

MAN 4178226
Rev. A 10-2019



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HYDRO JR SODCUTTER GX160 HONDA 18"
(S/N 0000 and above)

544963

HYDRO JR SODCUTTER 6.5HP B&S VANGUARD 18"
(S/N 0000 and above)



SCHILLER

**GROUNDS
CARE**

OPERATIONS / PARTS MANUAL

CALIFORNIA PROPOSITION 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.



ADVERTENCIA: Cáncer y Daño Reproductivo - www.65Warnings.ca.gov.

WARNING

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

ADVERTENCIA

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

IMPORTANT!

It is a violation of California Public Resource Code Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered or grass-covered land unless the engine is equipped with a spark arrestor, as defined in Section 4442, maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire.

To acquire a spark arrestor for your unit, see your Engine Service Dealer.

Please refer to the engine manufacturer's information included with the machine.

Labeled power ratings are supplied by the engine manufacturer in accordance with SAE testing and gross/net power rating standards (J1940, J1995, J1349).

HYDRO JR SOD CUTTER

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

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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

Model
XXXXXXX

Serial Number
XXXXXXXXXXXX

Schiller Grounds Care, Inc.
One Bobcat Lane
Johnson Creek, WI 53038



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

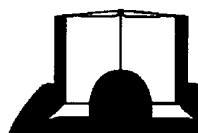
CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage.

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

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

This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

¡LEA EL INSTRUCTIVO!



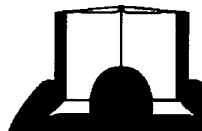
Si no lee Ingles, pida ayuda a alguien que si lo lea para que la traduzca las medidas de seguridad.

HYDRO JR SOD CUTTER

PREPARING FOR SAFE OPERATION

Operator preparation and training

- If an operator or mechanic cannot read, it is the owner's responsibility to explain this material to them. If any portion of this material is unclear, contact your dealer 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.



CAUTION

This machine produced sound levels in excess of 85dBA at the operator's ear. Extended periods of exposure can cause hearing loss.

- Wear hearing protection.
- Never allow children, unskilled or improperly trained people to operate this equipment. Local regulations can restrict the age of the operator.
- Only adults and mature teenagers should operate a sod cutter. Mature teenagers should have adult supervision. Be sure a teenager:
 1. Has read and understands the operator manual and understands the risks involved.
 2. Is sufficiently mature to use caution.
 3. Is of sufficient size and weight to operate the controls comfortably and to manage the machine without taking risks.

- 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, alcohol or any other condition of impairment.
- 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 entangled 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.
- Operate only in daylight or in good artificial light.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, seek shelter. Do not operate the machine.

MACHINE PREPARATION

- 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.

FUELING

WARNING



- Gasoline is extremely flammable; gasoline vapors are explosive. Use extra care when handling. A fire or explosion from gasoline can burn you or others and/or cause property damage.
- When fueling, refueling or checking fuel level:
 - Do it before starting the engine. Do not remove the fuel tank cap or add fuel while the engine is running.
 - If the engine has been running, stop the engine and allow to cool for several minutes;
 - Do not smoke, stay away from open flames or other possible ignition sources;
 - Refuel outdoors, do not refuel in an enclosed trailer or building;
 - Use a funnel;
 - Do not overfill;. Fill to the bottom of the filler neck. the empty space allows for expansion. Overfilling may result in fuel leakage or damage to the engine or emissions system;
 - If fuel is spilled, do not attempt to start the engine until the spill is cleaned up and vapors have cleared.
 - Replace caps on fuel containers and tanks securely.
 - Do not operate without the entire exhaust system in place and in good working condition.

WARNING



Gasoline is harmful or fatal if swallowed. Long-term exposure to vapors has caused cancer in laboratory animals.

- Avoid prolonged breathing of vapors.
- Keep face away from nozzle and gas tank/container opening.
- Keep away from eyes and skin.
- Do not siphon by mouth.

WARNING



Under certain conditions, static electricity can cause sparks during fueling and start fires or cause explosions. Flowing fuel can generate static electricity. To prevent static electricity sparks:

- Keep fuel 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.
- If a dispenser nozzle must be used, 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.
- Fill the fuel tank outdoors.
- Store fuel only in containers specifically designed for fuel.

HYDRO JR SOD CUTTER

OPERATING SAFELY

WARNING

Operating engine parts, especially the muffler, become extremely hot. Severe burn can result from contact. Debris such as grass clippings, leaves, brush, etc. can catch fire.

- Allow engine parts, especially the muffler, to cool before touching.
- Remove accumulated debris from engine and muffler area.

WARNING

Engine exhaust contains carbon monoxide, which is an odorless gas that can kill you.

DO NOT run the engine indoors or in a confined small area (such as an enclosed trailer) where carbon monoxide fumes can collect.

STARTING

- Start only according to instructions in this manual or on the machine.
- Never leave a machine unattended. Always turn off the blades and stop the engine before leaving the operator position.
- When starting the engine, make sure hands and feet are clear of the blade.
- Do not change engine governor settings or over speed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.

STOPPING

- Park the machine on level ground. Stop the engine and wait for all parts to stop moving:
 - Before checking, cleaning or working on the machine.
 - After striking a foreign object or an abnormal vibration occurs. Inspect and make any necessary repairs before restarting and operating the machine.
- Park the machine on level ground. Stop the engine and wait for all parts to stop moving.
 - Whenever you leave the machine.
 - Before refueling.
 - Before making depth adjustments.
- After engine shut down turn the fuel off if the engine is provided with a fuel shutoff valve.

OPERATION

- This machine was designed for use by one operator. Keep all others away during operation.
- Do not operate when people, especially children, or pets are in the area.
- Slow down and use caution when making turns and crossing roads and sidewalks.
- Stop blades when not cutting.
- Stop blades when crossing surfaces other than grass.
- Use extreme caution when reversing or pulling the machine towards you. Be sure the area behind is clear.
- Do not attempt to make cutting depth adjustments while the engine is running.
- Do not start the cutting blade until you are ready to start cutting.
- Walk, never run.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Obey safety instructions. Failure to do so may cause injury to yourself and/or others.
- Never leave a running machine unattended. Park on level ground, turn off blades, stop engine and remove key before leaving the operator position.

OPERATING ON SLOPES

WARNING

Operating on wet grass or steep slopes can cause sliding and loss of control. Wheels dropping over edges, ditches, steep banks, or into water can cause roll overs, which may result in serious injury, death or drowning. Slopes are a major factor related to accidents. Operation on slopes requires extra caution.

- Be sure of your footing on slopes.
- With walk-behind machines, always operate across slopes, **not** up and down. With ride-on machines, operate up and down slopes, **not** across, except zero turn machines.
- Be alert to dips and rises which change the general slope. Watch for holes, rocks and roots in the terrain and other hidden hazards. Keep away from drop-offs. Avoid ground conditions which will cause the machine to slide. Tall grass can hide hazards.
- Use extreme caution near water. Banks can give way without warning.
- Use lower speeds and exercise extreme caution on slopes and especially in sharp turns to prevent tipping and loss of control. Use extra caution when changing direction on slopes.
- Progressively greater care is needed as the slope increases.
- Do not cut sod on excessively steep slopes.
- Do not cut sod on slopes when the grass is wet.
- If the operator is uncomfortable or unsure of the machine's stability, cease operation on these slopes immediately.
- The ultimate responsibility for safe operation on slopes rests with the operator.

TRANSPORT

- Use extra care when loading or unloading the machine into a trailer or truck.
- Use full width ramps.
- Tie the machine down securely.

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.
- Maintain machine according to manufacturer's schedule and instructions for maximum safety and best results.
- Guards should only be removed by a qualified technician for maintenance or service. Replace guards when work is complete.
- Adjust or repair only after the engine has been stopped and the blade has stopped moving.
- Disconnect spark plug wire(s) before making any repairs.
- 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.
- Do not put hands or feet near or under rotating or moving 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.
- Particular care must be taken when adjusting the carburetor while the engine is running. Keep hands and feet clear. Shut off PTO if possible.
- When working underneath lifted parts or machines, make sure adequate support is provided.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Replace worn or damaged parts for safety.
- Use only replacement parts supplied by original manufacturer.
- Stop the engine and allow to cool before storing.

HYDRO JR SOD CUTTER

FUEL



WARNING



- Gasoline is extremely flammable; gasoline vapors are explosive. Use extra care when handling. A fire or explosion from gasoline can burn you or others and/or cause property damage.
- Do not store the machine and/or fuel container(s) in a space also containing heating appliances with an open flame such as a water heater or other appliance with a pilot light.
- Do not use tools such as grinders or torches in areas when fuel is kept.
- Keep petrol (gasoline) storage area free of grass, leaves and excessive grease to reduce fire hazard.
- Keep the machine and fuel containers in a locked storage place to prevent tampering and to keep children from playing with them.

BLADES



WARNING



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.

STORAGE SAFETY

- Stop the engine and allow to cool before storing.
- Keep the machine and fuel containers in a locked storage place to prevent tampering and to keep children from playing with them.
- Clean grass and debris from cutting blade, drives, mufflers and engine to help prevent fires.

SET-UP

To prevent injury, wear eye protection and stand clear when cutting banding. Banding is under tension and may snap back when cut.

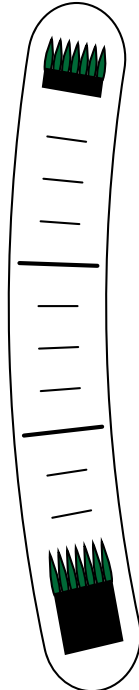
1. Remove crate top, sides and plastic covering unit. Remove the banding attaching the Sodcutter-Hydro to the pallet.
2. Roll the Sodcutter-Hydro off the pallet. The unit can also be driven off the pallet, but first read the Safety, Controls, and Operation sections of this manual, then check the oil and add gasoline.
3. Dispose of pallet, crate, plastic and banding in a responsible manner.

DECALS

HYDRO JR SOD CUTTER

SAFETY DECALS

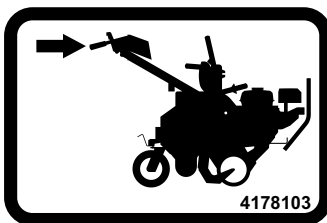
Replace labels if damaged or illegible.



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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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Position ByPass Lever here to push machine.



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Position ByPass Lever here to drive machine.



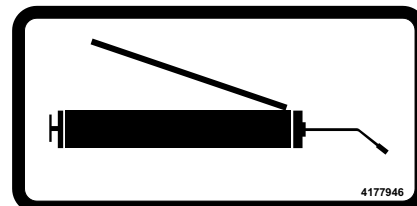
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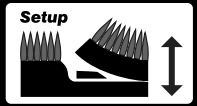


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Grease point


HYDRO JR SOD CUTTER




Setup



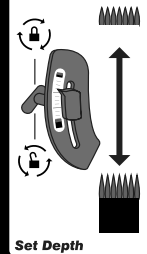
Jr. Sod Cutter-Hydro




WARNING
BEFORE STARTING OR SERVICING:
-Read and Understand the Operator's Manual and Labels.
-Ensure the machine is in safe operating condition.
BEFORE LEAVING MACHINE:
-Release Blade and Traction Levers..
-Switch Engine OFF.




