

See engine manual for oil change intervals and oil specifications. See engine manual for air cleaner service intervals and service procedure.

#### Lubrication:

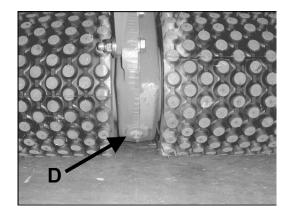
The gear case is initially filled with 3 1/2 pints (1.7 L) of EP 140 Gear Lube. Do not add to this amount unless oil is changed or lost through leakage. Gear case drain plug **D**.

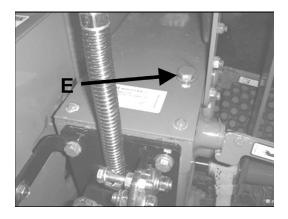
On all pressurized lubrication fittings use a good grade of Lithium Based lubricant.

The Jr. Sodcutter has 6 lubrication fittings. Lubricate pitman arms (1 each side) and side arms (1 each side) after every 4 hours of use.

Lubricate side arm pivots (1 each side - top of unit) after every 8 hours of use.

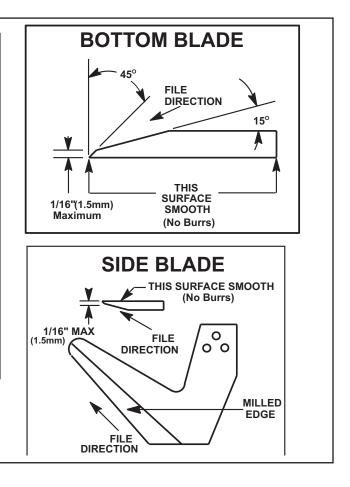
Check gear case lubricant level using dipstick **E** located on top of gear case. Check lube with dipstick sitting on threads, do not screw in.





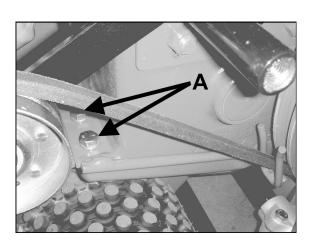
#### **BLADE SHARPENING**

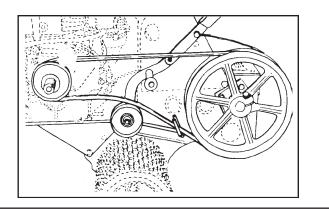
- 1. Hand file bottom blade at 45° angle until no flat remains.
- 2. To keep cutting edge less than 1/16" (1.5mm) on  $45^{\circ}$  angle, grind milled surface back at  $15^{\circ}$  to less than 1/16"(1.5mm).
- 3. Hand file side blades at 45° until no flat remains.
- To keep cutting edge less than 1/16"(1.5mm) on 45° angle, grind milled surface back at 15° to less than 1/16"(1.5mm).



#### DRIVE BELT REPLACEMENT

- 1. Remove shield on left side of unit.
- 2. Remove nut securing brake band to clutch control rod.
- 3. Remove cotter pin on outside of guard support rod and move brake band over to nut on rod.
- 4. Loosen two bolts **A** securing belt guide to provide clearance when removing belt.
- 5. Remove belt from engine pulley. To do this, loosen upper and lower belt guards, or remove the engine pulley.
- 6. Install new belt in reverse procedure. Route the belt as shown.
- 7. Adjust belt and brake band. See Adjustment Section.





#### DRIVE CHAIN REMOVAL

- 1. Raise unit, place on adequate supports and remove belt guard.
- 2. Remove four (4) screws securing gear case cover.
- 3. Remove throttle cable from engine and lay behind cam case.
- 4. Remove dipstick from cover.
- 5. Remove screw, flat washer, nut and bushing from right lower side of "H" frame.
- 6. Using a screwdriver, lift gear case cover to break sealant bond and remove cover.

- 7. Drain oil out of front cavity on case, and turn drive wheels until master link is on top of sprocket.
- 8. Connect new chain to old with master link. Rotate drive wheels until new chain is pulled around. Remove old chain and connect new chain with a new master link.
- Complete installation by reversing procedure Clean mating surfaces on case and cover. Apply 3M Scotch Grip 847 or an equivalent adhesive to case cover before installation.

DR	RIVE WHEEL CHAIN SPROCKET SHAFT		
1.	Follow steps 1 thru 7 in drive chain removal section.	5.	Install axle nut on end of shaft, opposite the side of snap ring previously removed.
2.	Remove master link and remove chain from top sprocket.	6.	Using a soft hammer (lead, brass, etc.), drive shaft out of case. Sprocket can now be removed by lifting up on chain.
3.	Remove both drive wheels and axle keys.		
		7.	Top sprocket and chain should be checked for
4.	Remove seal in case and snap ring retaining bearing in case.		wear and replaced if necessary.
		8.	Reassemble in reverse procedure using new seals and gaskets.

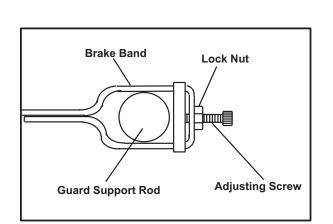
### BRAKE BAND REPLACEMENT AND ADJUSTMENT

- 1. Remove belt guard.
- 2. Remove old brake band. Retain all hardware.
- 3. Install new brake band with the large loop and hardware at the lower mounting point (on guard support rod).
- 4. Loosen the lock nut and the adjustment screw on the new brake band. Engage the Clutch Control lever and tighten the adjustment screw until the brake band is pulled snug against the belt. (See Brake Band Adjustment, pg. 5) Tighten the lock nut on brake adjustment screw. Make a test run. Stop engine and re-adjust brake band if necessary.
- 5. Re-install belt guard using original hardware.

**NOTE:** Make sure that cotter pin does not interfere with drive belt.

Routine brake band adjustment is necessary as the band and belt wear.

If brake band is not correctly attached to clutch control link, idler arm will rotate backward away from belt and no drive will occur.



