RYAN®

OPERATIONS / PARTS MANUAL

544951H
JR SODCUTTER 6.5HP B&S 12"
(S/N 0700 and above)

544952H
JR SODCUTTER 6.5HP B&S 18"
(S/N 1400 and above)

544953C
JR SODCUTTER 5.5HP HONDA 12"
(S/N 1300 and above)

544954C
JR SODCUTTER 5.5HP HONDA 18"
(S/N 7500 and above)

MAN 4175987
Rev. A 04-2018

SCHILLER GROUNDS CARE

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.

⚠ 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.

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

TABLE OF CONTENTS ..... PAGE

04-2018

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.

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.

⚠DANGER

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

⚠WARNING

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

⚠CAUTION

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.

Schiller Grounds Care, Inc.

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

MODEL NUMBER

SERIAL NUMBER

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

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

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.

OPERATING ON SLOPES

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 red master clutch and wait until the blade stops moving then disengage the yellow blade clutch:.
  - when not cutting sod;
  - for transport;
  - when crossing surfaces other than grass.

– Stop the engine, disengage the red master clutch and wait until the blade stops moving:
  - before refueling;
  - before making blade adjustment .

– Stop the engine, disengage the red 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 shut-down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of operation.

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.

Blades

- 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.

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.

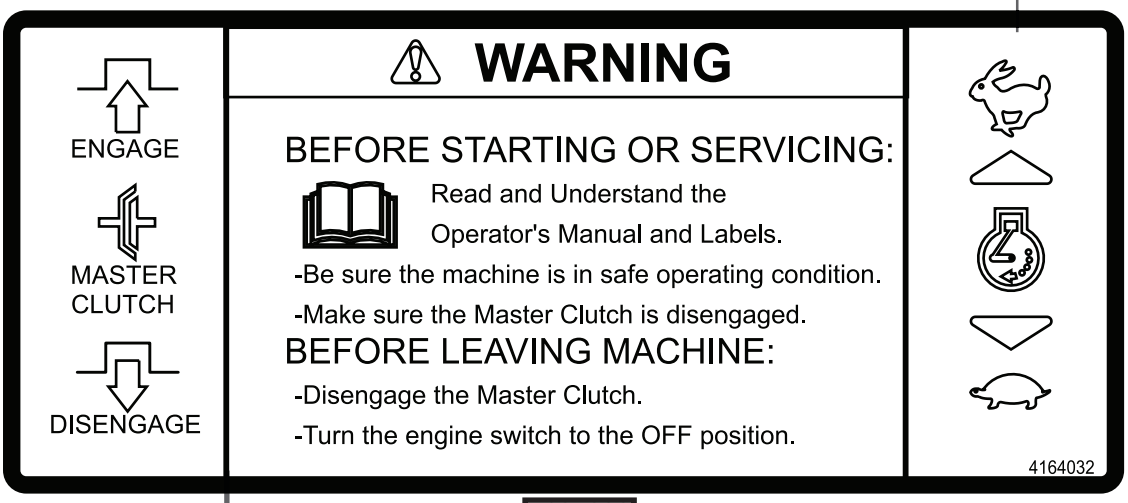
2. Roll the Jr. Sodcutter off the pallet. The unit can also be driven off the pallet, but first read the Safety, Controls, and Operation sections of this manual, then check the oil and add gas.

3. Dispose of pallet, crate, plastic and banding in a responsible manner.

SAFETY DECALS

An important part of the safety system incorporated in the vacuum is the warning labels found on the vacuum. Replace labels if damaged or illegible.

ENGINE THROTTLE CONTROL:
Move forward to increase engine speed.
Move rearward to decrease engine speed.



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RED MASTER CLUTCH:
Move lever forward to engage.
Move lever rearward to disengage.

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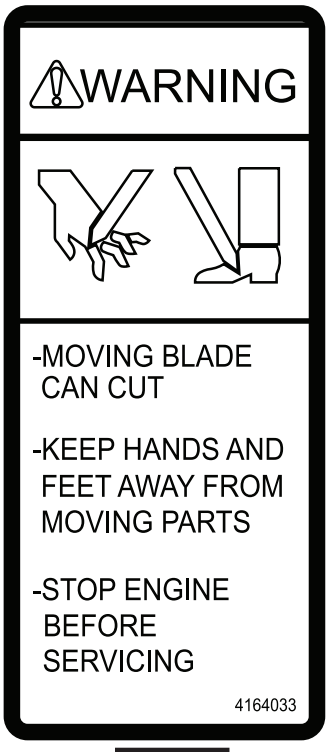

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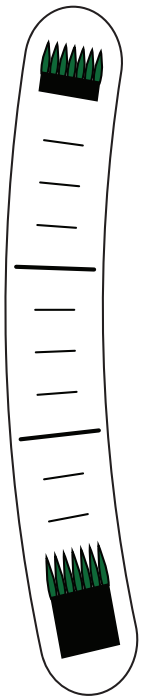

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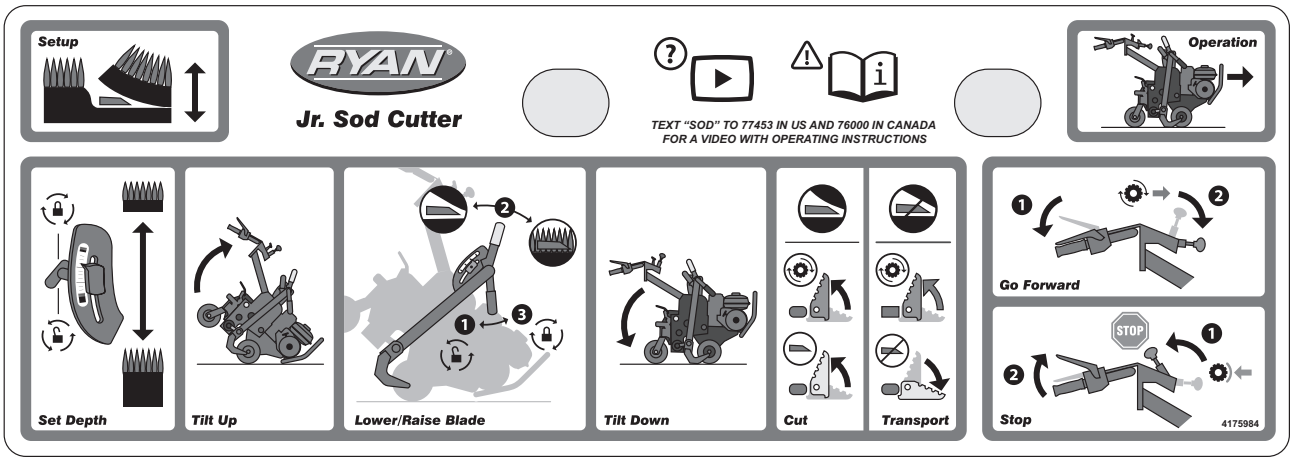
Set Depth:

Loosen the depth gauge lock knob and set top of depth gauge to desired depth. Tighten the depth gauge lock knob to secure the depth gauge setting.



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RED 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.

YELLOW BLADE DEPTH CONTROL LEVER (D)
Raises or lowers cutting blade.

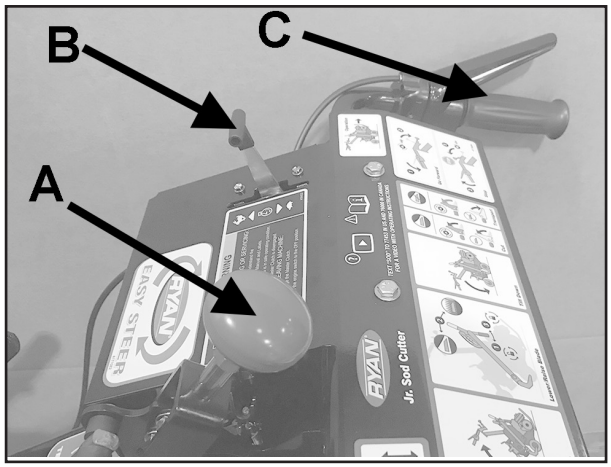
GREEN BLADE DEPTH CONTROL LOCKING LEVER (E)
Locking lever holds blade depth control in desired position.

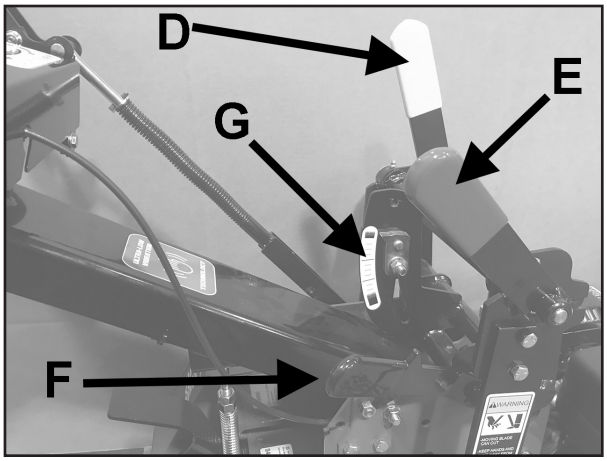
BLACK BLADE ANGLE LOCKING LEVER (F)
Locks blade angle.

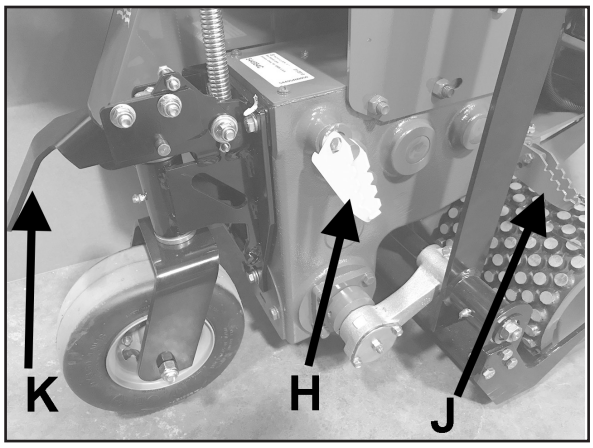
DEPTH STOP (G)
Allows resetting of blade depth to the previous cutting height.