Operation



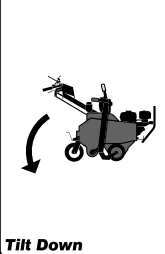
Set Depth



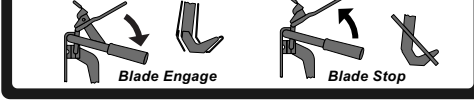
Tilt Up




Lower/Raise Blade



Tilt Down



Blade Engage **Blade Stop**



Neutral **Forward** **Reverse** 4177612

4177612



WARNING



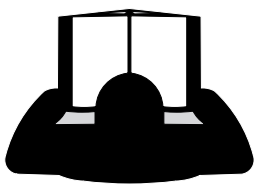
-MOVING BLADE
CAN CUT

-KEEP HANDS AND
FEET AWAY FROM
MOVING PARTS

-STOP ENGINE
BEFORE
SERVICING

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OPERATOR'S MANUAL

- Read and understand
- Replace if lost or damaged


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California Proposition 65



WARNING: Cancer and Reproductive Harm-
www.P65Warnings.ca.gov.



ADVERTENCIA: Cáncer and Daño Reproductivo-
www.P65Warnings.ca.gov.

SPARK ARRESTOR WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

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NOTICE



**LOCK CASTER BEFORE
OPERATING IN REVERSE**

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ENGINE CONTROLS

HYDRO JR SOD CUTTER

ENGINE SWITCH (A)

Move to the "ON" position to start engine.
Move to the "OFF" position to stop engine.

THROTTLE (B)

Controls engine speed.

CHOKE (C)

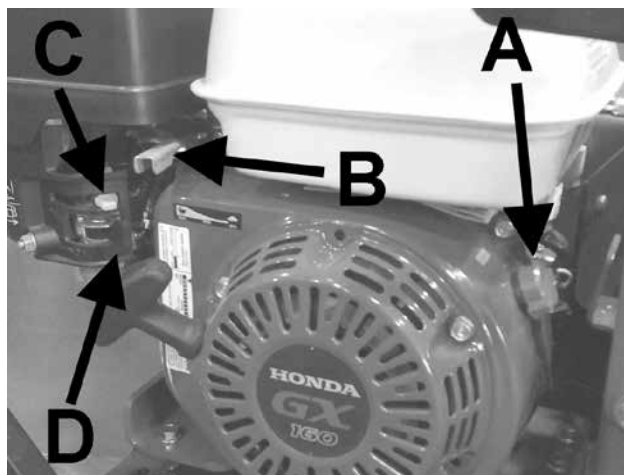
Enriches fuel/ air mixture to aid in cold engine starting.

FUEL VALVE(D)

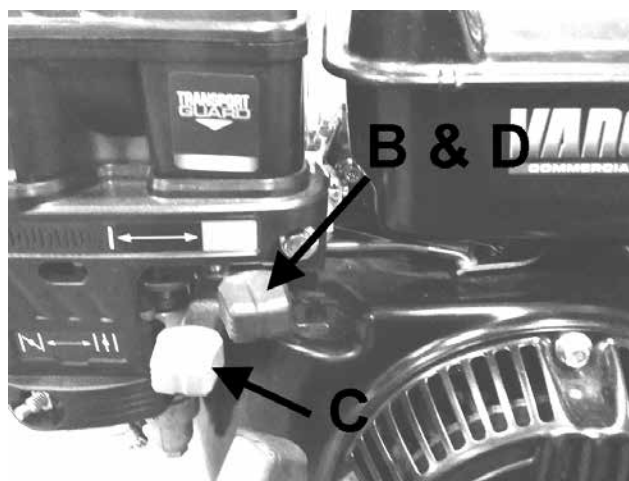
Open valve before starting engine. Close valve after stopping engine and before transporting

NOTE: Engine switch and fuel valve are controlled by same lever on B & S engines.

HONDA ENGINE



B & S ENGINE



HYDRO JR SOD CUTTER

YELLOW BLADE DEPTH CONTROL LEVER (A)

Raises or lowers cutting blade.

GREEN BLADE DEPTH CONTROL LOCKING LEVER (B)

Locking lever holds blade depth control in desired position.

BLACK BLADE ANGLE LOCKING LEVER (C)

Locks blade angle.

DEPTH STOP (D)

Allows resetting of blade depth to the previous cutting depth.

CASTER WHEEL LOCKING LEVER (E)

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

TRACTION CONTROL (F)

Forward: Pull lever toward handle. Speed increases the closer the lever is to the handle.

Neutral: Release lever. Machine will not move.

Reverse: Push thumb lever down. Speed increases until control hits the reverse stop.

BLADE CONTROL (G) & LATCH RELEASE LEVER (H)

Engages sod cutting blade.

Engage Blade: Push Latch Release Lever forward to release latch, Push Blade Control down to handle.

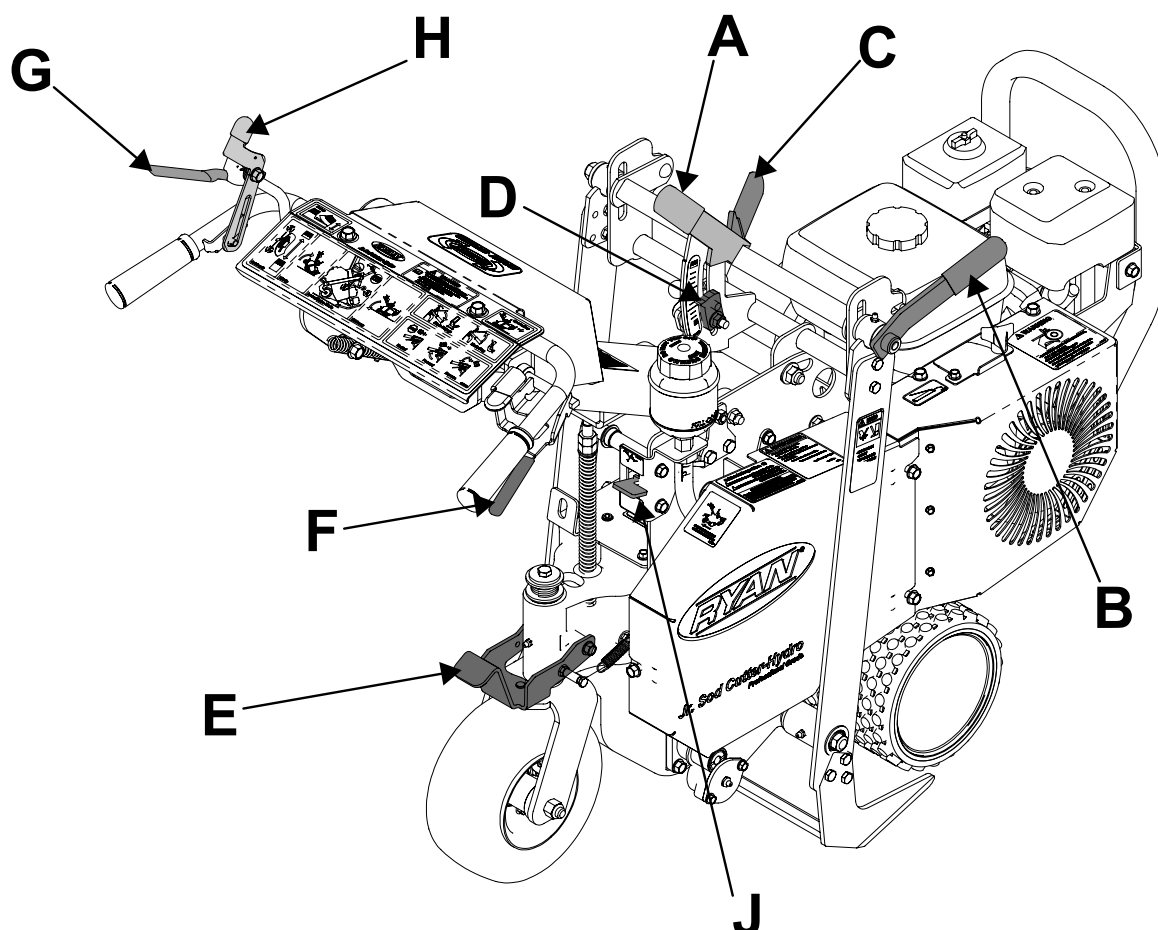
Disengage Blade: Release Blade Control Lever

BYPASS VALVE (J)

Allows machine to be moved with engine off.

Lever in Upper notch is "DRIVE" position.

Lever in Lower Notch is "BYPASS" position.



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.
- Clean Hydrostat air intake.
- 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.

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.

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.

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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.

DRIVING THE MACHINE

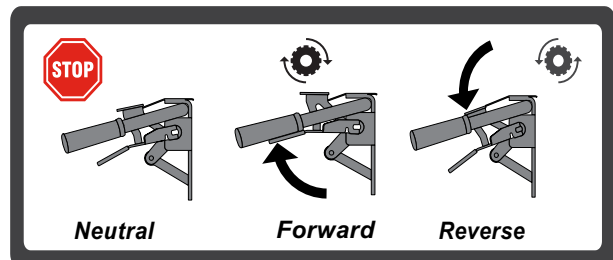
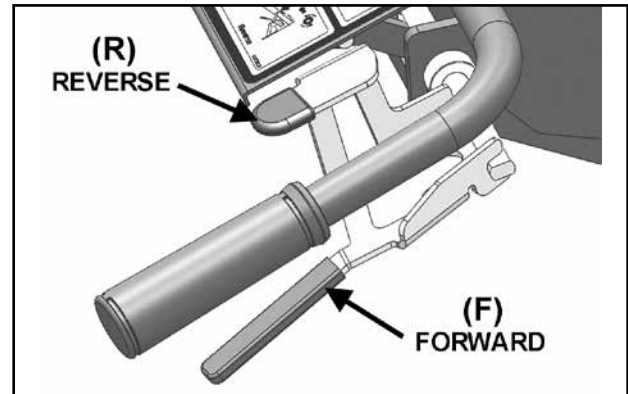
With the engine running, grasp the handle and squeeze the traction control lever **F** upward toward the handle to drive the machine forward. The more the lever is squeezed, the faster the machine will move, up to its maximum forward speed.

STOPPING THE MACHINE

Release the control and the machine will return the neutral. Releasing the control rapidly will result in an abrupt stop. A gradual release will result in a smooth stop.