#### **UPPER DRIVE SPROCKET & SHAFT**

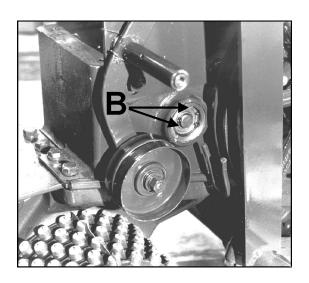
- 1. Follow steps 1 thru 6 in drive chain removal section.
- 2. Remove master link from chain. Chain does not need to be removed from lower sprocket.
- 3. Remove drive shifter assembly from gear case.
- 4. Remove blade and side arms from pivot brackets for easier access.
- 5. Remove plugs on both ends of shaft.
- 6. Remove snap rings **B** from left bearing.
- 7. Using a punch and soft hammer (lead, leather, etc.), drive shaft out left side of unit and remove large gear.
- 8. Using a bearing puller or slide hammer, remove bearing. Shaft is now removable through cam case cover opening.
- 9. Dog clutch half is removable from gear by removing snap ring.
- 10. Assemble in reverse procedure.
- 11. After installing blade shifter assembly, adjust dog clutch to provide .015" (0.39 mm) clearance between clutch faces, as shown.
- 12. Apply 3M Scotch Grip adhesive or an equivalent to gear case cover before installation.

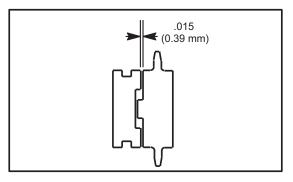
#### **BLADE DRIVE CHAIN REPLACEMENT**

- **NOTE:** To prevent small components from falling down into oil cavities and causing damage to unit, cover opening with clean rags, cardboard, etc.
- 1. Follow steps 1 thru 6 in drive chain removal section.
- 2. Remove bottom screw on bearing cage to drain

oil from rear cavity.

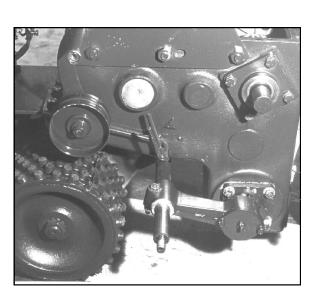
- 3. Rotate pulley shaft until master link is to front of top sprocket. Remove master link.
- 4. Rotate blade drive shaft until chain is free.
- 5. Install new chain in reverse procedure. Use 3M Scotch Grip 847 or an equivalent adhesive on case cover and bearing retainer screw.

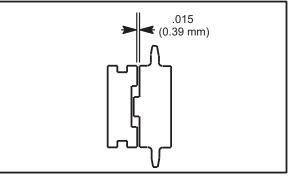




#### PULLEY SHAFT

- 1. Follow steps 1 thru 4 in belt replacement section and steps 2 thru 6 in drive chain removal section.
- 2. Remove blade from unit and remove left side arm.
- 3. Remove blade shifter assembly.
- 4. Turn pulley until master link is on top of sprocket. Remove chain from top sprocket.
- 5. Remove belt pulley and key.
- 6. Remove four (4) bearing cage screws and pull gears out left side of unit. Dog clutch and double sprocket will slide off as shaft is removed.
- 7. To remove gear and bearing, remove snap ring, slide gear off shaft and remove key. Remove bearing snap ring and remove bearing.
- 8. Assemble in reverse procedure. After blade shifter assembly is installed, adjust dog clutch to provide .015" (0.39 mm) clearance between clutch faces, as shown.
- 9. Apply 3M Scotch Grip 847 adhesive or equivalent to gear case cover before installation.



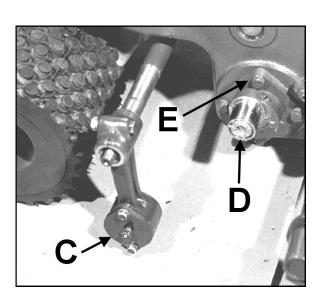


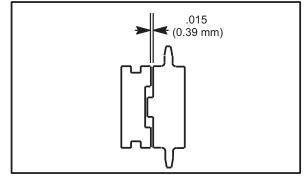
#### **BLADE SPROCKET SHAFT**

- 1. Follow steps 1 thru 6 in pulley shaft section.
- 2. Loosen clamp screw on left pitman arm **C** and remove from shaft.
- 3. Loosen clamp screw in eccentric assembly **D** and remove.
- 4. Remove two (2) top screws securing the other side arm assembly. Side arm, shaft and pitman arm, are now removable by pulling side arm out.
- 5. Remove eccentric and both bearing cages **E**. Put a pan under rear portion of case to catch oil from case cavity.
- 6. Push shaft to left of case, lift right end of shaft out of case with bearings and sprocket intact.
- 7. To remove sprocket, press bearing from shaft, and slide sprocket off.
- 8. Assemble in reverse procedure. After blade shifter assembly is installed, adjust dog clutch to provide .015" (0.39 mm) clearance between clutch faces, as shown.

**NOTE:** End play on shaft must not exceed .005 (.127 mm) clearance and should rotate freely when bearing cages are tightened. Shim as required to obtain correct clearance.

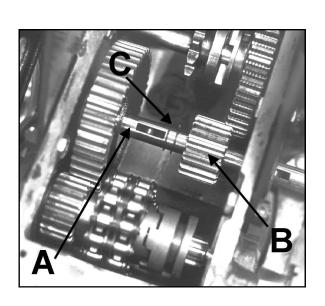
9. Apply 3M Scotch Grip 847 adhesive or equivalent to gear case cover before installation.





#### **IDLER GEAR SHAFT**

- 1. Remove belt guards.
- 2. Follow steps 2 thru 6 in drive chain removal section.
- 3. Remove plug from right side of unit.
- Remove snap ring C from groove by small gear B to left end of shaft A.
- 5. Move small gear **B** to left side (from operators position) of case.
- 6. Move shaft **A** out right side of case until large gear clears shaft for removal.
- 7. Remove key from shaft and slide snap rings **C** off end of shaft.
- 8. Small gear **B** will slide off as shaft is removed from gear case.



9. Assemble in reverse procedure. Apply 3M Scotch Grip 847 adhesive or equivalent to gear case cover before installation.

### STORAGE INSTRUCTIONS

### **WARNING**

To prevent possible explosion or ignition of vaporized fuel, do not store equipment with fuel in tank or carburetor in enclosure with open flame (for example, a furnace or water heater pilot light).