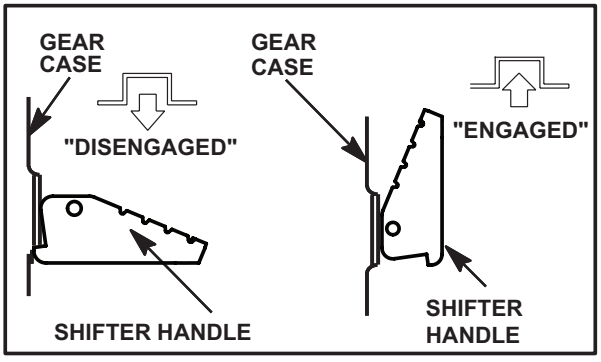
YELLOW BLADE AND RED WHEEL SHIFTER HANDLES (H & J)
Engage and disengage blade for cutting and gears for driving Sodcutter.

CASTER WHEEL LOCKING LEVER (K)
Allows for straight cutting when locked (down) and curved cutting when unlocked (up).









PRE-OPERATION CHECK LIST
(OPERATOR'S RESPONSIBILITY)

- Review and follow all safety rules and safety decal instructions.
- Check that all safety decals are installed and in good condition. Replace if damaged.
- Check to make sure all shields and guards are properly installed and in good condition.
- Check that all hardware is properly installed and secured.
- 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.
- Inspect area. Remove stones or other hard objects that might cause damage.
- Check that there are no underground utilities in work area.
- Check all lubrication points and grease as instructed in manual.
- 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.

BEFORE STARTING THE ENGINE

1. Be familiar with the controls, how each functions, and what each operates.
2.. Check engine oil level. Add oil if necessary, following the engine manufacturer's recommendations. Refer to engine manual supplied with machine.
3. Open the fuel valve.
4. Fill the fuel tank with the amount and type of fuel recommended by the engine manufacturer.
5. 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.

OPERATOR PRESENCE INTERLOCK SYSTEM

To start the engine:
- The red master clutch must be disengaged.

To operate the machine:
- The operator must hold down the operator presence lever or engaging the master clutch will kill the engine.

⚠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:

- Use a funnel to avoid spilling.
- Do it outdoors.
- Do not smoke.
- Stop the engine; allow to cool.
- Do not overfill.
- Clean up spilled fuel.

STARTING THE ENGINE

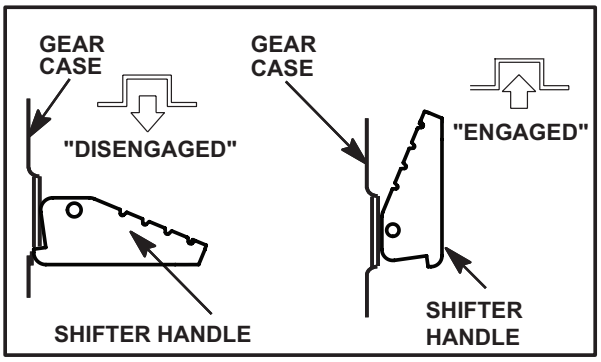
1. Move the engine switch to the "ON" position.
2. Pull the recoil starter to start the engine.
3. If the choke is ON when the engine starts, gradually back it off until the engine runs with no choke at all.

MOVING OF UNIT

To move unit without running blade:

1. Place yellow blade shifter handle in "disengaged" position (handle will point straight out from unit) See **Figure 1**.
2. Set engine speed to slow.
3. Engage red drive shifter handle.
4. Depress black operator presence control.
5. Engage red master clutch control lever.
6. Adjust throttle to desired walking speed.

To move unit **without running the engine**, put red drive shifter handle and red 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.

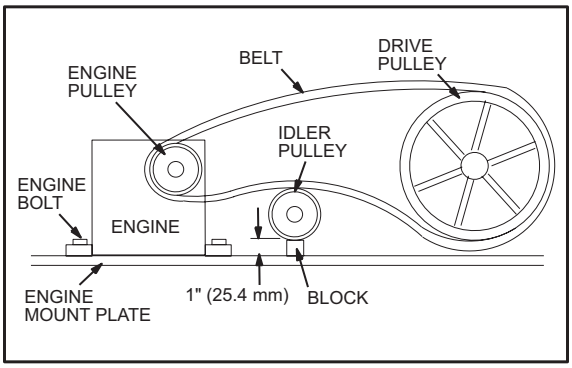
1. Move machine to the area where sod is to be cut. With the engine off and the red master clutch disengaged, stand on the right side of the machine. Loosen the green blade depth control locking lever with your right hand, then use the handle bar to tip the machine forward and hold it with your left hand. Lower the yellow blade depth control lever with your right hand until it hits the preset depth stop. Tighten the green locking lever.
2. Start the engine, then engage the wheel drive and the blade drive with the red wheel drive shifter lever and the yellow 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 red 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.
5. 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.

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.



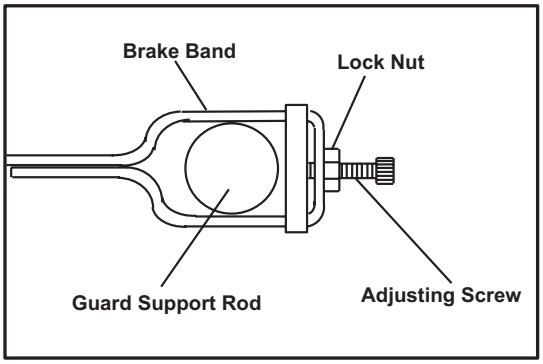
BRAKE BAND ADJUSTMENT

When adjusted properly:
- With the red master clutch control lever engaged, the brake band is not braking the large drive pulley.
- When the red master clutch control leveris disengaged, there will be some brakig occuring on the large drive pulley.
- When the red 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.

Start the machine, and check for proper operation. Readjust if necessary. IF the engine kills when engaging the red master clutch control lever, the brake may be set too tight.



ADJUSTING DEPTH OF CUT

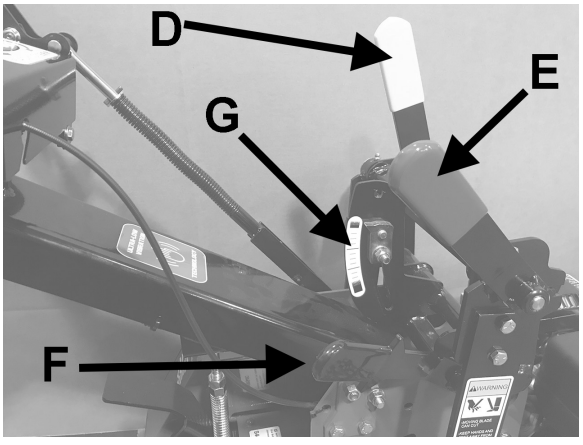
3/4" (20mm) is a good general starting depth of cut. Depth of cut can be varied from there depending on conditions and what you are trying to accomplish.

1. Make an initial depth setting. Park the machine on a hard surface. Loosen green depth control locking lever E and lower yellow depth control lever D until the blade rests on the surface.

2. Loosen the depth gauge lock and set top of depth gauge G to 3/4" (20mm) below the yellow depth control lever D. Tighten the depth gauge lock knob to secure the depth gauge setting.

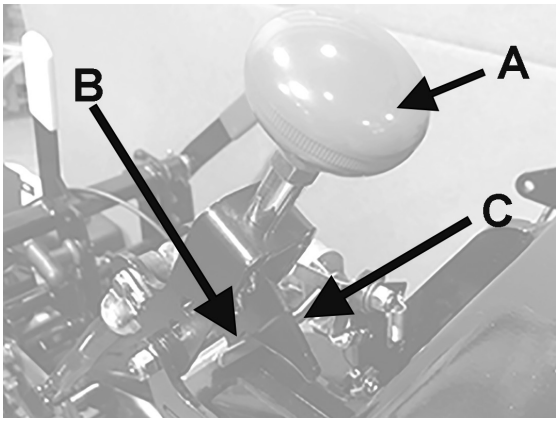
3. Use your left hand to tip the machine forward while lowering the yellow depth control lever D until the depth control crossbar hits the Depth Stop G. Tighten the green locking lever E to lock in the depth setting, make a trial run in turf. Check the depth of cut.

4. Re-adjust the depth gauge G and yellow depth control lever D if necessary.



ADJUSTING OPERATOR PRESENCE CONTROL

1. To adjust operator presence cable, pull red clutch control handle **A** rearward as far as possible.
2. Press operator presence handle (right handlebar) down as far as possible.
3. 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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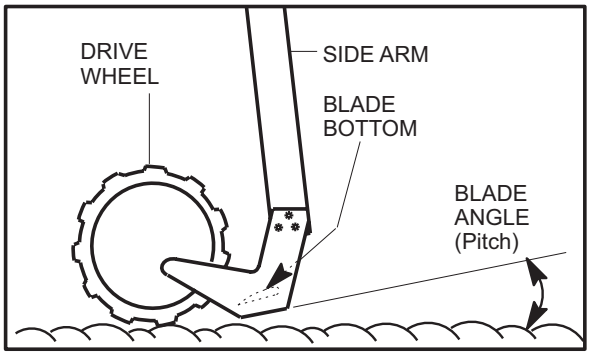
BLADE ANGLE (PITCH)

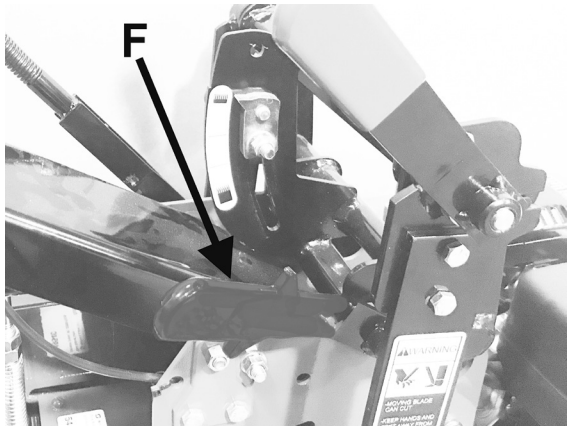
Under normal operating conditions, blade angle is minimal (blade bottom is flat). In extremely hard soil or when cutting with a dull blade, the blade may want to ride out of the ground. It may then help to adjust blade angle forward (see Adjusting Blade Angle below). A short trial run will indicate which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