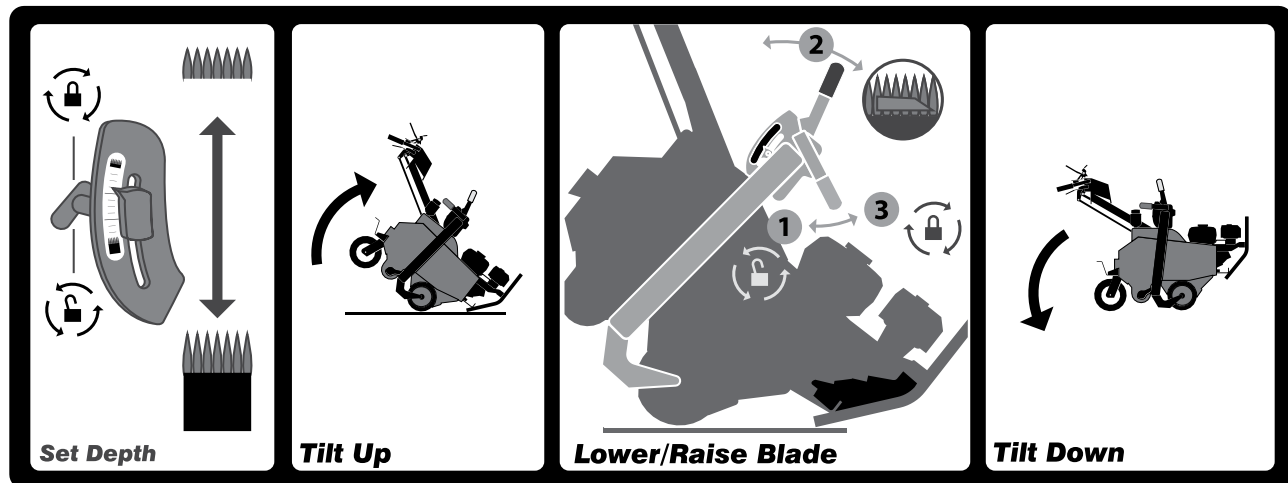
REVERSING THE MACHINE

Push down on the Reverse thumb lever **R** of the traction control. The more the control is pushed down, the faster the machine will back up. The machine will return to neutral when the control is released.



OPERATION

HYDRO JR SOD CUTTER



CUTTING SOD

⚠ WARNING

Underground utilities. Electrocution, explosion, service disruption risk.

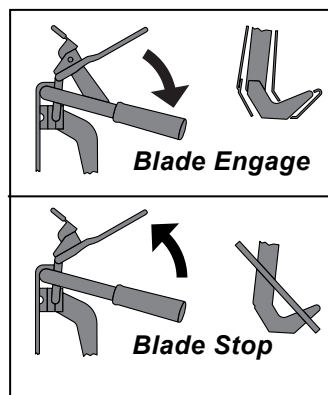
Before beginning any work, check with the local authorities for underground utility location and depth. Do not operate where there is any risk of contacting underground utilities. Contacting buried utilities could result in a service outage. Contacting buried electrical wires could result in electrocution. 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, 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. Keep the machine tipped forward. Start the engine. Push the blade clutch latch forward and then start the blade by squeezing the blade clutch lever to the handle. Once the blade is moving gradually engage the traction control and drop the blade into the ground as the machine starts to move forward.

NOTE: When the blade clutch is engaged, a stop limits the forward speed so the forward drive speed does not over run the cutter blade. If you try to squeeze the lever through the stop, the blade clutch lever will start to lift off the handle.

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. This allows the rear wheel to swivel and makes curved cuts easy.
4. Adjust the throttle to full speed. Use the traction control to vary the speed of the machine. Operation at less than full engine speed may damage the hydrostat.
5. Cut for a short distance. Stop the machine and check the sod thickness. Adjust the Depth Stop and blade if necessary. See Adjustments section.
6. Continue cutting. At the end of each pass lift up on the handle to raise the blade out of the sod. Turn around and lower the machine back into the sod for the next pass.



HYDRO JR SOD CUTTER

BELT ADJUSTMENT

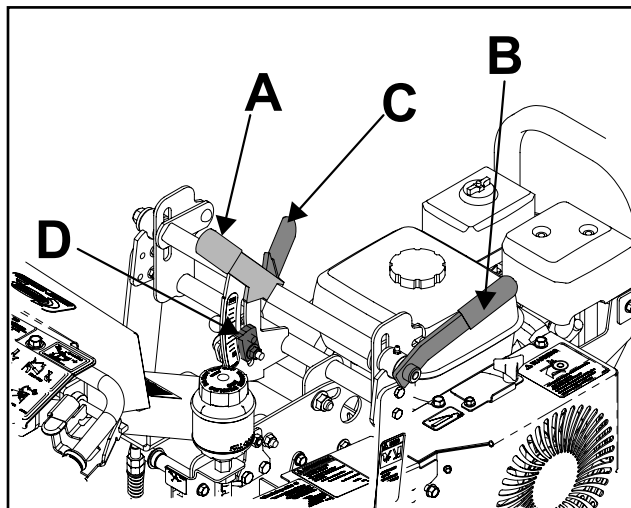
Both belts are tensioned with spring loaded idlers. There is no adjustment needed.

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.

INITIAL DEPTH SETTING

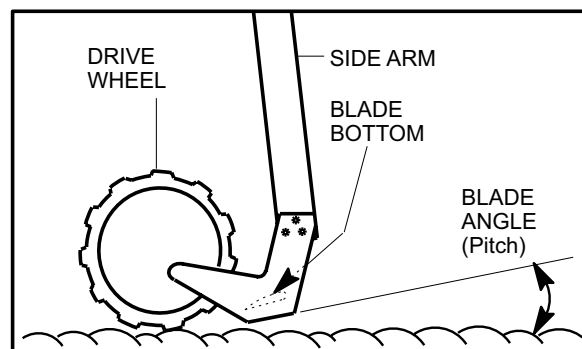
1. Park the machine on a hard surface. Loosen green depth control locking lever **B** and lower the yellow depth control lever **A** until the blade rests on the surface.
2. Loosen the depth gauge lock and set top of depth gauge **D** to 3/4" (20mm) below the yellow depth control lever **A**. Tighten 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 **A** until the depth control crossbar hits the Depth Stop **D**. Tighten the green locking lever **B** to lock in the depth setting. Make a trial run in turf. Check the depth of cut.
4. Re-adjust the depth gauge **D** and yellow depth control lever **A** if necessary.



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 tend 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.

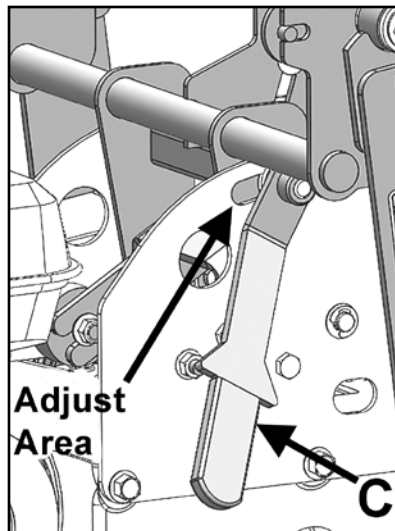


ADJUSTMENTS

HYDRO JR SOD CUTTER

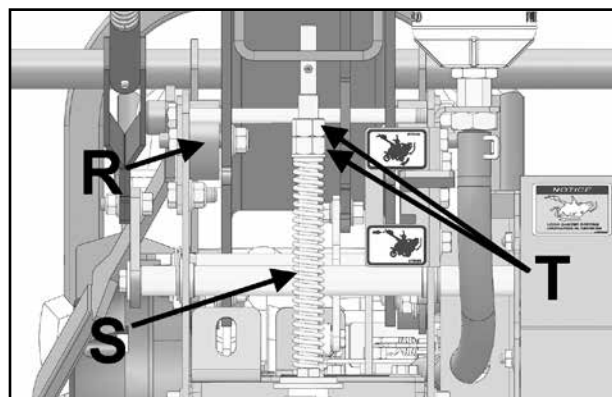
ADJUSTING BLADE ANGLE (PITCH)

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



HANDLE SUPPORT SPRING

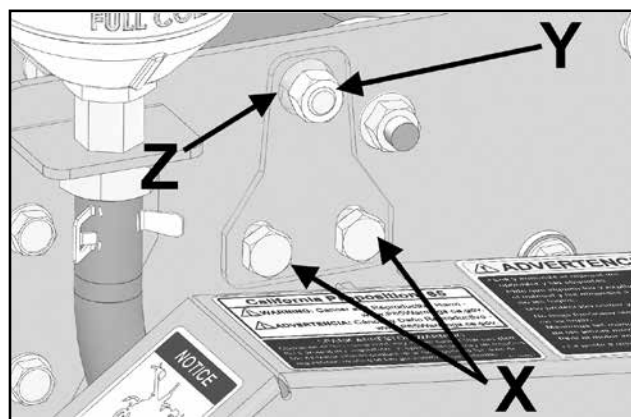
This spring **S** helps support the handle. If the four (4) handle isolator mounts **R** are sagging or distorted, the two locking adjustment nuts **T** can be tightened downward to increase the spring force and raise the handle.



HANDLE STOP BOLTS

These two bolts **Y** (one on each side) 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.

1. 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**.



HYDRO JR SOD CUTTER

HYDROSTAT NEUTRAL ADJUSTMENT

WARNING

Rotating parts are exposed to make this adjustment. To prevent injury, stop the engine while making the adjustment. Keep clear when checking adjustment.

The neutral stop is secured with a bolt and locknut.

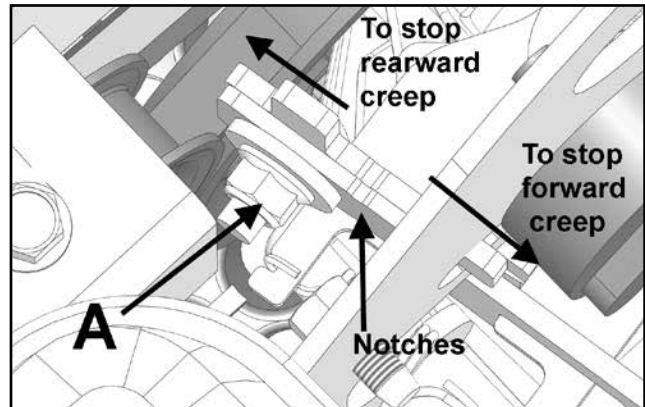
To Adjust:

1. Remove the belt covers for access. Loosen the nut **A** and bolt. Move the stop so the notch in it lines up with the notch in the mounting bracket for an initial setting. Tighten nut and bolt.
2. Start the engine and run it at idle. Check whether the machine creeps or stays stationary. If the machine stays stationary, increase the speed to high idle to check the setting. If the machine stays stationary the setting is complete. Stop the engine and reinstall removed belt covers.
3. If the machine creeps,

Stop the engine and loosen the stop nut and bolt.

If the machine creeps forward, move the stop toward the machine slightly.

If the machine creeps rearward, move the stop away from the machine slightly.