#### **Daily Storage**

- 1. Check engine oil level and air filter element daily.
- 2. Check oil level in gear case.
- 3. Close fuel valve at bottom of fuel tank.
- 4. Clean cutting blade (grass, dirt, etc.).

#### EXTENDED STORAGE

### Before the equipment is put into storage for any period exceeding 30 days:

- 1. Drain all fuel from fuel tank and lines (use a hose or fuel line, routed from fuel tank shut-off to proper container).
- 2. Start engine and run until all fuel is used from the carburetor float bowl.
- 3. While engine is warm, drain the crankcase oil and refill with the proper weight of oil corresponding to the season when the equipment will next be used.
- 4. Remove the spark plug and squirt a small quantity of engine oil into the cylinder. Turn the engine over a few times to distribute the oil.
- 5. Lubricate all lubrication fittings.
- 6. Clean and oil cutting blade to prevent rust.

### To put equipment into operation after an extended storage:

- 1. Fill fuel tank with clean fresh fuel.
- 2. Check crankcase oil level, and start engine.
- 3. Check fuel system for fuel leaks.

### **TROUBLE SHOOTING**

Jr. Sodcutter

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POSSIBLE PROBLEM	PROBABLE CAUSE	REMEDY
Blade will not stay in	A. Bottom of blade is rounded off.	A. Sharpen or replace blade. See page 15.
ground.	B. Blade angle is not properly set.	B. Adjust blade angle. See page13.
Root hair pinning on side or bottom of blade.	A. Some types of turf and soil make this a problem.	A. Keep the blade extra sharp and ground back at a low angle.
	A. Wrong type of belt construction.	A. Use only the special Ryan factory belt.
Belt jumps off.	B. Too much slack when belt tightener is disengaged.	B. Slide engine forward and readjust control rod.
Locking levers not	A. Thread wear on locking nut.	A. Replace locking nut.
tight when pulled to limit of travel.	B. Locking nut not properly adjusted.	B. Tighten locking nut on opposite end of tie rod.
Belt grabs in pulleys	A. Belt is old and frayed, or is not the type sent out with the unit.	A.Replace with factory construction belt, designed for belt tightener clutches.
and unit creeps when clutch is not engaged.	B. Rust or paint in pulley grooves.	B. Clean and polish pulleys.
	C. Engine set too far forward.	C. Move engine back.
ldler does not engage belt when clutch lever is moved forward.	A. Brake band is not attached to clutch link or is broken.	A. Reattach upper end of brake band to clutch link or replace brake band.

Jr.	N	NOTES
Jr. Sodcutter		



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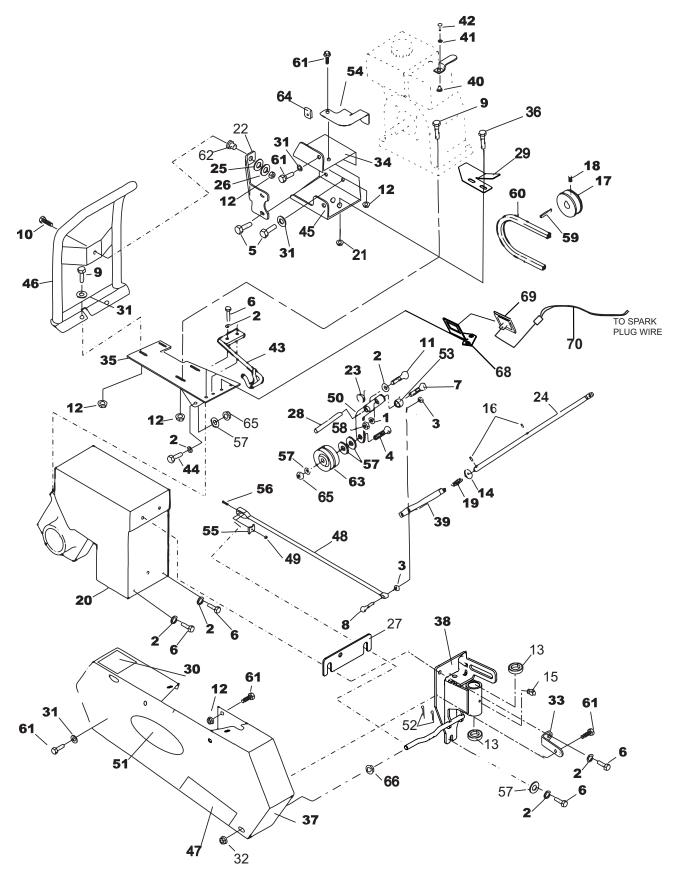
Models: 544955CJr. Sodcutter - 18 inch	Cutting width:
<b>-</b> .	544955C 18"
Engine	(457 mm)
Model 4 cycle 5.5 H.P. Honda	
Model GX160-K1QX2, GX160 OHV	Blade pitch:
9.9 cu. in. (163 cc)	Hand lever adjustment variable 0° to 9°
StarterRecoil	
Governor 3600 RPM + 100 RPM, no load	Blade speed:
Clutch spring loaded belt tightener type	1225 oscillations/min @ 3500 engine RPM
Reduction	Dimensions:
Engine to blade 2.94:1	Width
Engine to drive wheels 55.8:1	Length 49" (1244 mm)
	Height
Wheels:	Wheelbase
Drive 8" (203 mm) Dia. w/knobby	
tread vulcanized to hub	Weight:
Rear9 X 3.5 semi-pneumatic tire with	544955C
pre-packed ball bearings	
Drive:	TOUCH -UP PAINT:
Engine to gear case "A" section belt	16OZ. (0.5L) Spray can, order P/N 65334
Gear case to drive shaft	
and blade driveroller chain	
Gear case:	
Lubrication EP140 Gear lube	
Capacity 3 1/2 Pints (1.7L)	