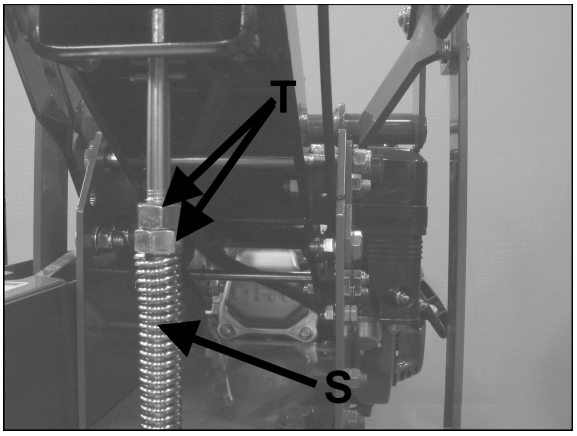
ADJUSTING BLADE ANGLE (PITCH)

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



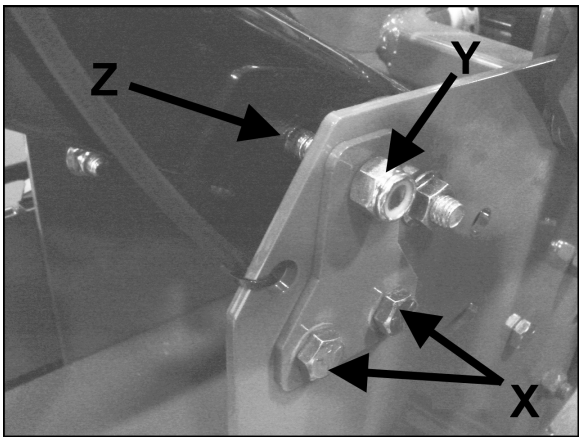
HANDLE SUPPORT SPRING

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**.



⚠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 red 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:

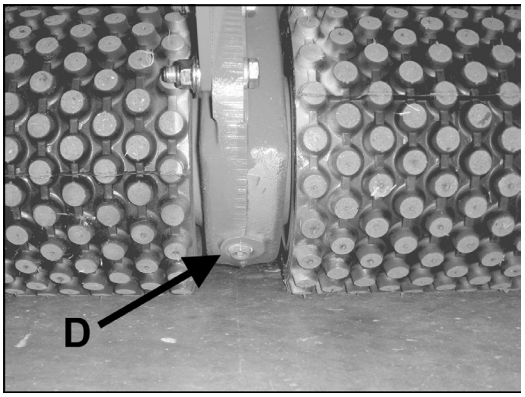
The gear case is initially filled with 3 1/2 pints (1.7 L) of EP 140 Gear Lube. Do not add to this amount unless oil is changed or lost through leakage. Gear case drain plug **D**.

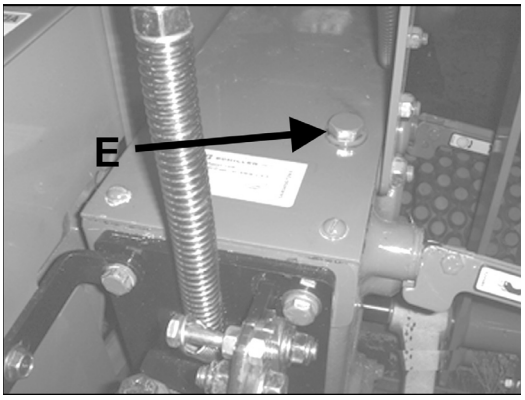
On all pressurized lubrication fittings use a good grade of Lithium Based lubricant.

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.

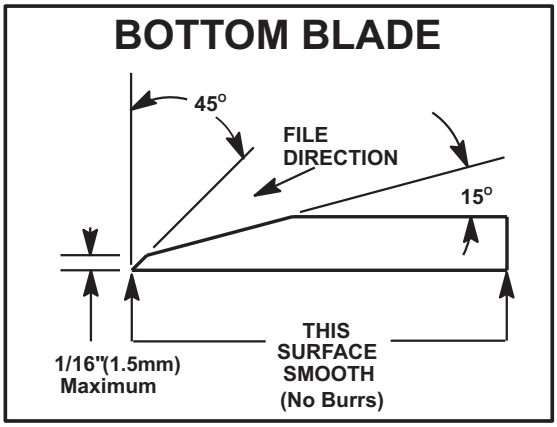
Check gear case lubricant level using dipstick **E** located on top of gear case. Check lube with dipstick sitting on threads, do not screw in.

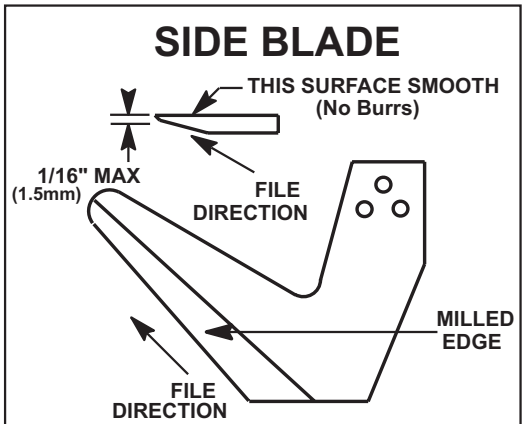




BLADE SHARPENING

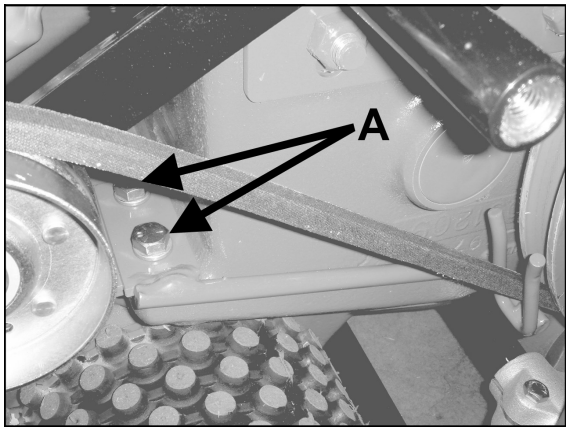
1. Hand file bottom blade at 45^{O} angle until no flat remains.
2. To keep cutting edge less than 1/16" (1.5mm) on 45^{O} angle, grind milled surface back at 15^{O} to less than 1/16"(1.5mm).
3. Hand file side blades at 45^{O} until no flat remains.
4. To keep cutting edge less than 1/16"(1.5mm) on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

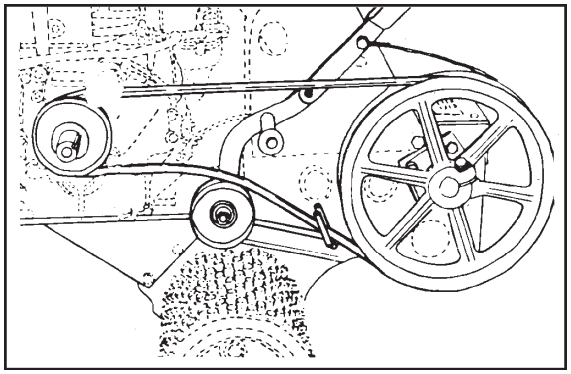




DRIVE BELT REPLACEMENT

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

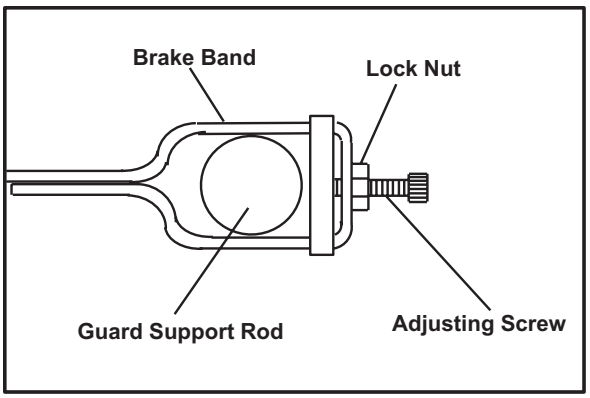
1. Raise unit, place on adequate supports and remove belt guard.
2. Remove four (4) screws securing gear case cover.
3. Remove throttle cable from engine and lay behind cam case.
4. Remove dipstick from cover.
5. Remove screw, flat washer, nut and bushing from right lower side of "H" frame.
6. Using 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.
9. 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.

DRIVE WHEEL CHAIN SPROCKET SHAFT

1. Follow steps 1 thru 7 in drive chain removal section.
2. Remove master link and remove chain from top sprocket.
3. Remove both drive wheels and axle keys.
4. Remove seal in case and snap ring retaining bearing in case.
5. Install axle nut on end of shaft, opposite the side of snap ring previously removed.
6. Using a soft hammer (lead, brass, etc.), drive shaft out of case. Sprocket can now be removed by lifting up on chain.
7. Top sprocket and chain should be checked for 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 red 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.



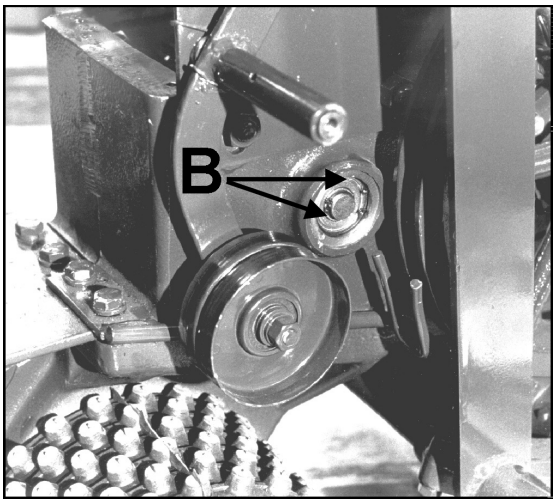
NOTE: Make sure that cotter pin does not interfere with drive belt.