4. Tighten the stop nut and bolt.
5. Repeat steps 2 and 3 until the machine does not move with the engine running.
6. Reinstall belt covers.

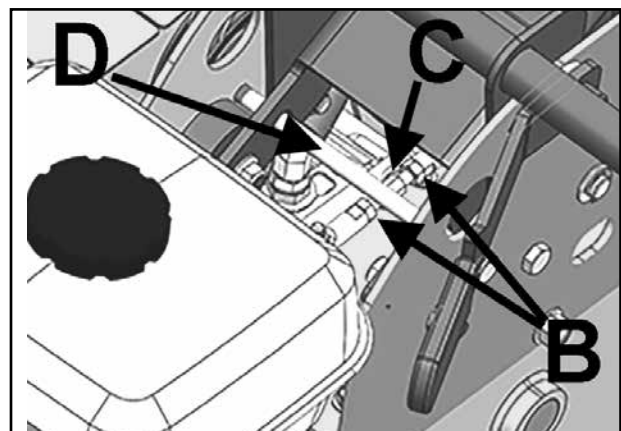
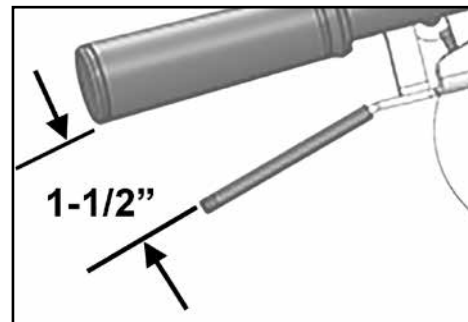
TRACTION LEVER ADJUSTMENT

The traction lever should be adjusted to 1-1/2" (38mm) gap between the end of the lever and the handle grip with the slack taken out.

To Adjust:

1. Loosen the jam nuts **B** at each rod end of the connector link turnbuckle.
2. Turn the turnbuckle **C** so that the distance from the traction lever to the handle grip is 1-1/2" (38mm) with all the slack taken out. Take the slack out by lifting up on the traction lever until resistance from the return to neutral mechanism is felt.
3. Tighten jam nuts **B**.

NOTE: This adjustment is much more easily done if bolt **D** is removed for the adjustment. Replace bolt **D** when adjustment is complete.



MAINTENANCE

HYDRO JR SOD CUTTER

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.

WARNING



ROTATING PARTS CAN ENTANGLE,
CUT AND CRUSH

- Keep hands away from moving parts.
- Do not operate without guards and shield in place.
- Disconnect spark plug and read manual before performing any service or maintenance.

DAILY MAINTENANCE

General:

Accumulations of dirt and grass or other debris can interfere with cooling the engine, hydrostat and gear case. Clean any accumulations of dirt, grass or other debris from the engine, gear case and cooling slots in the belt covers.

Belt Covers:

Check that the cooling air intake slots are clear and open and the covers are properly installed. The belt covers serve as ducting to direct cooling air from the fan on the engine crankshaft over the hydrostat. Operating without covers or with the cooling air inlets blocked, can result in overheating or failure of the hydrostat.

Blades:

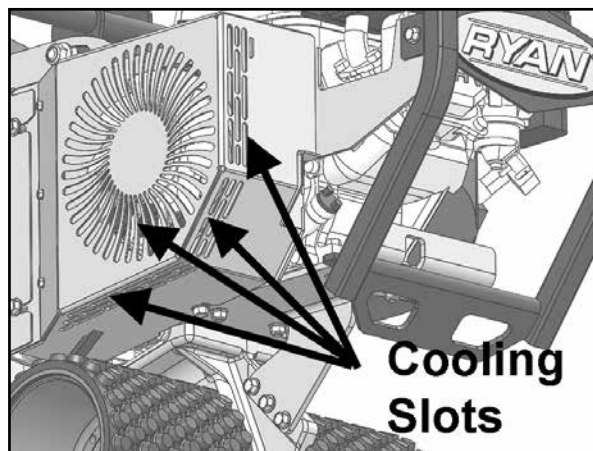
Check for damage. Replace any broken, cracked or otherwise damaged blades. Do not weld or straighten blades. Replace or sharpen dull blades. See sharpening instructions.

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.



HYDRO JR SOD CUTTER

LUBRICATION

Gear Case:

The gear case is initially filled with 3 1/2 pints (1.7L) of EP 140 Gear Lube. Do not add to this amount unless oil is changed or lost through leakage. There are three plugs in the gear case. Fill **A**, Level **B**, and Drain **C**.

Hydrostat:

The hydrostat does not normally require fluid changes.

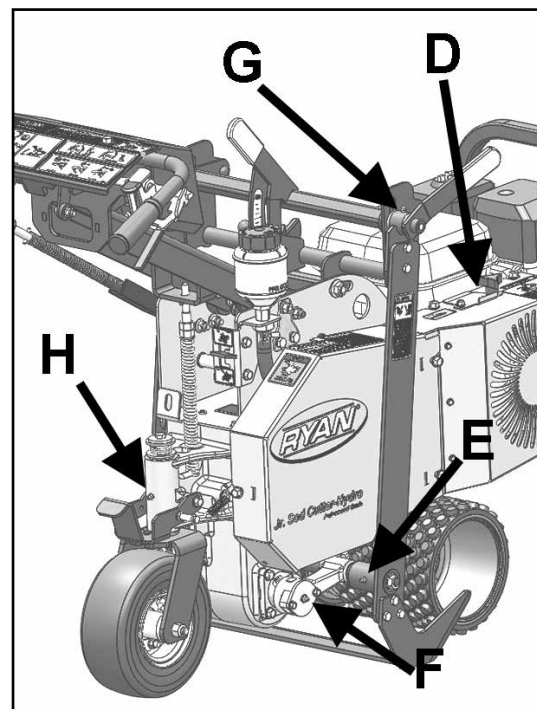
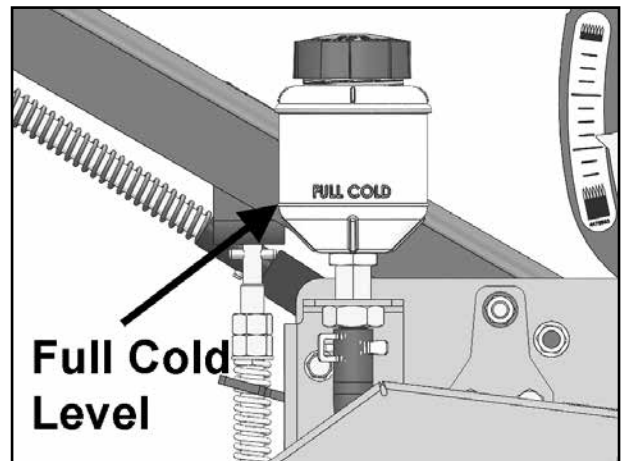
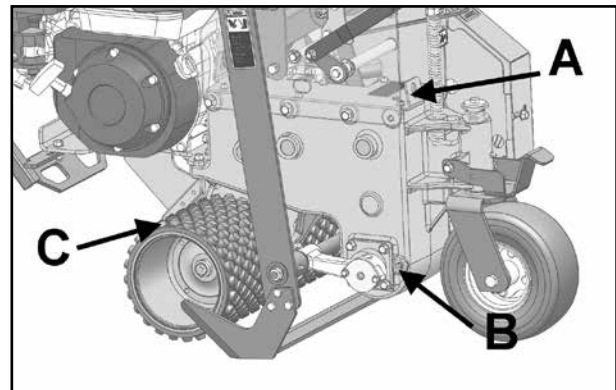
The hydrostat is filled with 20w50 oil to the "FULL COLD" line on the expansion bottle. Visually check the level and top off if needed. The oil level will rise when the machine runs and the oil warms up.

Grease Fittings:

The Jr-Hydro Sod Cutter is equipped with 9 grease fittings. Use a good grade of Lithium Based grease.

ID	Location	Qty	Every 4 hours	Every 8 hours
D	Hydro Belt Idler Pivot	1		X
E	Side Arms*	2	X	
F	Pitman Arms	2	X	
G	Side Arm Pivots	2		X
H	Caster Pivot	1		X

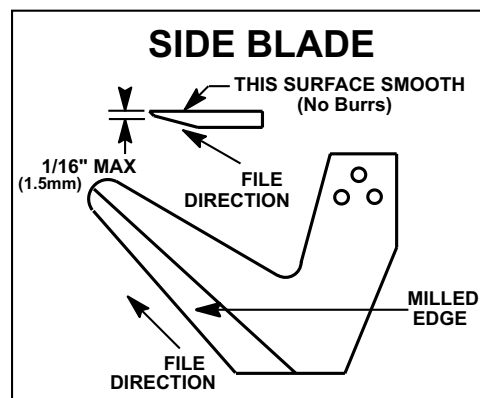
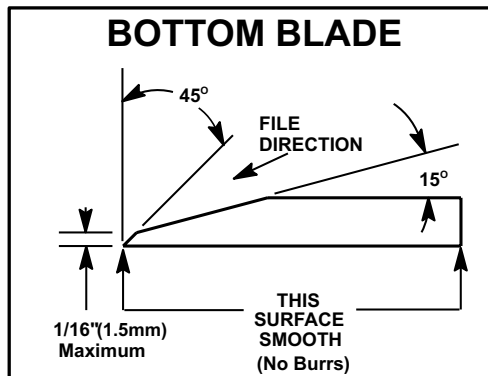
*The side arms have two fittings each to eliminate the need for left and right parts. Only one fitting per side arm needs to be greased.



BLADE SHARPENING

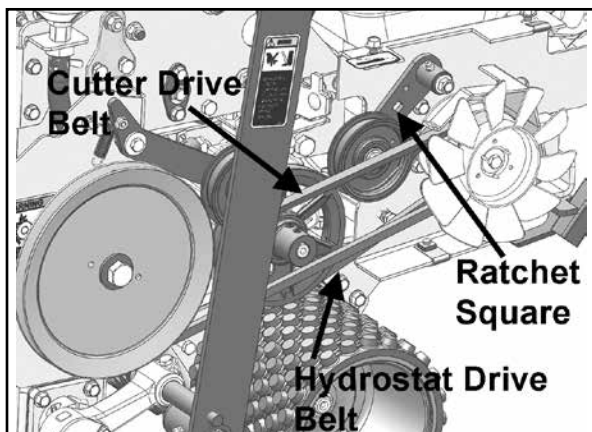
1. Hand file bottom blade at 45° angle until no flat remains.
2. To keep cutting edge less than 1/16" (1.5mm) on 45° angle, grind milled surface back at 15° to less than 1/16" (1.5mm).
3. Hand file side blades at 45° until no flat remains.
4. To keep cutting edge less than 1/16" (1.5mm) on 45° angle,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

NOTE: If using optional laser edge blades, no sharpening is required until the laser cladding is worn away. The cladding is harder than the blade material so the blades will self-sharpen until the cladding wears through.