JR SODCUTTER

# PARTS SECTION

### **DRIVE ASSEMBLY AND SIDE COVER**

### JR SOD CUTTER



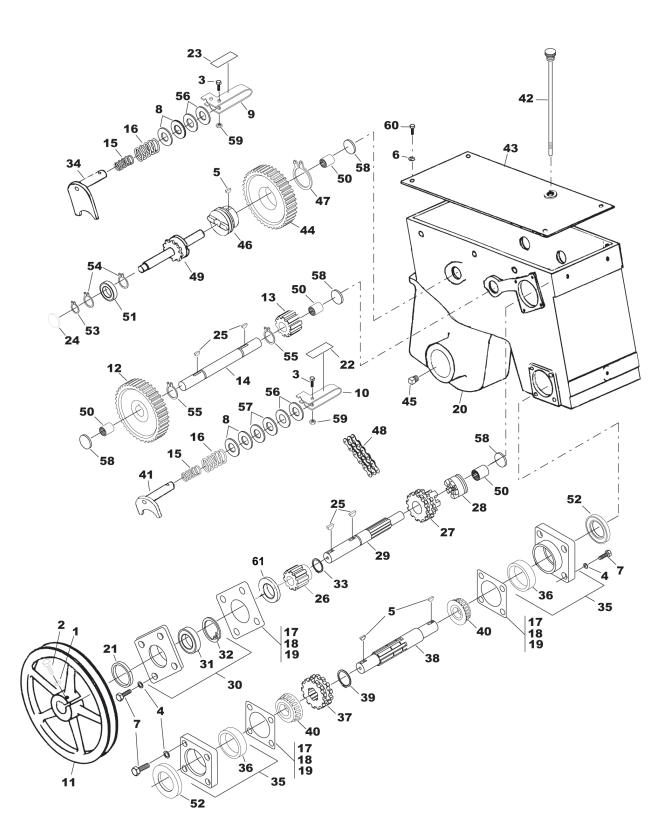
### **DRIVE ASSEMBLY AND SIDE COVER**

### JR SOD CUTTER

1 64163-95 WSHR344X.688X.065 1 49 64025-14 NUT-HEX #10-32	1
2 64006-03 LOCKWSHR-HELICAL 3/8 15 50 4164571.7 WLDMT-IDLER ARM	1
3 64001-13 NUT-HEX JAM 1/4-20 2 51 4163976 LABEL-RYAN	1
4 64123-67 BLT-HEX 3/8-16X2 1 52 64168-2 HAIRPIN	2
5 64139-01 BLT-WLF 5/16-24X3/4 4 53 819337 BUSHING	1
6 64123-50 BOLT-HEX 3/8-16X1 14 54 524610.7 BRACKET,BELT GUIDE	. 1
7 64123-68 BOLT-HEX 5/16-18X1 5 55 524574 NUT, BRAKE BAND	1
8 64123-269 BLT-HEX 1/4-20X1-1/8 1 56 64044-22 SCREW-SET #10-32X1	1
9 64139-23 BLT-WLF 5/16-18 X 1-3/4 4 (ITEMS 55, 56, 49 & 48 ARE AVAILAE	LE
10 64139-10 BLT-WLF 5/16-18X1-1/4 1 IN BRAKE BAND KIT 540274)	
11 64123-15 BOLT-3/8-16X3/4 HEX 1	
12 64141-6 NUT, 5/16-18 4 57 64163-31 WSHR 25/64X1X12	6
13 4129801 BEARING-FLANGE 2 58 64141-9 NUT-WLF 5/16-18 EL	1
14 64163-67 WASHER516X1X12GA 2 59 64164-11 KEY-3/16X3/16X1-1/4 SQ	END 1
15 85010N ZERK-GREASE 1 60 524582 BELT, V A SECT. 66" LO	
16 64176-11 PIN-COILED SPRING 3/16X1 2 61 64139-06 BLT-WLH 5/16-18X5/8	6
17 517137 PULLEY,4" DIA "A" SIZE 1 62 2702464 BUSHING,ISOLATION	1
18 64044-18 SCREW-SET 5/16-18 x 5/16 2 63 548942 PULLEY, PLAIN IDLER	
19 518535 SPRING 1 64 800889 NUT,.31-18 SPD J W/N	
20 520671.7 GEARCASE 1 65 64268-03 NUT-FL NYLON LOCK 3/	
21 64141-2 NUT-WLF 1/4-20 2 66* 524777 FILTER,AIR W/PRE-CL	
22 524773.2 BRACE-GUARD 1 67* 540374 SPARK ARESTOR W/S	
23 520785 SPRING 1 68 4163415.7 MOUNT-HOUR METER	1
24 4164474 ROD-CONTROL 1 69 4163411 METER-HOUR METER	1
25 838496 WASHER, 25 1.00.125 FLAT 1 70 4163407 WIRE LEAD- HOUR MET	
26 64163-29 WASHER-21/64 X 1 X 11GA 1	
27 4164506.7 SPACER-CASTER ASM 1 * NOT ILLUSTRATED	
28 521087 SHAFT 1	
29 4164546.7 GUIDE-BELT, JR 1	
30 4163592 DECAL,WARNING HANDS 1	
31 64163-55 WASHER .328X.75X14 GA 5	
32 64141-13 NUT-WLF 1/2-13 2	
33 520773.7 BRACKET 1	
34 4163910.7 BRACKET, BELT GUARD, TOP 1	
35 524473.2 PLATE,ENGINE MOUNT 1	
36 64139-02 BLT-WLF 1/4-20X1/2 2	
37 4163914 S-GUARD ASSY 1	
38 4164782 S-WLDMT, REAR WHL SPRT 1	
(ITEMS 13 & 15 INCLUDED)	
39 4164477.7 WLDMT-CLEVIS 1	
40 831888 SWIVEL 1	
41 831889 WASHER,SWIVEL 1	
42 831890 SCRW,SWIVEL THROTTLE 1	
(ITEMS 40-42 USED ON HONDA ENGINES ONLY)	
· /	
43 545380.2 GUIDE AY, BELT 1	
44 64123-87 BOLT-HEX 3/8-16X1-3/4 2	
45 4164580.7 BRKT-BELT GUARD,BTTM 1	
46 540244.2 GUARD AY, FRONT 1	
47 4133034 LABEL-JR SOD CUTTER 1	
48 524573 BAND, BRAKE 1	