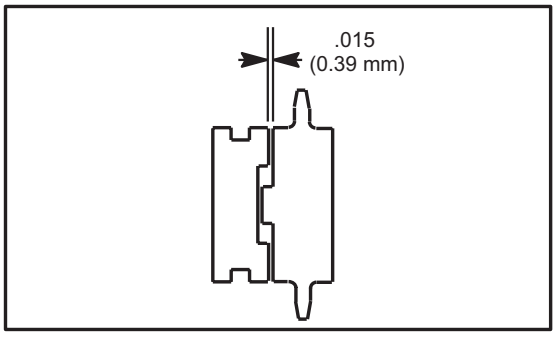
Routine brake band adjustment is necessary as the band and belt wear.

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.





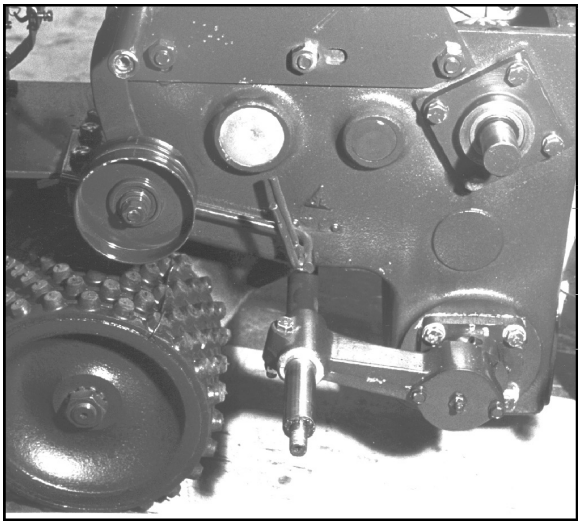
BLADE DRIVE CHAIN REPLACEMENT

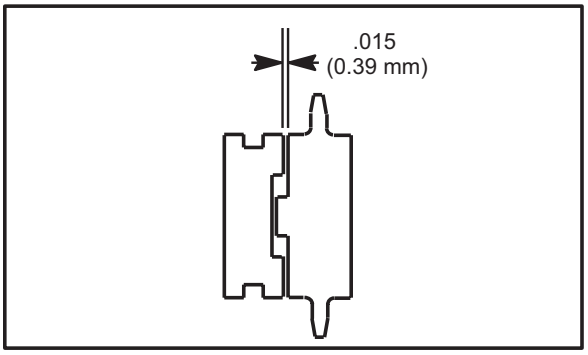
NOTE: To prevent small components from falling down into oil cavities and causing damage to unit, cover opening with clean rags, cardboard, etc.

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.



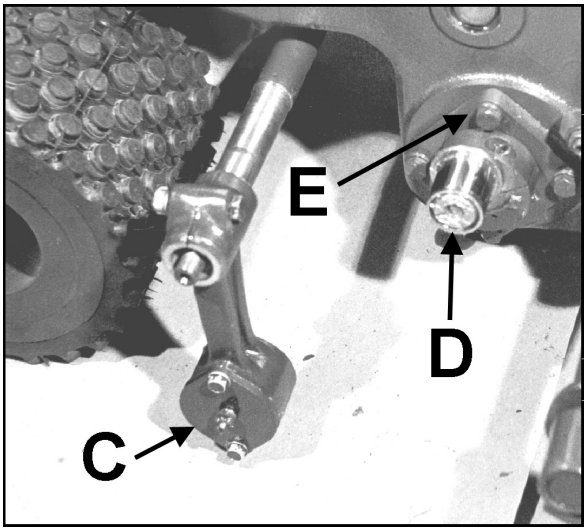


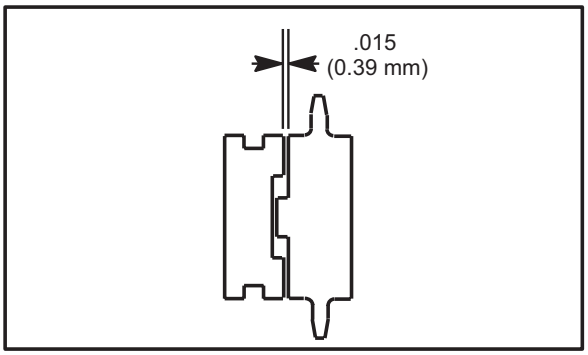
BLADE SPROCKET SHAFT

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.

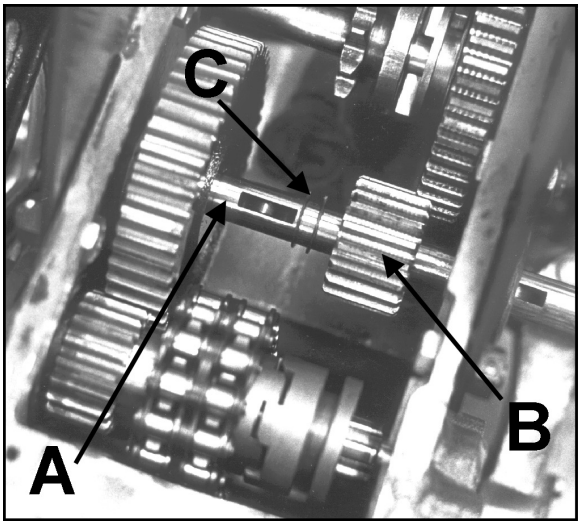
9. Apply 3M Scotch Grip 847 adhesive or equivalent to gear case cover before installation.





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.
4. 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.

POSSIBLE PROBLEM	PROBABLE CAUSE	REMEDY
Blade will not stay in ground.	A. Bottom of blade is rounded off. B. Blade angle is not properly set.	A. Sharpen or replace blade. See page 15. 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.
Belt jumps off.	A. Wrong type of belt construction. B. Too much slack when belt tightener is disengaged.	A. Use only the special Ryan factory belt. B. Slide engine forward and readjust control rod.
Locking levers not tight when pulled to limit of travel.	A. Thread wear on locking nut. B. Locking nut not properly adjusted.	A. Replace locking nut. B. Tighten locking nut on opposite end of tie rod.
Belt grabs in pulleys and unit creeps when red clutch is not engaged	A. Belt is old and frayed, or is not the type sent out with the unit. B. Rust or paint in pulley grooves. C. Engine set too far forward.	A.Replacewith factory construction belt, designed for belt tightener clutches. B. Clean and polish pulleys. C. Move engine back.
Idler does not engage belt when red 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.

NOTES

SPECIFICATIONS

Jr. Sodcutter

Models: 544951H.....Jr. Sodcutter - 12 in.(30.5cm)
544952H.....Jr. Sodcutter - 18 in.(45.7cm)

Engine

Model.....4 cycle 6.5H.P.(4.8KW) B&S Vanguard, Model 12H332, Type 0159, Trim B8, 12.5 cu. in. (205 cc)
Starter..... Recoil
Governor..... 3600 RPM + 100 RPM, no load
Clutch..... spring loaded belt tightener type

Reduction

Engine to blade..... 2.94:1
Engine to drive wheels..... 55.8:1

Models: 544953C.....Jr. Sodcutter - 12 in.(30.5cm)
544954C.....Jr. Sodcutter - 18 in.(45.7cm)

Engine

Model..... 4 cycle 5.5 H.P. Honda Model GX160-K1QX2, GX160 OHV 9.9 cu. in. (163 cc)
Starter..... Recoil
Governor..... 3600 RPM + 100 RPM, no load
Clutch..... spring loaded belt tightener type

Reduction

Engine to blade..... 2.94:1
Engine to drive wheels..... 55.8:1

Wheels:

Drive..... 8" (203 mm) Dia. w/knobby tread vulcanized to hub
Rear.....8 x 1.75 (203 X 45mm) semi-pneumatic tires with pre-packed ball bearings

Drive:

Engine to gear case..... "A" section belt
Gear case to drive shaft and blade drive.....roller chain

Gear case:

Lubrication..... EP140 Gear lube
Capacity..... 3 1/2 Pints (1.7L)

Cutting width:

544951H & 544953C.....11 3/4" (298 mm)
544952H & 544954C.....18" (457 mm)

Blade pitch:

Hand lever adjustment..... variable 0^{O} to 9^{O}

Blade speed: .....
1225 oscillations/min @ 3600 engine RPM

Dimensions:

Width..... 24" (600 mm)
Length..... 49" (1244 mm)
Height..... 33" (838 mm)
Wheelbase..... 19" (483 mm)

Weight:

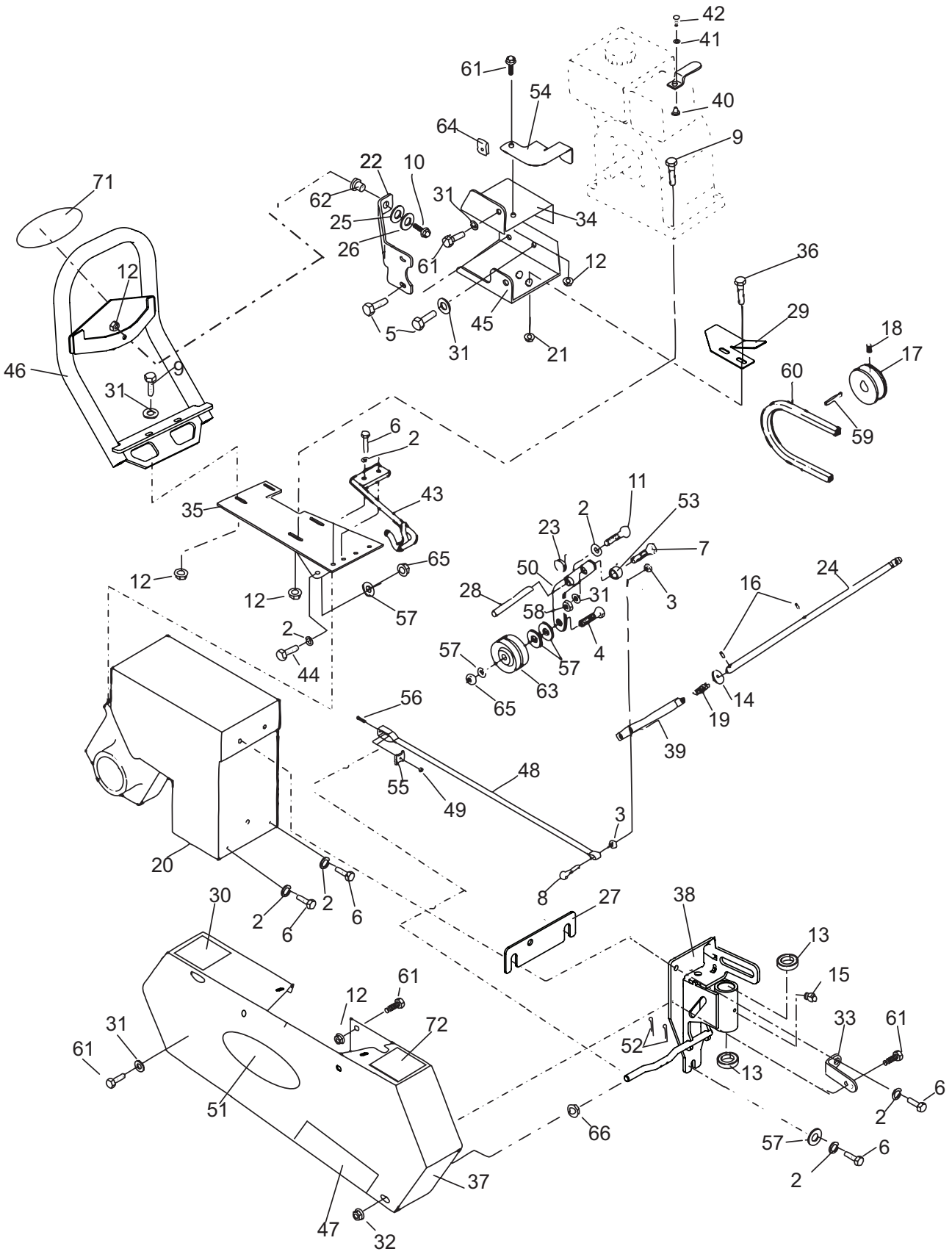
544951H & 544953C..... 333 lbs. (151 Kg)
544952H & 544954C..... 377 lbs. (171 Kg)

TOUCH -UP PAINT:

16OZ. (0.5L) Spray can, order P/N 65334

PARTS SECTION

FIGURE 1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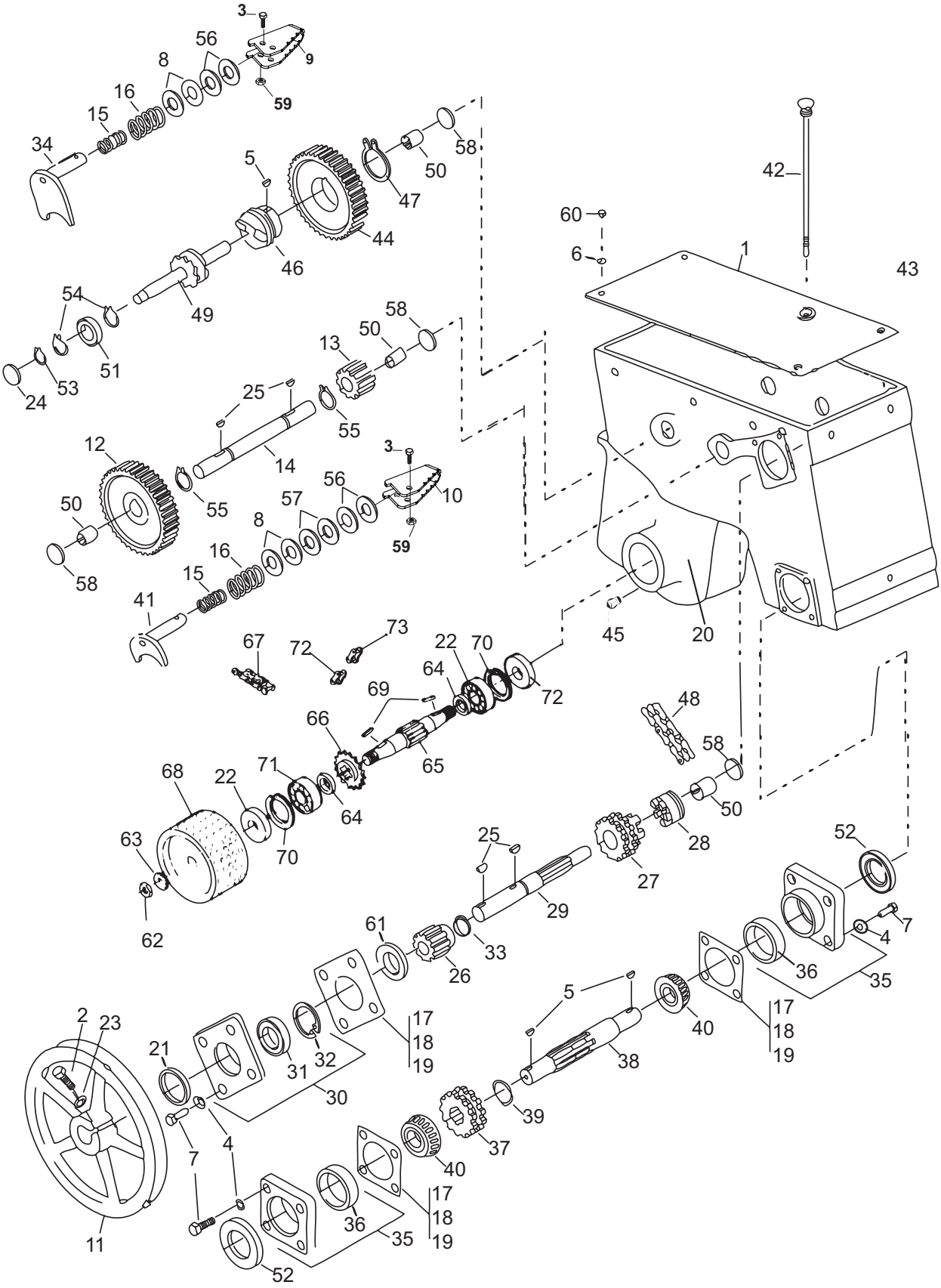
JR SOD CUTTER

FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY
1	64163-55	WASHER .328X.75X14 GA	5
2	64006-03	LOCKWSHR-HELICAL 3/8	15
3	64001-13	NUT-HEX JAM 1/4-20	2
4	64123-67	BLT-HEX 3/8-16X2	1
5	64139-01	BLT-WLF 5/16-24X3/4	4
6	64123-50	BOLT-HEX 3/8-16X1	14
7	64123-68	BOLT-HEX 5/16-18X1	5
8	64123-269	BLT-HEX 1/4-20X1-1/8	1
9	64139-23	BLT-WLF 5/16-18 X 1-3/4	4
10	64139-10	BLT-WLF 5/16-18X1-1/4	1
11	64123-15	BOLT-3/8-16X3/4 HEX	1
12	64141-6	NUT, 5/16-18	4
13	4129801	BEARING-FLANGE	2
14	64163-67	WASHER-.516X1X12GA	2
15	85010N	ZERK-GREASE	1
16	64176-11	PIN-COILED SPRING 3/16X1	2
17	517137	PULLEY,4" DIA "A" SIZE	1
18	64044-18	SCREW-SET 5/16-18 x 5/16	2
19	518535	SPRING	1
20	4175979	ASSY-GEARCASE 12"	1
	4175980	ASSY-GEARCASE 18"	
21	64141-2	NUT-WLF 1/4-20	2
22	524773.2	BRACE-GUARD	1
23	520785	SPRING	1
24	4164474	ROD-CONTROL	1
25	838496	WASHER,.25 1.00.125 FLAT	1
26	64163-29	WASHER-21/64 X 1 X 11GA	1
27	4164506.7	SPACER-CASTER ASM	1
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	4163353	S-GUARD ASSY	1
38	4175997	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	4175972.7	GUARD AY, FRONT	1
47	4133034	LABEL-JR SOD CUTTER	1
48	524573	BAND, BRAKE	1
49	64025-14	NUT-HEX #10-32	1
50	4164571.7	WLDMT-IDLER ARM	1
51	4163976	LABEL-RYAN	1
52	64168-2	HAIRPIN	2
53	819337	BUSHING	1
54	524610.7	BRACKET,BELT GUIDE	1
55	524574	NUT, BRAKE BAND	1
56	64044-22	SCREW-SET #10-32X1	1
	(ITEMS 55, 56, 49 & 48 ARE AVAILABLE IN BRAKE BAND KIT 540274)		
57	64163-31	WSHR 25/64X1X12	6
58	64141-9	NUT-WLF 5/16-18 EL	1
59	64164-11	KEY-3/16X3/16X1-1/4 SQ END	1
60	524582	BELT,V A SECT. 66" LONG	1
61	64139-06	BLT-WLH 5/16-18X5/8	6
62	2702464	BUSHING,ISOLATION	1
63	548942	PULLEY, PLAIN IDLER 3.25"	1
64	800889	NUT,.31-18 SPD J W/NUT	2
65	64268-03	NUT-FL NYLON LOCK 3/8-16	3
66*	524775	FILTER,AIR CLEANER	1
67*	524776	FILTER,AIR PRE-CLEANER	1
68*	540385	KIT,SPARK ARRESTOR	1
	(ITEMS 66-68 USED ON BRIGGS & STRATTON ENGINES ONLY)		
69*	524777	FILTER,AIR W/PRE-CLNR	1
70*	540374	SPARK ARESTOR W/SCRW	1
(ITEMS 69 & 70 USED ON HONDA ENGINES ONLY)			
71	4175971	LABEL-RYAN	1
72	340830	LABEL-CAUTION SPANISH	1