CUTTER DRIVE BELT REPLACEMENT

1. Remove the belt covers on the right side of the machine by backing off the bolt enough so covers can be removed. Remove the rear cover first, then the front cover.
2. Remove the cutter drive belt from the big pulley then work it off the engine pulley and over/through the fan. Install the new belt in reverse order.
3. Reinstall belt covers.



HYDROSTAT DRIVE BELT REPLACEMENT

1. Remove the cutter drive belt as detailed above.
2. Back off the hydrostat drive idler just enough to remove the belt from the hydrostat pulley. A square hole is provided for a 3/8" ratchet handle or breaker bar to back off the idler.
3. Work the belt off the engine pulleys and over/through the fan.
4. Install the new hydrostat drive belt in reverse order.
5. Reinstall the cutter drive belt and belt covers.

HYDRO JR SOD CUTTER

CLEANING MACHINE

Clean the machine after use. Compressed air is recommended. Do not use a pressure washer. The machine will run cooler and last longer if kept free of clippings and other debris. A clean machine also reduces the risk of fire due to accumulation of combustible debris and chaff.

WASHING MACHINE

CAUTION: Improperly washing a machine can cause water to enter bearings and other components. This can greatly reduce component life.

- Do not use a pressure washer. Do not direct water at bearings or seals. High pressure water can blow past seals and enter sealed bearings.
- Allow the machine to cool down before washing. Water on a warm machine can be sucked into sealed bearings as they cool.
- Avoid getting electrical connections wet. Water can cause electrical faults and corrosion of electrical components.

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.

SPECIFICATIONS

HYDRO JR SOD CUTTER

Models:

544963..... Hydro Jr Sod Cutter- 18 in.(45.7cm)

Engine

Model.....4 cycle 6.5H.P.(4.8KW) B&S Vanguard,
Model 12V332 / Type 0138 Trim F1
12.4 cu. in. (203 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

544961.....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..... 13.4:1

Speed:

Cutting.....0-2 mph

Transport.....0-4 mph

Wheels:

Drive..... 8" (203 mm) Dia. w/knobby
tread molded 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 blade.....roller chain

Gear case:

Lubrication..... EP140 Gear lube

Capacity..... 3 1/2 Pints (1.7L)

Cutting width:

544963 & 544961.....18" (457 mm)

Blade pitch:

Hand lever adjustment..... variable 0° to 9°

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:

544961375 lbs. (170 Kg)

544963379 lbs. (172 Kg)

TOUCH -UP PAINT:

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

TROUBLE SHOOTING

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. B. Adjust blade angle.
Root hair pinning on side or bottom of blade.	Some types of turf and coil make this a problem.	Keep the blade extra sharp and ground back at a low angle.

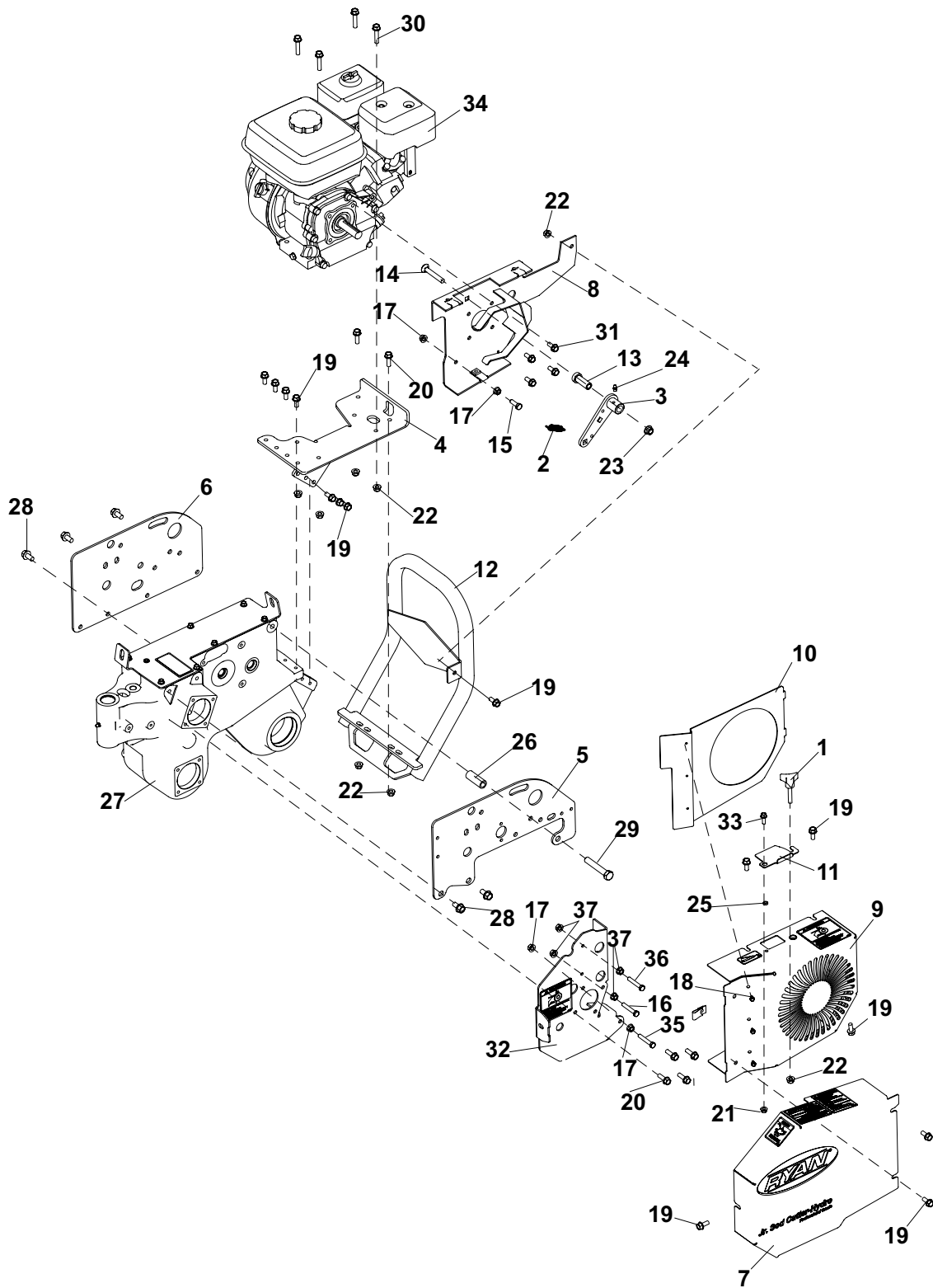
**HYDRO
JR SOD CUTTER**

**PARTS
SECTION**

ENGINE AND GUARD ASSEMBLY

HYDRO JR SOD CUTTER

FIGURE 1



ENGINE AND GUARD ASSEMBLY

HYDRO JR SOD CUTTER

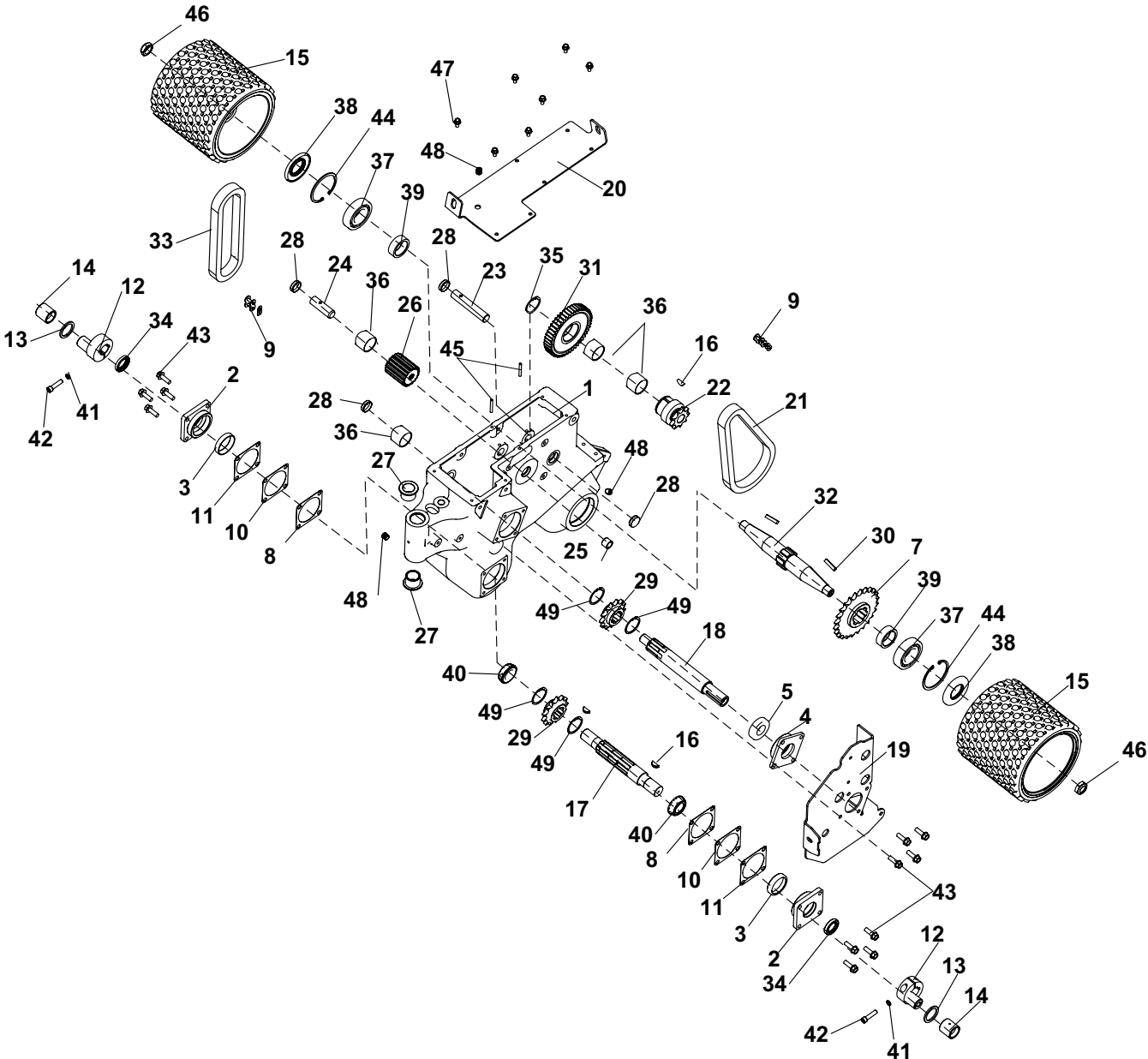
FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4163446	KNOB-3 PRONG MALE, 5/16-18	1	21	64268-01	NUT-FL NYLON LOCK 1/4-20	1
2	4164627	SPRING-EXT, .5 X 2.25 X .055	1	22	64268-02	NUT-FL NYLON LOCK 5/16-18	8
3	4170042.7	WLDMT-IDLER	1	23	64268-03	NUT-FL NYLON LOCK 3/8-16	1
4	4177081.2	PLT-ENGINE SUPPORT-HYDRO	1	24	85010N	GREASE ZERK	1
5	4177459.2	PLT-RIGHT HYDRO	1	25	814585	BUSHING	1
6	4177460.2	PLT-LEFT HYDRO	1	26	2183063-07	SPACER-19.05OD X 12.97ID X 50	1
7	4177960	S-GUARD-BELT, REAR W/ LABELS	1	27	4177100	ASSY-GEARBOX HYDRO	1
8	4178229	S-BASE FRONT BELT GUARD	1	28	64262-010	BLT-FLG HD 3/8-16 X 3/4	6
9	4177959	GUARD-FRONT BELT W/ LABELS	1	29	64123-31	BLT-HEX 1/2-13X3	1
10	4177667.2	PLT-FRONT BELT GUARD BAFFLE	1	30	64262-009	BLT-FLG HD 5/16-18 X 1-1/2	4
11	4177668.2	COVER-GREASE ACCESS	1	31	64139-01	BLT-WLF 5/16-24X3/4	4
12	4177711.7	WLDMT-FRONT GUARD HYDRO	1	32	4178206	S-PLT-GUARD MOUNT	1
13	4177889	BUSHING-PIVOT	1	33	64262-002	BLT-FLG HD 1/4-20 X 3/4	1
14	64018-31	BLT-CRG 3/8-16 X 2-1/2	1	34	540354	ENGINE HONDA GX160 5.5HP OHV	1
15	64123-68	BLT-HEX 5/16-18X1	1	34	4166692	ENGINE-B&s 6.5HP	1
16	64123-114	BLT-HEX 1/4-20X1	1	35	64123-12	BLT-HEX 5/16-18X2-1/2	1
17	64141-6	NUT-WLF 5/16-18	4	36	64123-80	BLT-HEX 1/4-20X1-1/4	1
18	64152-56	SCREW-HS STAP #12X1/2	3	37	64141-2	NUT-WLF 1/4-20	4
19	64262-006	BLT-FLG HD 5/16-18 X 3/4	14				
20	64262-007	BLT-FLG HD 5/16-18 X 1	6				