### **GEAR CASE**

JR SOD CUTTER

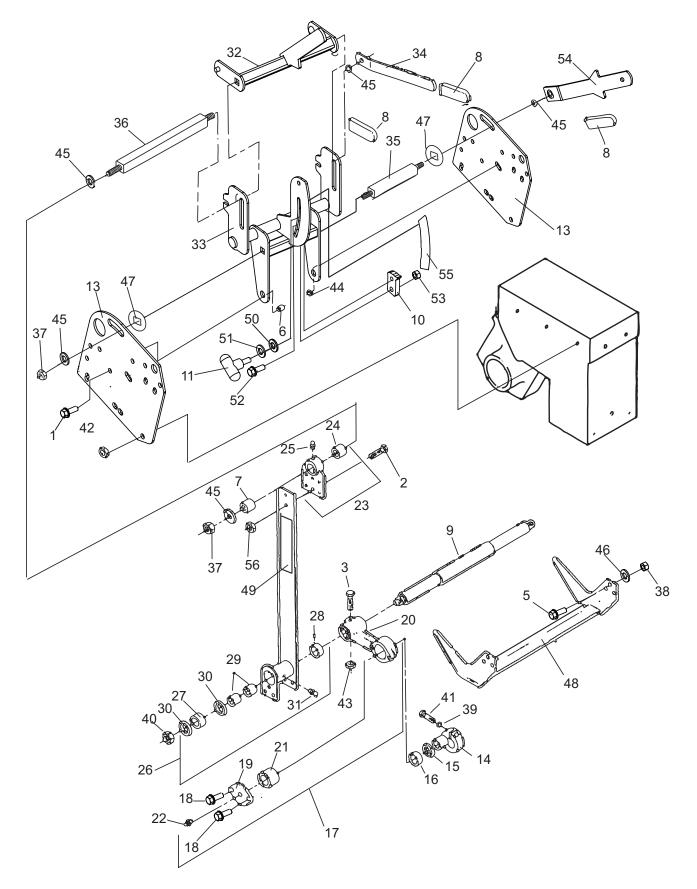


### **GEAR CASE**

### JR SOD CUTTER

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
	TANT NO.				FART NO.	DESCRIPTION	
1 2 3	64006-03 64123-67 64123-80	WSHR, 3/8 HELICAL LOCK BLT-HEX 3/8-16X2 BLT-HEX 1/4-20X1-1/4	( 1 1 2	43 44	546037.7 519404 (INCLUDES I	COVER AY, GEAR CASE GEAR,DRIVE ITEMS 45-47)	1 1
4 5 6 7	64006-02 64164-19 64006-01 64123-68	LCKWSHER-HELICAL 5/16 KEY WOODRUFF.19X.75 #9 LOCKWASHER-1/4 HELICA BOLT-HEX 5/16-18X1		45 46 47	548775 516222 548329	PLUG.25-18NPTF HS HUB RING,EXT LOCK 1.61ID.06T	1 1 - 1
8 9 10 11	515891 515896.7 515897.7 515901.7	SHIM, 64 1.25.010 YS HANDLE-WHEEL SHIFTER HANDLE-BLADE SHIFTER PULLEY	1 1	48 49 50 51	546937 547427 548080 548096	CHAIN, #50 DOUBLE SPROCKET & SHAFT AY BRG.NDL.75 1.00.75 BRG,BALL.59 1.38.43 "SS"	1 1 4 1
12 13 14 15 16	516145 516150 516156 516194 516196	GEAR GEAR SHAFT SPRING SPRING	1 1 2 2	52 53 54 55 56	548272 548321 548323 548324 548477	SEAL,OIL 1.00 SHAFT RING,EXT RET.56ID.037 RING, INTRNL RETAINING RING,EXT RET.691ID WASHER	2 1 2 2 4
17 18 19 20	520238 520239 520240 520671.7	SHIM .005 (.13MM) SHIM .010 (.25MM) SHIM .020 (.51MM) GEARCASE	A/R A/R A/R 1	57 58 59 60	548478 548482 548597 548726	WSHR,.641 1.188.04 YS FLT PLUG,EXPANSION 1.25 YS LOCKNUT, UNI-TORQUE SCRW,.25-20.75 YS RS	Г 5
21 22 23 24	521941 524485 524486 548931	SPACER, 1.00 1.12.66 DECAL, BLADE SHIFTER DECAL, WHEEL SHIFTER PLUG, EXPANSION 1.75 YS		61	4139759	SPACER-GEAR	1
25 26 27 28	64164-28 4139758 516162 516172	KEY-#808 WOODRUFF GEAR SPROCKET, CLUTCH CLUTCH	4 1 1 1				
29 30		SHAFT CAGE ASSY,BEARING ITEMS 31, 32)	1 1				
31 32 33 34 35	548131 548326 548327 544217.7 545050 (INCLUDES	BRG,BALL 1.00 2.00.50 "DA RING,INT RET 2.21OD.06 RING-LOCK SHIFTER AY CAGE AY,BEARING ITEM 36)	N" 1 1 1 1				
36 37 38 39 40 41 42	814474 516160 521253 548336 814473 545710 546033.7	CUP,TPRD RLR BRG SPROCKET SHAFT-ECCENTRIC LOCK RING (KC) CONE,TPRD RLR BRG 1.00 SHAFT AY DIPSTICK AY	1 1 1 2 1 1				