*** NOT ILLUSTRATED**

FIGURE 2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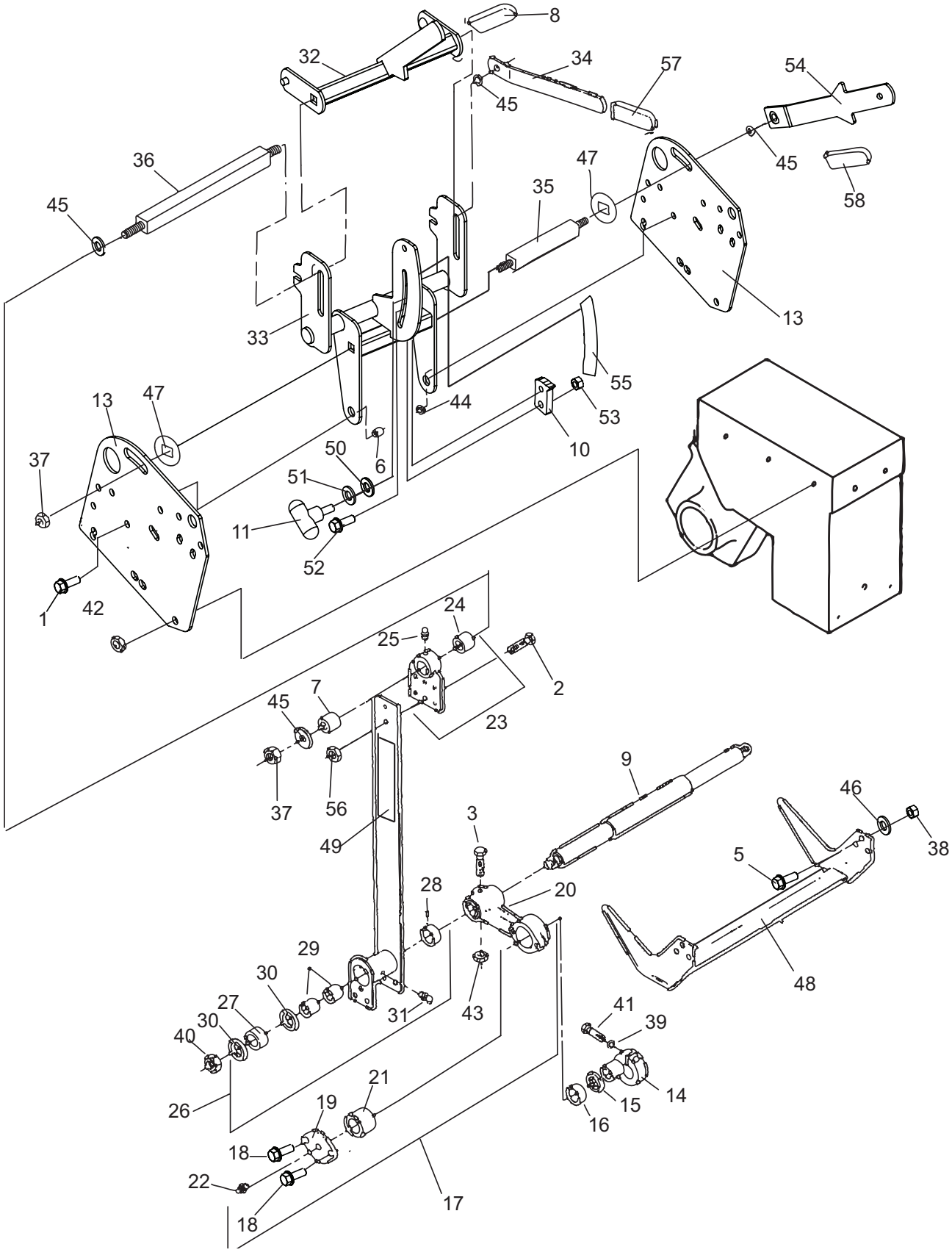
JR SOD CUTTER

FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY
1	4175979	ASSY-GEARCASE 12"	1
	4175980	ASSY-GEARCASE 18"	
	(INCLUDES ITEMS 1-74)		
2	64123-67	BLT-HEX 3/8-16X2	1
3	64123-80	BLT-HEX 1/4-20X1-1/4	2
4	64006-02	LCKWSHER-HELICAL 5/16	12
5	64164-19	KEY WOODRUFF.19X.75 #9	3
6	64006-01	LOCKWASHER-1/4 HELICAL	4
7	64123-68	BOLT-HEX 5/16-18X1	12
8	515891	SHIM,.64 1.25.010 YS	4
9	4175981	HANDLE-SHIFTER,DRIVE	1
10	4175982	HANDLE-SHIFTER, CUT	1
11	515901.7	PULLEY	1
12	516145	GEAR	1
13	516150	GEAR	1
14	516156	SHAFT	1
15	516194	SPRING	2
16	516196	SPRING	2
17	520238	SHIM .005 (.13MM)	A/R
18	520239	SHIM .010 (.25MM)	A/R
19	520240	SHIM .020 (.51MM)	A/R
20	520671.7	GEARCASE	1
21	521941	SPACER,1.00 1.12.66	1
22	548954	SEAL-OIL 1.38 SHAFT	2
23	64006-03	WSHR, 3/8 HELICAL LOCK	1
24	548931	PLUG,EXPANSION 1.75 YS	1
25	64164-28	KEY-#808 WOODRUFF	4
26	4139758	GEAR	1
27	516162	SPROCKET, CLUTCH	1
28	516172	CLUTCH	1
29	516173	SHAFT	1
30	544215	CAGE ASSY,BEARING	1
	(INCLUDES ITEMS 31, 32)		
31	548131	BRG,BALL 1.00 2.00.50 "DA"	1
32	548326	RING,INT RET 2.21OD.06	1
33	548327	RING-LOCK	1
34	544217.7	SHIFTER AY	1
35	545050	CAGE AY,BEARING	1
	(INCLUDES ITEM 36)		
36	814474	CUP,TPRD RLR BRG	1
37	516160	SPROCKET	1
38	521253	SHAFT-ECCENTRIC	1
39	548336	LOCK RING (KC)	1
40	814473	CONE,TPRD RLR BRG 1.00	2
41	545710	SHAFT AY	1
42	546033.7	DIPSTICK AY	1
43	546037.7	COVER AY, GEAR CASE	1
44	519404	GEAR,DRIVE	1
	(INCLUDES ITEMS 45-47)		
45	548775	PLUG.25-18NPTF HS	1
46	516222	HUB	1
47	548329	RING,EXT LOCK 1.61ID.06T	1
48	546937	CHAIN, #50 DOUBLE	1
49	547427	SPROCKET & SHAFT AY	1
50	548080	BRG.NDL.75 1.00.75	4
51	548096	BRG,BALL.59 1.38.43 "SS"	1
52	548272	SEAL,OIL 1.00 SHAFT	2
53	548321	RING,EXT RET.56ID.037	1
54	548323	RING, INTRNL RETAINING	2
55	548324	RING,EXT RET.691ID	2
56	548477	WASHER	4
57	548478	WSHR,.641 1.188.04 YS FLT	5
58	548482	PLUG,EXPANSION 1.25 YS	4
59	548597	LOCKNUT, UNI-TORQUE	2
60	548726	SCRW,.25-20.75 YS RS	4
61	4139759	SPACER-GEAR	1
62	307665	NUT .75-16 YS HX JAM	2
63	309799	LWSHR .75 ZS SHKPRF	2
64	520722	SPACER	2
65	520723	SHAFT	2
66	545626	SPROCKET AY	1
67	547398	CHAIN AY #50 RLR	1
68	547408.7	WHEEL AY 12IN	2
	(USED ON 544951H & 544953C ONLY)		
	547424.7	WHEEL AY 18IN	
	(USED ON 544952H & 544954C ONLY)		
69	64164-10	KEY 1/4X1-1/4 SQ	2
70	548952	RING INTERNAL RETAINING	2
71	548953	BRG-BALL 1.38 2.83.67	2
72	4117675	LINK-#50 CONNECTOR	A/R
73	548480	LINK-HALF	A/R