GEAR CASE

FIGURE 2

HYDRO JR SOD CUTTER



HYDRO JR SOD CUTTER

GEAR CASE

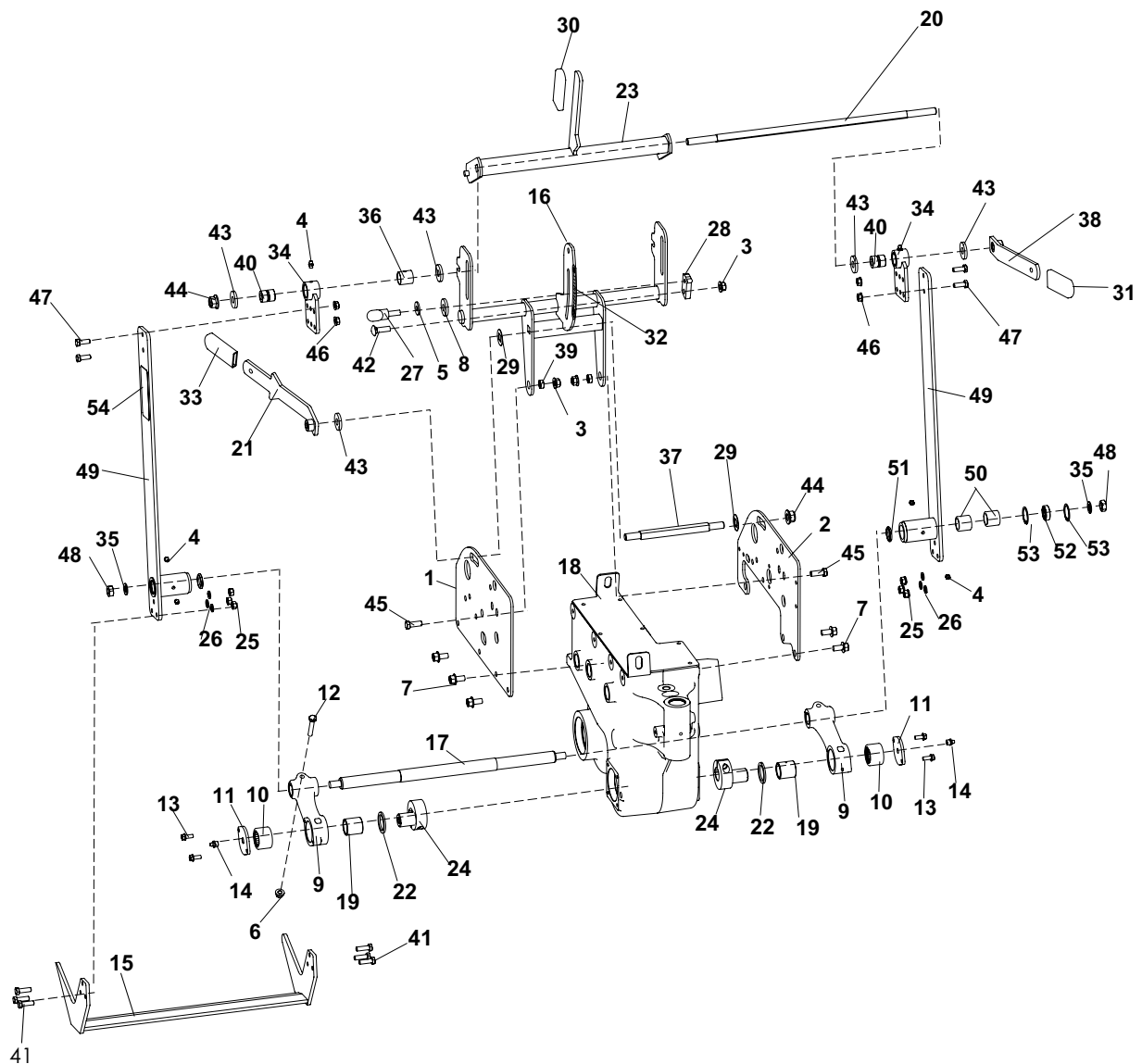
FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4177743	CASE-GEAR HYDRO SOD	1	26	41782329	S-GEAR-INPUT, SPLINE BORE 18T	1
2	545050	CAGE-BEARING	2			INCLUDES ITEM 36	
		INCLUDES ITEM 3		27	4129801	BUSHING-FLANGED	2
3	48043-03C	CUP-BEARING L44610	2	28	4128002	CAP-26 X 7 END	4
4	544215	CASTING-BEARING CAGE	1	29	4177830	SPROCKET-13 TOOTH SPLINED	2
		INCLUDES ITEMS 5, 6		30	64164-10	1/4X1/4X1-1/4 MACH KEY	2
5	548131	BRG BALL- 1.0 X2 .0 X .5	1	31	519404	GEAR-48T	1
6	64144-17	TRUARC INTERNAL RETAIN RING	1	32	520723	SHAFT-SODCUTTER WHEEL	1
7	545626	SPROCKET-#50 24 TOOTH	1	33	4177831	CHAIN-#50 37 PITCHES	1
8	520238	SHIM-.005	2	34	548272	SEAL-OIL 1.00 SHAFT	2
9	4172865	LINK-CONNECTOR #50	2	35	64144-49	RING-RET 1-3/4 EXT	1
10	520239	SHIM-.010	2	36	548080	BRG.NDL.75 1.00.75 OPEN END	4
11	520240	SHIM-.020	2	37	548953	BEARING-BALL 6207 OPEN	2
12	545436	ECCENTRIC- ASSY	2	38	548954	SEAL OIL 1.38 SHAFT	2
		INCLUDES ITEMS 13, 14		39	520722	SPACER	2
13	521424	RING	2	40	48043-04C	CONE-BEARING 48043-04C	2
14	548814	RACE-INNER (NEEDLE BEARING)	2	41	64006-16	LOCKWSHR-5/16 HI-COLLAR	2
15	4177829	WHEEL 18" SODCUTTER	2	42	64189-34	BLT-HEX SOC 5/16-18 X 1-1/4	2
16	64164-19	KEY, WOODRUFF 3/16 X 3/4 #606	3	43	64262-007	BLT-FLG HD 5/16-18 X 1	12
17	4177749	SHAFT-ECCENTRIC	1	44	64144-48	RING-RET 2.812 (72 MM) INT	2
18	4177750	SHAFT - CUTTER INPUT	1	45	64061-27	ROLLPIN-3/16 X 1-1/2	2
19	4178206	S-PLT, GUARD MOUNT	1	46	64151-16	NUT-NYLON LOCK 3/4-10	2
20	4177617	COVER-GEARBOX	1	47	64262-001	BLT-FLG HD 1/4-20 X 1/2	7
21	4177479	CHAIN-#50 41 PITCHES	1	48	69051-05	PLUG-PIPE 1/4 INT	3
22	4178231	S-SPROCKET-9T #50	1	49	64144-29	RING-RET 1.250 EXT	4
		INCLUES (2) ITEM 36		50	4177100	ASSY-GEARBOX HYDRO	1
23	4177445	SHAFT-IDLER 3/4 X 4	1			INCLUDES ITEM 1-49	
24	4177446	SHAFT-PINION INPUT 3/4 X 2-3/8	1				
25	4177448	BEARING-BRZ 15 X 19MM	1				