# SIDE ARMS, PITMAN ARMS AND HANDLES



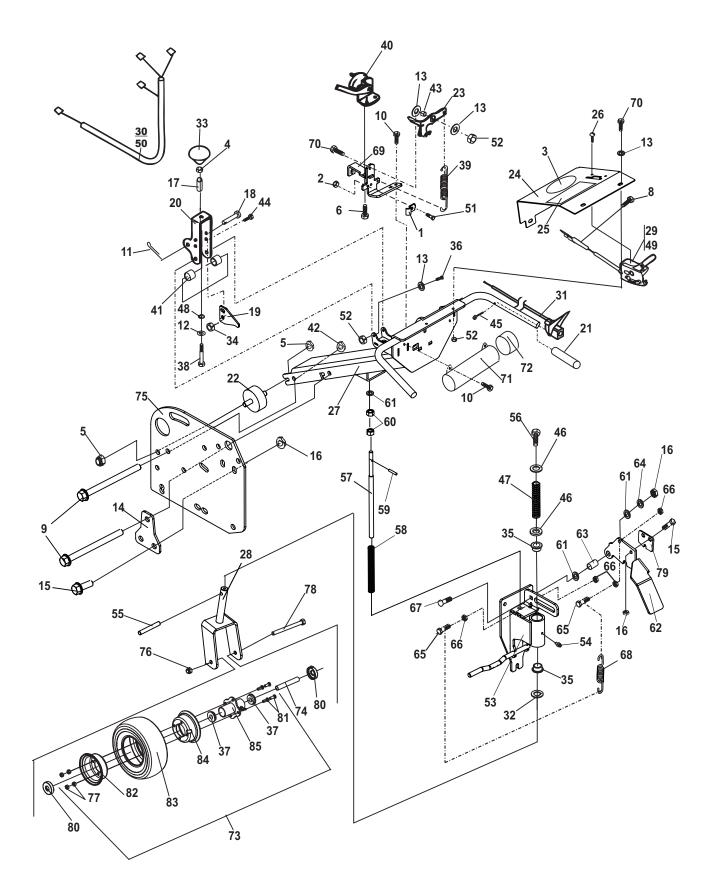
### SIDE ARMS, PITMAN ARMS AND HANDLES

### JR SOD CUTTER

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	64123-50	BOLT-HEX 3/8-16X1	2				
2	64123-107	BOLT-HEX 5/16-18X7/8	4	34	545449.2	HANDLE AY	1
3	64123-61	BLT-HEX 5/16-18X1-3/4	2	35	524549	ROD, TIE LOWER	1
4	328018	SCRW, 44-14 1.12 YS HX	6	36	524550	ROD, TIE UPPER	1
5	515011	SCRW, 31-24 1.00 ZS HX	6	37	64151-7	LOCKNUT, 1/2-13 HEX	2
6	515729	BUSHING	2	38	64025-03	NUT-HEX 5/16-24	6
7	516067	BUSH,STL.515X.874X1.015	2	39	64006-16	LOCKWSHR-5/16 HI-COLLAR	R 2
8	4135868	COVER, HANDLE	3	40	64151-27	NUT-HEX 1/2-20 EDGE LOCK	2
9	521435.7	SHAFT, LOWER	1	41	800513	SCRW-SCKT 5/16-18-1-1/4	2
	4164446	PLATE-ADJUSTMENT STO		42	548056	NUT, 44-14 YS HX UNITOR	Q 6
	4114727	KNOB-SPEED CONTROL	1	43	64268-02	NUT-FL NYLN LCK 5/16-18	2
	4164484	LABEL-CUT DEPTH, JR SOD	1	44	64268-03	NUT-FL NYLN LCK 3/8-16	5
	4164384.2	BRACKET, PIVOT	2	45	64163-99	WSHR510X1.31X.179	6
14	4164681	S-ECCENTRIC ASSY	2	46	64006-02	LOCKWSHR-HELICAL 5/16	6
• •		ITEMS 15 & 16)	-	47	4113281	WASHER, SPCL .531 SQ	2
	(			48	4132717.7	BLADE-SOD CUTTER, 18"	1
15	521424	RING	1	49	4164033	LABEL-CHF VERT	2
16	548814	RACE, INNER	1	50	2308066	WASHER-FIBER	1
17	545437	ARM AY	2	51	64163-31	WSHR-15-64X1X12GA	1
.,		ITEMS 18-22)	2	52	64018-7	BLT-CRG 3/8-16X1/1/4	1
		TEMO 10-22)		53	64268-03	NUT-FL NYLON 3/8-16	1
18	64197-025	BLT-TDFM 1/4-20X5/8	2	54	4164570.2	WLDMT-HANDLE	1
19	521425.2	PLATE - COVER	1	55	4164484	LABEL-CUT DEPTH	1
20	521427	ARM, PITMAN	1	56	64141-9	BLT-WLF 5/16-18 CL	4
21	521428	BRG,NDL 1.25 1.62 1.06	1				
22	85010-03	FITTING (KC)	1				
23	545443.2	BRACKET AY	2				
20		ITEMS 24, 25	2				
		TTENIO 24, 20					
24	521429	BRONZE BEARING	1				
25	85010N	ZERK-GREASE	1				
26	4153500	ARM AY, SIDE	2				
	(INCLUDES	ITEMS 27-31, 49)					
27	521436	BALL BEARING	1				
28	521438	GREASE SEAL	1				
29	548138	BRG,NDL.88 1.12 1.00	2				
30	548340	LOCK RING (KC)	2				
31	35027N	FTG, GREASE 90Dg.	1				
32	4164541.2	WLDMT-LEVER	1				
33	4164682	S-H-FRAME W/DECAL	1				
	(INCLUDES	ITEM 55)					
				1			