FIGURE 3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JR SOD CUTTER

FIGURE 3

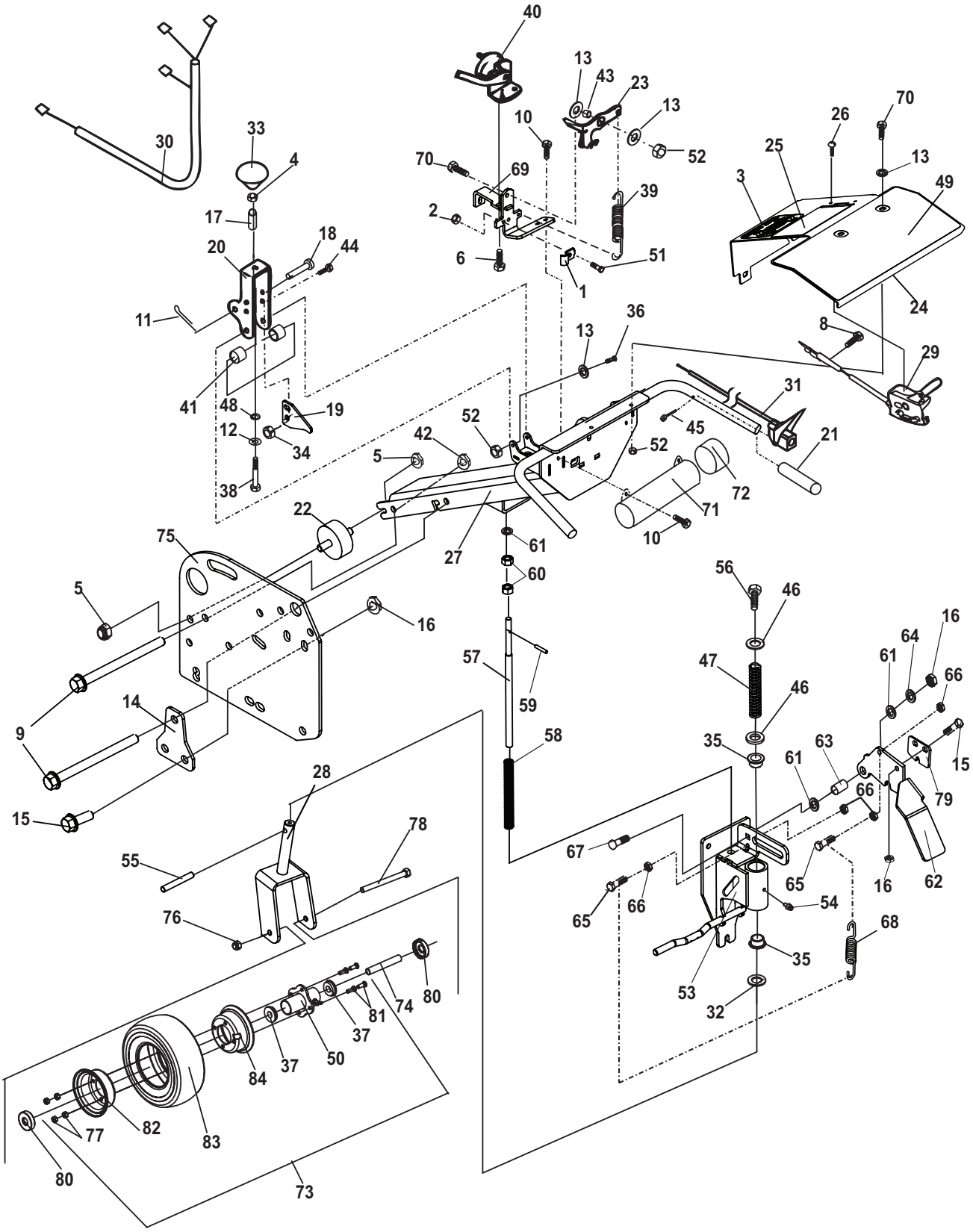
ITEM	PART NO.	DESCRIPTION	QTY
1	64123-50	BOLT-HEX 3/8-16X1	2
2	64123-107	BOLT-HEX 5/16-18X7/8	4
3	64123-61	BLT-HEX 5/16-18X1-3/4	2
4	328018	SCRW,.44-14 1.12 YS HX	6
5	515011	SCRW,.31-24 1.00 ZS HX	6
6	515729	BUSHING	2
7	516067	BUSH,STL.515X.874X1.015	2
8	4135868-02	COVER,HANDLE YELLOW	1
9	521435.7	SHAFT, LOWER	1
10	4164446	PLATE-ADJUSTMENT STOP	1
11	4114727	KNOB-SPEED CONTROL	1
12	4175983	LABEL-CUT DEPTH, JR SOD	1
13	4164384.2	BRACKET, PIVOT	2
14	4164681	S-ECCENTRIC ASSY	2
	(INCLUDES ITEMS 15 & 16)		
15	521424	RING	1
16	548814	RACE, INNER	1
17	545437	ARM AY	2
	(INCLUDES ITEMS 18-22)		
18	64197-025	BLT-TDFM 1/4-20X5/8	2
19	521425	PLATE - COVER	1
20	521427	ARM, PITMAN	1
21	521428	BRG,NDL 1.25 1.62 1.06	1
22	85010-03	FITTING (KC)	2
23	545443.7	BRACKET AY	2
	(INCLUDES ITEMS 24, 25		
24	521429	BRONZE BEARING	1
25	85010N	ZERK-GREASE	1
26	4176189	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	85010N	ZERK-1/4 28 STR. SFTH	4
32	4164541.7	WLDMT-LEVER	1
33	4176171	S-H-FRAME W/DECAL	1
	(INCLUDES ITEM 55)		

ITEM	PART NO.	DESCRIPTION	QTY
34	545449.7	HANDLE AY	1
35	524549	ROD,TIE LOWER	1
36	524550	ROD,TIE UPPER	1
37	64268-05	NUT FL NYLCK 1/2-13	2
38	64025-03	NUT-HEX 5/16-24	6
39	64006-16	LOCKWSHR-5/16 HI-COLLAR	2
40	64151-33	NUT-HEX 1/2-20 TOP LCK JAM	2
41	800513	SCRW-SCKT 5/16-18-1-1/4	2
42	548056	NUT,.44-14 YS HX UNITORQ	6
43	64268-02	NUT-FL NYLN LCK 5/16-18	2
44	64268-03	NUT-FL NYLN LCK 3/8-16	5
45	64163-99	WSHR-.510X1.31X.179	5
46	64006-02	LOCKWSHR-HELICAL 5/16	6
47	4113281	WASHER, SPCL .531 SQ	2
48	4132717.7	BLADE-SOD CUTTER, 18"	1
	546182.7	BLADE-SOD CUTTER 12"	
49	4164033	LABEL-CHF VERT	2
50	2308066	WASHER-FIBER	1
51	64163-31	WSHR-15-64X1X12GA	1
52	64018-7	BLT-CRG 3/8-16X1/1/4	1
53	64268-03	NUT-FL NYLON 3/8-16	1
54	4164570.7	WLDMT-HANDLE	1
55	4175983	LABEL-CUT DEPTH	1
56	64141-6	NUT-WLF 5/16-18	4
57	4135868-01	COVER,HANDLE GREEN	1
58	4135868	COVER,HANDLE BLACK	1

HANDLEBAR ASSEMBLY

JR SOD CUTTER

FIGURE 4



JR SOD CUTTER

FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY
1	111898	CLAMP,CABLE	1
2	64025-15	NUT-HEX #10-24 KEPS	1
3	4171082	LABEL-RYAN EASY-STEER	1
4	64025-04	NUT-HEX 3/8-24	1
5	64141-4	NUT-WLF 3/8-16	8
6	64197-015	BLT-TDFM 10-32X1/2 TORX	2
7*	4175985	LABEL-VIBRATION	1
8	64197-023	BLT-TDFM 10-32 X 3/4	1
(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	WSHR-.256IDX62ODX18GA.	8
14	4164473.2	PLATE-BOLT CENTERING	2
15	64123-50	BLT-HEX 3/8-16X1	6
16	64268-03	NUT-FL NYLON LOCK 3/8-16	7
17	516544	BUSHING (PLATING)	1
18	64188-64	PIN-CLEVIS 3/8 X 1.75	1
19	4164519.7	FLAT-SWITCH ACTIVATION	1
20	522585.7	HANDLE,CONTROL	1
21	522727	GRIP,HANDLE	2
22	C100546	ISOLATOR-3/4X2 W/2 STUDS	4
23	524472	ARM, PIVOT (PLATING)	1
24	4176191	S-CONTROL PANEL	1
	(INCLUDES ITEMS 3, 25, 49)		
25	4175984	LABEL-CONTROL PANEL	1
26	64152-18	SCR 8-32 X 3/8 S-TAP	2
27	4164418.7	WLDMT-HANDLE, JRSOD	1
28	4164579.7	WLDMT-YOKE	1
29	540326	CONTROL ASSY,THROTTLE	1
	(USED ON HONDA MODELS ONLY)		
	4163186-01	CONTROL, THROTTLE 38.5	1
	(USED ON B & S MODELS ONLY)		
30	540229	WIRE AY	1
	(USED ON HONDA MODELS ONLY)		
	4163183	HARNESS-JR SOD B&S	1
	(USED ON B & S MODELS ONLY)		
31	540232	CONTROL AY, KILL SWITCH	1
32	64163-07	WSHR 1-1/32X1-3/4X1/4	1
33	4175986	KNOB	1
34	64141-6	NUT, 5/16-18	2
35	4129801	BSHNG-FLNGD SINTRD IRN	2
36	64189-20	BLT-HEX SOC 1/4-20X5/8	2
37	2722682	BEARING-9IN WHEEL	2
38	64123-270	BLT-HEX 3/8-24X2-1/4	1
39	805421	SPRING,EXTENSION	1
40	806800	SWITCH,STOP LIGHT	1
41	524577	BUSHING, .328X.63X.41	2
42	64151-18	NUT-CENTER LOCK 3/8-16	2
43	814585	BUSHING	1
44	64139-06	BOLT-WLH 5/16-18X5/8	2
45	800896	SCRW-SET 1/4-20X3/8	1
46	64163-84	WSHR-1.015 X 1.75 X.125	2
47	4164551	SPRING-COMP,1.06X1.28X1	1
48	64163-61	WSHR .81X.406X16GA	1
49	4175984	LABEL-INSTRUCTION, JRS	1
50	2722680	HUB-9" WHEEL W/BRGS	1
51	64152-46	SCREW-SLT HH 10-24X1/2	1
52	64229-01	NUT-NYLON 1/4-20	7
53	4175997	S-WLDMT,REAR WHL ASSY	1
	(INCLUDES ITEMS 35 & 54)		
54	85010N	ZERK-1/4-28 SEKF THRD	1
55	4164454	ROD-CASTER LIMITER	1
56	64123-15	BLT-HEX 3/8-16X3/4	1
57	4164456	HANDLE-ROD SUPPORT	1
58	4164606	SPRING-COMP, .75x11.75	1
59	64176-11	ROLL PIN-3/16 X 1	1
60	64025-19	NUT-HEX 1/2-13	2
61	64163-67	WSHR-.516X1X12GA	3
62	4164779.7	BRKT-LOCKING, STRAIGHT	1
63	518438	BUSHING-STL .39X.5X.359	1
64	64163-31	WSHR-25/64X1X1/2	1
65	64123-07	BLT-HEX 1/4-20X1-1/2	2
66	64025-01	NUT-HEX 1/4-20	4
67	64018-7	BLT-CRG 3/8-16X1-1/4	1
68	4164627	SPRING-EXTENSION	1
69	4164475.7	BRKT-MOUNTING	1
70	64123-89	BLT-HEX 1/4-20X3/4	5
71	4129802	TUBE-DOCUMENT	1
72	38061A	CAP-VINYL	1
73	2722681	ASY-9"WHEEL	1
	(INCLUDES ITEMS 37,50, 77, 81-84)		
74	2722230-04	SPANNER	1
75	4164384.2	BRACKET, PIVOT	2
76	64229-05	LOCKNUT-NYLON 1/2-13	1
77	64141-1	NUT-WLF 5/16-24	4
78	64123-166	BLT-HEX 1/2-13 X 5-1/2	1
79	4164780.7	BRACKET-ADJUSTER	1
80	2722591	SPACER-3/4 BEARING	2
81	64123-01	BLT-HEX 5/16-24X3/4	4
82	2720645	S-WHL HALF, VALVE SD	1
83	38504	S-TIRE 9X3.5-4 SMOOTH	1
	*38505	S-TUBE-9x3.50-4	1
84	2720644	S-WHEEL HALF	1