SIDE ARMS, PITMAN ARMS AND CONTROL HANDLES

HYDRO JR SOD CUTTER

FIGURE 3



SIDE ARMS, PITMAN ARMS AND CONTROL HANDLES

HYDRO JR SOD CUTTER

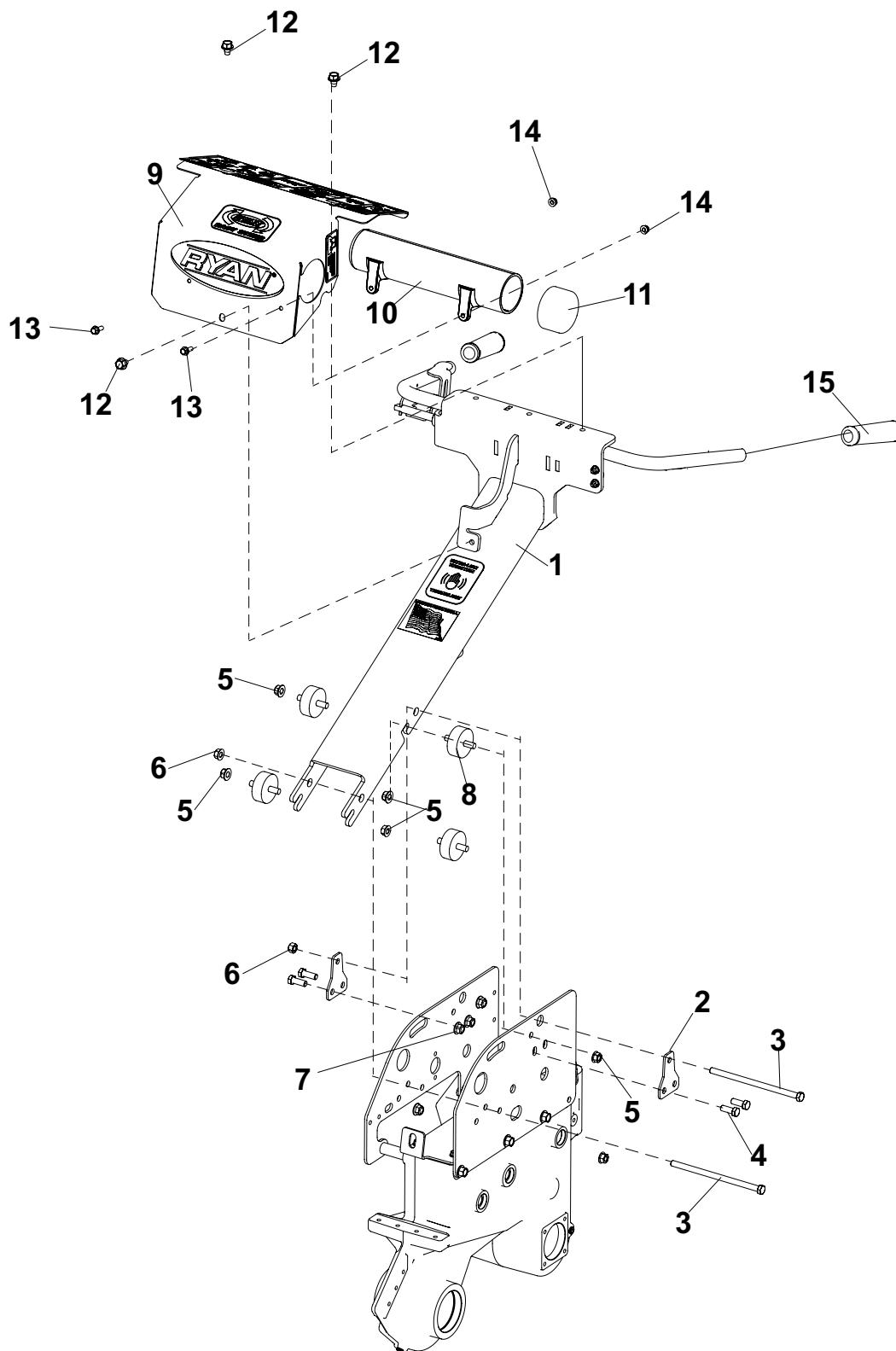
FIGURE 3

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4177460.2	PLATE, SUPPORT LH	1	28	4164446	PLATE-ADJUSTMENT STOP	1
2	4177459.2	PLATE SUPPORT, RT	1	29	4113281	WSHR- SPCL .531 SQ 1.25OD 20GA	2
3	64268-03	NUT-FL NYLON LOCK 3/8-16	3	30	4135868-02	COVER-HANDLE, YELLOW	1
4	85010N	ZERK 1/4-28 STR SELF THREAD	6	31	4135868-01	COVER-HANDLE, GREEN	1
5	64163-31	WSHR 25/64X1X12	1	32	4175983	LABEL-CUT DEPTH	1
6	64268-02	NUT-FL NYLON LOCK 5/16-18	2	33	4135868	COVER-HANDLE, BLACK	1
7	64262-010	BLT-FLG HD 3/8-16 X 3/4	6	34	545443.7	BRACKET AY	2
8	2308066	WASHER-FRICTION.390IDX1.12	1			INCLUDES ITEM 4, 36	
9	521427	ARM-PITMAN	2	35	64163-98	WSHR-.515X.875X14GA	2
10	521428	BRG JHT-2017.NDL 1.25 1.62 1.0	2	36	521429	BRONZE BEARING	2
11	521425	PLATE-COVER	2	37	524549	ROD-TIE, LOWER	1
12	64123-61	BLT-HEX 5/16-18X1-3/4	2	38	545449.7	WLDMT-HANDLE	1
13	64197-025	BLT-TDFM 1/4-20X5/8	4	39	515729	BUSHING	2
14	85010-03	ZERK-1/8 NPT, STR	2	40	516067	BUSHING .515ID .874OD 1.015LG	2
15	4132717.7	BLADE-SOD CUTTER 18IN WLDMT	1	41	515011	BLT-HEX 5/16-24X1 GR 8 SPCL	6
16	4177077	S-H FRAME-HYDRO	1	42	64018-7	BLT-CRG 3/8-16X1-1/4	1
17	521435.7	SHAFT-LOWER	1	43	64163-99	WSHR-.510X1.31X.179	5
18	4177100	GEARBOX	1	44	64268-05	NUT-FL NYLON LOCK 1/2-13	2
19	548814	RACE-INNER (NEEDLE BEARING)	2	45	64123-50	BLT-HEX 3/8-16X1	2
20	4177177	ROD-TIE UPPER	1	46	64141-9	NUT-WLF 5/16-18	4
21	4164570.7	WLDMT-HANDLE	1	47	64123-107	BLT-HEX 5/16-18X7/8	4
22	521424	RING	2	48	64151-33	NUT-HEX 1/2-20 TOP LOCK JAM	2
23	4177082.7	WLDMT-LEVER-HYDRO	1	49	4177787	ARM-SIDE	2
24	521422	ECCENTRIC-.750 OFFSET	2			INCLUDES ITEMS 4, 50-54	
		INCLUDES ITEMS 19 & 22		50	548138	BRG NDL.88 1.12 1.00 OPEN END	4
25	64025-03	NUT-HEX 5/16-24	6	51	521438	GREASE SEAL	2
26	64006-02	LOCKWSHR-5/16 HELICAL	6	52	521436	BEARING-BALL	2
27	4114727	KNOB-SPEED CONTROL	1	53	64144-42	LOCK RING- INTERNAL 1.125 X .050	4
				54	4164033	LABEL-CHF VERT	2

HANDLE ASSEMBLY

FIGURE 4

HYDRO JR SOD CUTTER



**HYDRO
JR SOD CUTTER**

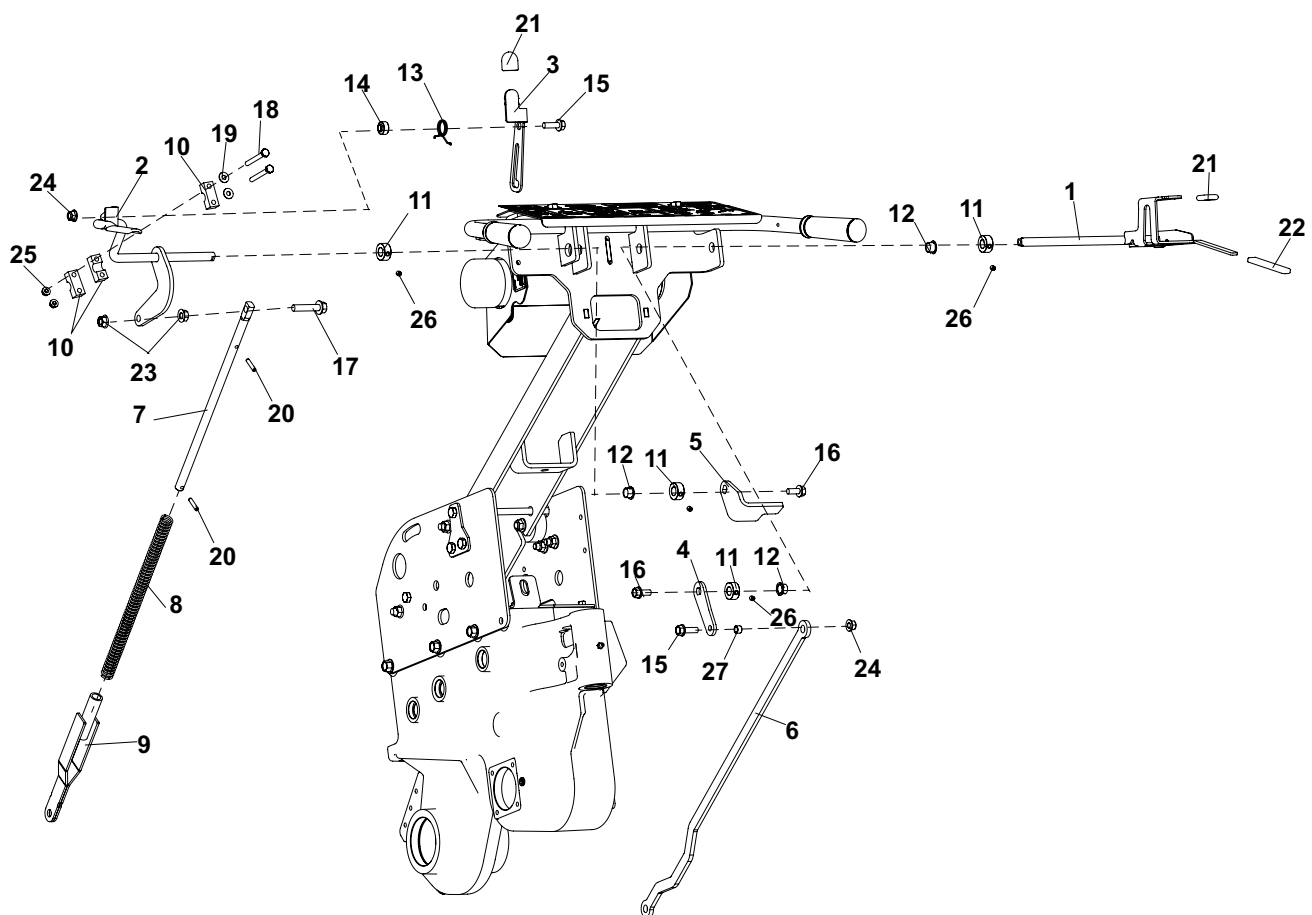
FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4179225.7	WLDMT-HANDLEBAR-HYDRO	1				
2	4164473.2	PLATE-BOLT CENTERING	2				
3	64123-266	BLT-HEX 3/8-16X7	2				
4	64123-50	BLT-HEX 3/8-16X1	2				
5	64141-4	NUT-WLF 3/8-16	10				
6	64151-18	NUT-HEX 3/8-16 CTR LOCK	2				
7	64268-03	NUT-FL NYLON LOCK 3/8-16	4				
8	C100546	MOUNT-VIBRATION	4				
9	4178208	S-CONTROL PANEL W/ LABELS	1				
10	4160281	S-TUBE,DOCUMENT	1				
		INCLUDES ITEM 11					
11	38061A	CAP-BLACK VINYL	1				
12	64197-016	BLT-TDFM 3/8-16X1/2	3				
13	64262-002	BLT-FLG HD 1/4-20 X 3/4	2				
14	64268-01	NUT-FL NYLON LOCK 1/4-20	2				
15	522727	GRIP HANDLE	2				