### HANDLEBAR ASSEMBLY

### JR SOD CUTTER



### HANDLEBAR ASSEMBLY

### JR SOD CUTTER

1       111898       CLAMP,CABLE       1         2       64025-15       NUT-HEX #10-24 KEPS       1         3       4161125       LABEL-RYAN       1         4       64025-04       NUT-WLF 3/8-16       1         5       64141-4       LCKWSHER-HELICAL 5/16       8         6       64197-015       BLT-TDFM 10-32X1/2 TORX 2       7         7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4       4         8       64197-023       BLT-TDFM 10-32 X 3/4 1       1         9       64123-266       BLT-HEX 3/8-16X7 2       2         70       64123-266       BLT-TDFM 1/4-20X5/8 4       1         11       64163-03       WSHR, 3/8 HELICAL LOCK 1       1         12       64006-03       WSHR, 3/8 HELICAL LOCK 1       1         13       64163-03       WSHR-256IDX620DX18GA. 8       54       85010N       ZERK-1/4-28 SEKF THRD 1         14       4164473.2       PLATE-BOLT CENTERING 2       55       4164454       ROD-CASTER LIMITER 1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X1       1         16       64268-03       NUT-FL NYLON LOCK 3/8-16 7       57       4
3       4161125       LABEL-RYAN       1         4       64025-04       NUT-WLF 3/8-16       1         5       64141-4       LCKWSHER-HELICAL 5/16       8         6       64197-015       BLT-TDFM 10-32X1/2 TORX 2       7         7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4       4         8       64197-023       BLT-TDFM 10-32 X 3/4 1       1         (USED FOR BRIGGS THROTTLE CABLE CLAMP)       50       4163183       HARNESS-JR SOD B&S 1         9       64123-266       BLT-HEX 3/8-16X7       2       52       64229-01       NUT-NYLON 1/4-20       7         9       64163-03       WSHR, 3/8       HELICAL LOCK 1       1       1       (INCLUDES ITEMS 35 & 54)       1         12       64006-03       WSHR, 3/8       HELICAL LOCK 1       1       54       85010N       ZERK-1/4-28 SEKF THRD 1         13       64163-03       WSHR256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28 SEKF THRD 1         14       4164473.2       PLATE-BOLT CENTERING 2       55       4164454       ROD-CASTER LIMITER 1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
4       64025-04       NUT-WLF 3/8-16       1         5       64141-4       LCKWSHER-HELICAL 5/16       8         6       64197-015       BLT-TDFM 10-32X1/2 TORX 2       7         7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4       4         8       64197-023       BLT-TDFM 10-32 X 3/4 1       1         (USED FOR BRIGGS THROTTLE CABLE CLAMP)       51       64152-46       SCREW-SLT HH 10-24X1/2 1         9       64123-266       BLT-HEX 3/8-16X7       2       52       64229-01       NUT-NYLON 1/4-20       7         10       64197-025       BLT-TDFM 1/4-20X5/8       4       11       64140-1       COTTER PIN-1/8X1       1       1       (INCLUDES ITEMS 35 & 54)       1         12       64006-03       WSHR, 3/8 HELICAL LOCK 1       1       54       85010N       ZERK-1/4-28 SEKF THRD       1         13       64163-03       WSHR256IDX620DX18GA. 8       54       85010N       ZERK-1/4-28 SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       55       4164454       ROD-CASTER LIMITER       1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
5       64141-4       LCKWSHER-HELICAL 5/16       8         6       64197-015       BLT-TDFM 10-32X1/2 TORX 2       7         7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4       4         8       64197-023       BLT-TDFM 10-32 X 3/4 1       1         (USED ON B & S MODELS ONLY)       50       4163183       HARNESS-JR SOD B&S 1         (USED FOR BRIGGS THROTTLE CABLE CLAMP)       51       64152-46       SCREW-SLT HH 10-24X1/2 1         9       64123-266       BLT-HEX 3/8-16X7       2       52       64229-01       NUT-NYLON 1/4-20       7         10       64197-025       BLT-TDFM 1/4-20X5/8       4       1       52       64229-01       NUT-NYLON 1/4-20       7         11       64140-1       COTTER PIN-1/8X1       1
6       64197-015       BLT-TDFM 10-32X1/2 TORX 2         7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4         8       64197-023       BLT-TDFM 10-32 X 3/4 1         (USED FOR BRIGGS THROTTLE CABLE CLAMP)       50       4163183       HARNESS-JR SOD B&S 1         9       64123-266       BLT-HEX 3/8-16X7 2       2       64152-46       SCREW-SLT HH 10-24X1/2 1         9       64197-025       BLT-TDFM 1/4-20X5/8 4       1       52       64229-01       NUT-NYLON 1/4-20 7         10       64197-025       BLT-TDFM 1/4-20X5/8 4       1       1       164782       S-WLDMT,REAR WHL ASSY 1         11       64163-03       WSHR, 3/8 HELICAL LOCK 1       1       1       1       1644373.2       PLATE-BOLT CENTERING 2       54       85010N       ZERK-1/4-28 SEKF THRD 1         14       4164473.2       PLATE-BOLT CENTERING 2       55       4164454       ROD-CASTER LIMITER 1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
7       64262-006       BLT-FLG HD 5/16-18 X 3/4 4       50       4163183       HARNESS-JR SOD B&S 1         8       64197-023       BLT-TDFM 10-32 X 3/4 1       1       (USED FOR BRIGGS THROTTLE CABLE CLAMP)         9       64123-266       BLT-HEX 3/8-16X7 2       2       64152-46       SCREW-SLT HH 10-24X1/2 1         9       64197-025       BLT-TDFM 1/4-20X5/8 4       1       52       64229-01       NUT-NYLON 1/4-20 7         10       64197-025       BLT-TDFM 1/4-20X5/8 4       1       1       53       4164782       S-WLDMT,REAR WHL ASSY 1         11       64140-1       COTTER PIN-1/8X1 1       1       (INCLUDES ITEMS 35 & 54)       1         12       64006-03       WSHR, 3/8 HELICAL LOCK 1       1       54       85010N       ZERK-1/4-28 SEKF THRD 1         13       64163-03       WSHR256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28 SEKF THRD 1         14       4164473.2       PLATE-BOLT CENTERING 2       55       4164454       ROD-CASTER LIMITER 1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4 1
8       64197-023       BLT-TDFM 10-32 X 3/4       1         (USED FOR BRIGGS THROTTLE CABLE CLAMP)       (USED ON B & SMODELS ONLY)         9       64123-266       BLT-HEX 3/8-16X7       2         10       64197-025       BLT-TDFM 1/4-20X5/8       4         11       64140-1       COTTER PIN-1/8X1       1         12       64006-03       WSHR, 3/8 HELICAL LOCK       1         13       64163-03       WSHR256IDX62ODX18GA. 8       54         14       4164473.2       PLATE-BOLT CENTERING       2         15       64123-50       BLT-HEX 3/8-16X1       6