***NOT ILLUSTRATED**

FIGURE 5

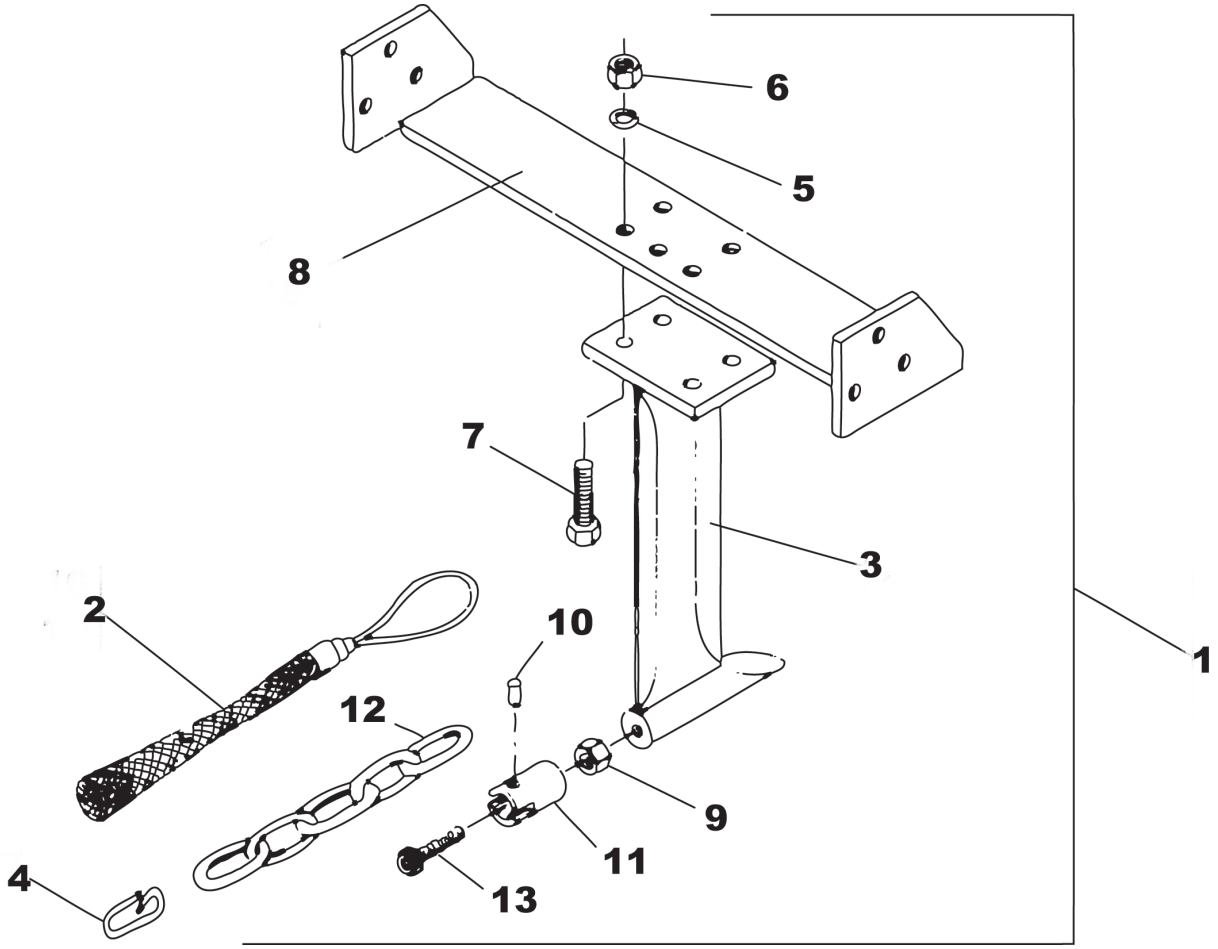


FIGURE 5

ITEM	PART NO.	DESCRIPTION	QTY
1	544670	MOLE BLADE KIT- 3/4"	1
	544673	MOLE BLADE KIT - 1-1/4"	
2	548613	KELLEM GRIP 3/4"	1
	(USED ON 544670)		
	548616	KELLEM GRIP 1-1/4"	
	(USED ON 544673)		
3	544692	BLADE AY, MOLE 1-1/4"	1
	(INCLUDES ITEMS 9-13)		
	544689	BLADE AY, MOLE 3/4"	1
	(INCLUDES ITEMS 9-13)		
4	808222	LINK,CHAIN CONN	1
5	64006-03	WSHR, 3/8 HELICAL LOCK	4
6	64025-04	NUT-3/8-24 HEX	4
7	64123-21	BLT-HEX 3/8-24X1-1/4	4
8	546089.7	BRACKET,MOLE BLADE	1
9	64025-02	NUT-HEX 5/16-18	1
10	316943	PIN,SPIROL.250.750 PS	1
11	515691	SWIVEL	1
12	547052	CHAIN AY	1
13	800513	SCREW-SCKT 5/16-18-1-1/4	1

ITEM	PART NO.	DESCRIPTION	QTY

FIGURE 6

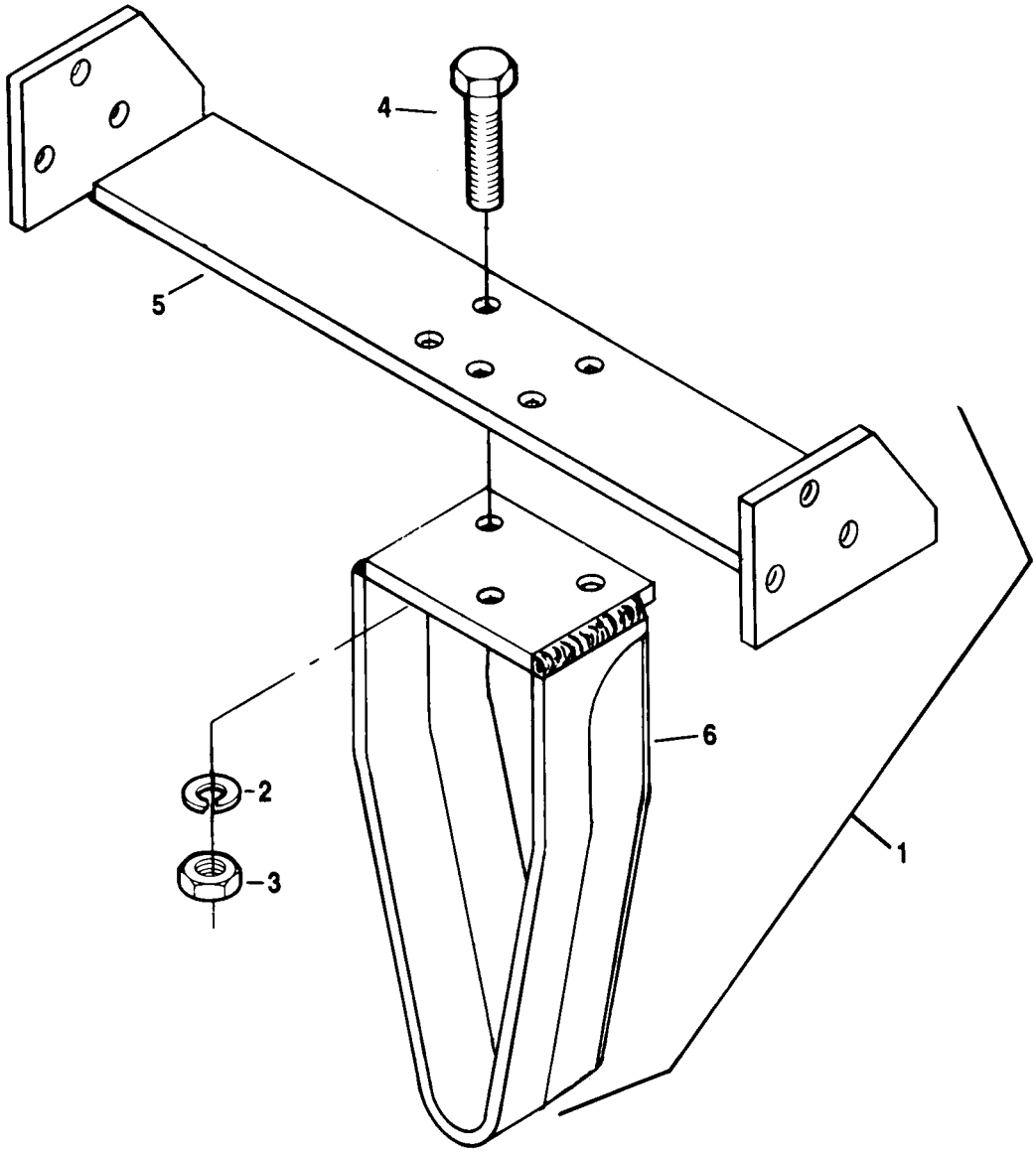


FIGURE 6

ITEM	PART NO.	DESCRIPTION	QTY
1	546199	BLADE KIT (INCLUDES ITEMS 2-6)	1
2	64006-03	WSHR, 3/8 HELICAL LOCK	3
3	64025-04	NUT-3/8-24 HEX	3
4	64123-21	BLT-HEX 3/8-24X1-1/4	3
5	546089.7	BRACKET,12"-MOLE BLADE	1
6	546198	BLADE AY,TRENCHING	1

ITEM	PART NO.	DESCRIPTION	QTY

SCHILLER GROUNDS CARE, INC.
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920-699-2000
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