(USED FOR BRIGGS THROTTLE CABLE CLAMP)         9       64123-266       BLT-HEX 3/8-16X7       2         10       64197-025       BLT-TDFM 1/4-20X5/8       4         11       64140-1       COTTER PIN-1/8X1       1         12       64006-03       WSHR, 3/8       HELICAL LOCK       1         13       64163-03       WSHR256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28       SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
9       64123-266       BLT-HEX 3/8-16X7       2         10       64197-025       BLT-TDFM 1/4-20X5/8       4         11       64140-1       COTTER PIN-1/8X1       1         12       64006-03       WSHR, 3/8 HELICAL LOCK 1       1         13       64163-03       WSHR256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28 SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       55       4164454       ROD-CASTER LIMITER       1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
9       64123-266       BLT-HEX 3/8-16X7       2       52       64229-01       NUT-NYLON 1/4-20       7         10       64197-025       BLT-TDFM 1/4-20X5/8       4       53       4164782       S-WLDMT,REAR WHL ASSY       1         11       64140-1       COTTER PIN-1/8X1       1       (INCLUDES ITEMS 35 & 54)       1         12       64006-03       WSHR, 3/8       HELICAL LOCK       1       1       1         13       64163-03       WSHR256IDX62ODX18GA.       8       54       85010N       ZERK-1/4-28       SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       55       4164454       ROD-CASTER LIMITER       1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
10       64197-025       BLT-TDFM 1/4-20X5/8       4       53       4164782       S-WLDMT,REAR WHL ASSY 1         11       64140-1       COTTER PIN-1/8X1       1       (INCLUDES ITEMS 35 & 54)         12       64006-03       WSHR, 3/8       HELICAL LOCK 1       1         13       64163-03       WSHR-256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28         14       4164473.2       PLATE-BOLT CENTERING 2       55       4164454       ROD-CASTER LIMITER 1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
11       64140-1       COTTER PIN-1/8X1       1       (INCLUDES ITEMS 35 & 54)         12       64006-03       WSHR, 3/8       HELICAL LOCK       1         13       64163-03       WSHR256IDX62ODX18GA. 8       54       85010N       ZERK-1/4-28       SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       55       4164454       ROD-CASTER LIMITER       1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
12       64006-03       WSHR, 3/8       HELICAL LOCK       1         13       64163-03       WSHR256IDX62ODX18GA.       54       85010N       ZERK-1/4-28       SEKF THRD       1         14       4164473.2       PLATE-BOLT CENTERING       2       55       4164454       ROD-CASTER LIMITER       1         15       64123-50       BLT-HEX 3/8-16X1       6       56       64123-15       BLT-HEX 3/8-16X3/4       1
1364163-03WSHR256IDX62ODX18GA. 85485010NZERK-1/4-28 SEKF THRD1144164473.2PLATE-BOLT CENTERING2554164454ROD-CASTER LIMITER11564123-50BLT-HEX 3/8-16X165664123-15BLT-HEX 3/8-16X3/41
14         4164473.2         PLATE-BOLT CENTERING         2         55         4164454         ROD-CASTER LIMITER         1           15         64123-50         BLT-HEX 3/8-16X1         6         56         64123-15         BLT-HEX 3/8-16X3/4         1
15 64123-50 BLT-HEX 3/8-16X1 6 56 64123-15 BLT-HEX 3/8-16X3/4 1
16 64268-03 NUT-FLINYLON LOCK 3/8-16 7   57 4164456 HANDLE-ROD SUPPORT 1
17 516544 BUSHING (PLATING) 1 58 4164606 SPRING-COMP, .75x11.75 1
18         64188-64         PIN-CLEVIS 3/8 X 1.75         1         59         64176-11         ROLL PIN-3/16 X 1         1
19         4164519.7         FLAT-SWITCH ACTIVATION         1         60         64025-19         NUT-HEX         1/2-13         2           20         5225557         HANDLE F CONTROL         60         64025-19         NUT-HEX         1/2-13         2
20         522585.7         HANDLE,CONTROL         1         61         64163-67         WSHR516X1X12GA         3           21         522585.7         HANDLE,CONTROL         1         61         64163-67         WSHR516X1X12GA         3
21 522727 GRIP,HANDLE 2 62 4164779.7 BRKT-LOCKING, STRAIGHT 1
22 4164514 ISOLATOR-3/4X2 W/2 STUDS 4 63 518438 BUSHING-STL .39X.5X.359 1
23 524472 ARM, PIVOT (PLATING) 1 64 64163-31 WSHR-25/64X1X1/2 1
24 4164683 S-CONTROL PANEL EU 1 65 64123-07 BLT-HEX 1/4-20X1-1/2 2
25 4164032 LABEL-CONTROL PANEL 1 66 64025-01 NUT-HEX 1/4-20 4
26 64152-18 SCR 8-32 X 3/8 S-TAP 2 67 64018-7 BLT-CRG 3/8-16X1-1/4 1
27       4164418.7       WLDMT-HANDLE, JRSOD       1       68       4164627       SPRING-EXTENSION       1         28       4164579.7       WLDMT-YOKE       1       69       4164475.7       BRKT-MOUNTING       1
29         540326         CONTROL ASSY,THROTTLE 1         70         64123-89         BLT-HEX 1/4-20X3/4         5           (USED ON HONDA MODELS ONLY)         71         4129802         TUBE-DOCUMENT         1
(USED ON HONDA MODELS ONLY)         71         4129802         TUBE-DOCUMENT         1           72         38061A         CAP-VINYL         1
30 540229 WIREAY 1 73 2722681 ASY-9"WHEEL 1
(USED ON HONDA MODELS ONLY) (INCLUDES ITEMS 37,77, 81-85)
(USED ON HONDA MODELS ONET) (INCEDDES HEMS 57,77, 81-85)
31 540232 CONTROLAY, KILL SWITCH 1 74 2722230-04 SPANNER 1
32 64163-07 WSHR 1-1/32X1-3/4X1/4 1 75 4164384.2 BRACKET, PIVOT 2
33 548171 KNOB 1 76 64229-05 LOCKNUT-NYLON 1/2-13 1
34 64141-6 NUT, 5/16-18 2 77 64141-1 NUT-WLF 5/16-24 4
35 4128901 BSHNG-FLNGD SINTRD IRN 2 78 64123-166 BLT-HEX 1/2-13 X 5-1/2 1
36 64189-20 BLT-HEX SOC 1/4-20X5/8 2 79 4164780.7 BRACKET-ADJUSTER 1
37 2722682 BEARING-9IN WHEEL 2 80 2722591 SPACER-3/4 BEARING 2
38 64123-270 BLT-HEX 3/8-24X2-1/4 1 81 64123-01 BLT-HEX 5/16-24X3/4 4
39 805421 SPRING, EXTENSION 1 82 2720645 S-WHL HALF, VALVE SD 1
40 806800 SWITCH,STOP LIGHT 1 83 38504 S-TIRE 9X3.5-4 SMOOTH 1
41 524577 BUSHING, .328X.63X.41 2 84 2720644 S-WHEEL HALF 1
42 64151-18 NUT-CENTER LOCK 3/8-16 2 85 2722680 HUB-9" WHEEL W/BRGS 1
43 814585 BUSHING 1
44 64139-06 BOLT-WLH 5/16-18X5/8 2
45 800896 SCRW-SET 1/4-20X3/8 1

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