HANDLE CONTROLS ASSEMBLY

FIGURE 5

HYDRO JR SOD CUTTER



HYDRO JR SOD CUTTER

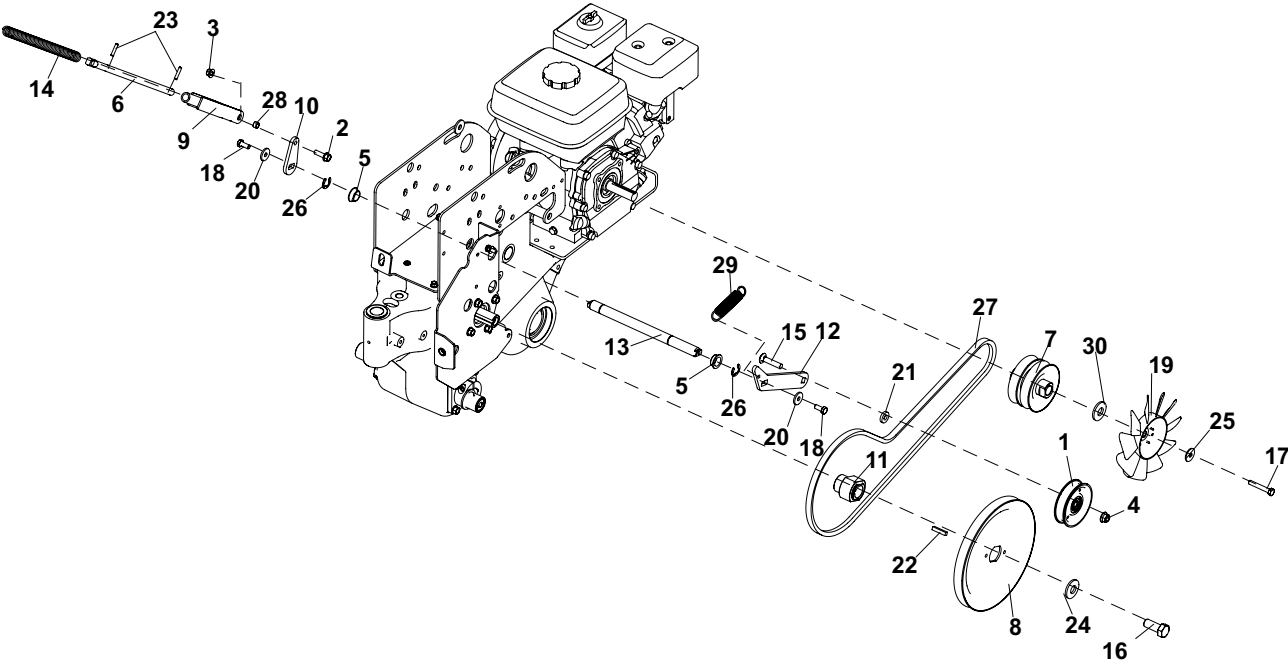
FIGURE 5

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4177603	WLDMT-HYDRO CONTROL	1				
2	4177602	WLDMT-CLUTCH CONTROL	1				
3	4177588	LATCH-BLADE CLUTCH	1				
4	4177582.7	ARM-CONTROL HYDRO	1				
5	4177844.7	STOP-CUT SPEED .75 CAM	1				
6	4177584.7	BAR-HYDRO CONTROL	1				
7	4164474	ROD-CONTROL	1				
8	518535	SPRING	1				
9	4177083.7	WLDMT-BLADE ENGAGE CLEVIS	1				
10	4177580	BLOCK-SHAFT MOUNT	3				
11	43067A	COLLAR SET	4				
12	4177581-01	BRG-FL SPLIT .50 X .375 LG	3				
13	4177601	SPRING-TORSION	1				
14	4175619	HUB-SPACER	1				
15	64262-007	BLT-FLG HD 5/16-18 X 1	2				
16	64262-006	BLT-FLG HD 5/16-18 X 3/4	2				
17	64262-018	BLT-FLG HD 3/8-16 X 1-3/4	1				
18	64123-113	BLT-HEX 1/4-20X2-1/4	2				
19	64163-03	WSHR .256ID X.62OD X 18 GA.	2				
20	64176-11	PIN-COILED SPRING 3/16X1	2				
21	4175610	GRIP	2				
22	4177604	GRIP1/8 X 1/2 X 3-1/4	1				
23	64141-4	NUT-WLF 3/8-16	2				
24	64268-02	NUT-FL NYLON LOCK 5/16-18	2				
25	64268-01	NUT-FL NYLON LOCK 1/4-20	2				
26	64044-1	SCREW-SET 1/4-20X1/4	4				
27	819337	BUSHING	1				

DRIVE ASSEMBLY

FIGURE 6

HYDRO
JR SOD CUTTER



HYDRO JR SOD CUTTER

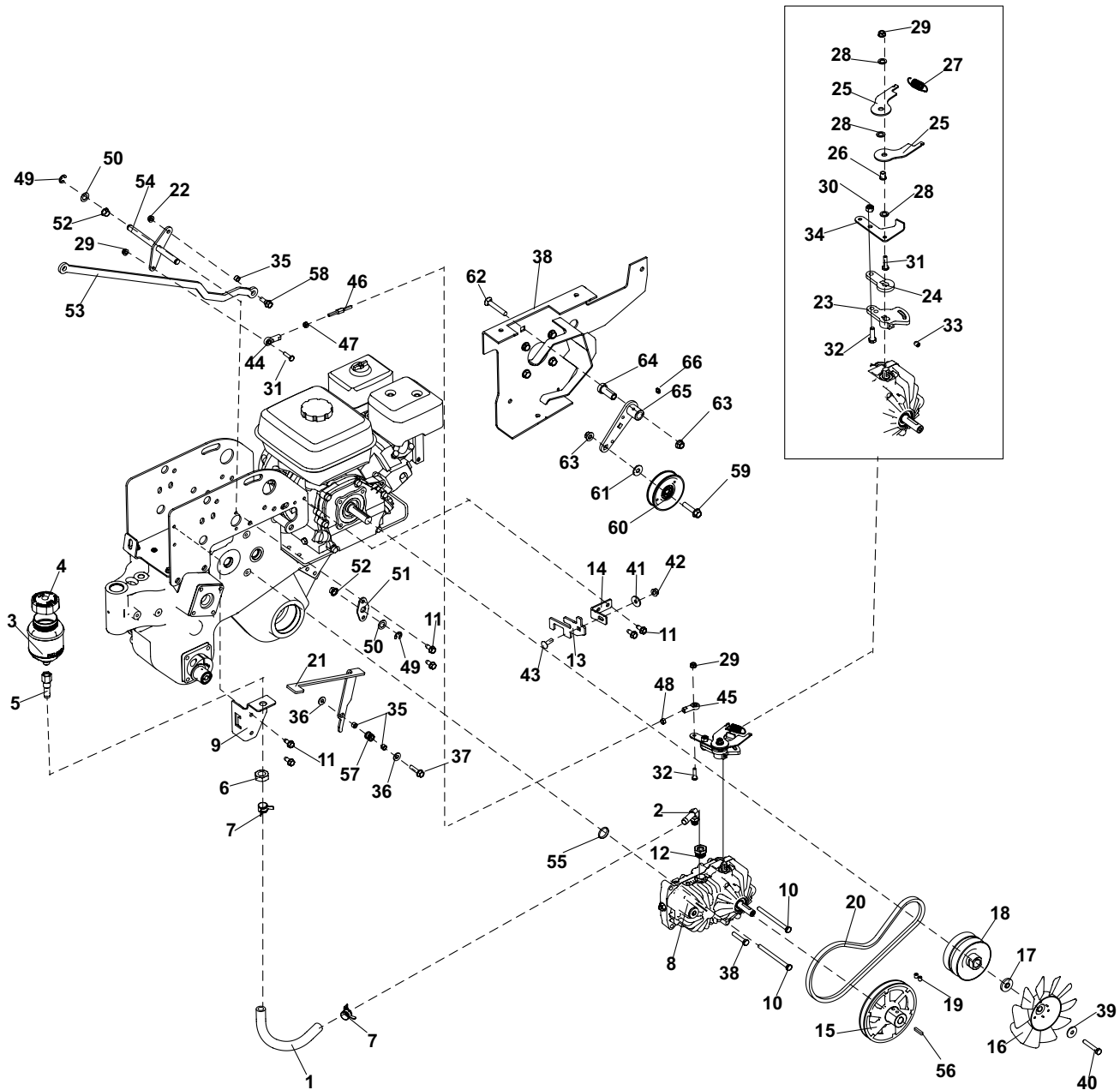
FIGURE 6

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	2228016	PULLEY-IDLER PUMP	1				
2	64262-007	BLT-FLG HD 5/16-18 X 1	1				
3	64268-02	NUT-FL NYLON LOCK 5/16-18	1				
4	64268-03	NUT-FL NYLON LOCK 3/8-16	1				
5	4146187	BEARING-FLANGE POLYMER	2				
6	4164474	ROD-CONTROL	1				
7	4177016	PULLEY-DOUBLE	1				
8	4177053	PULLEY-DRIVE 8.5A PD	1				
9	4177083.7	WLDMT-BLADE ENGAGE CLEVIS	1				
10	4177181.7	ARM-CONTROL	1				
11	4177751	HUB-SHEAVE	1				
12	4179220.7	ARM-TENSIONER	1				
13	4179221	SHAFT-PIVOT TENSIONER	1				
14	518535	SPRING	1				
15	64018-5	BLT-CRG 3/8-16X1-3/4	1				
16	64123-208	BLT-HEX 5/8-18X1-1/2	1				
17	64123-263	BLT-HEX 5/16-24X2 GR 8	1				
18	64123-54	BLT-HEX 5/16-18X3/4	2				
19	4177675	FAN-CW 7 INCH	1				
20	64163-29	WSHR-21/64 X 1 X 11GA	2				
21	64163-46	WSHR.383/.393X.88X7GA	1				
22	64164-10	KEY-SQ 1/4X1-1/4	1				
23	64176-11	PIN-COILED SPRING 3/16X1	2				
24	64209-03	WSHR-CON SPRING .67 ID	1				
25	64209-19	WSHR-CON SPRING .312 X 1.063	1				
26	64221-03	E-RING 19MM/.750	2				
27	81-A053	BELT A53	1				
28	819337	BUSHING	1				
29	4164627	SPRING-EXT,.5 X 2.25 X.055	1				
30	4177811	HUB-FAN	1				

HYDROSTAT ASSEMBLY

FIGURE 7

HYDRO JR SOD CUTTER



HYDROSTAT ASSEMBLY

HYDRO JR SOD CUTTER

FIGURE 7

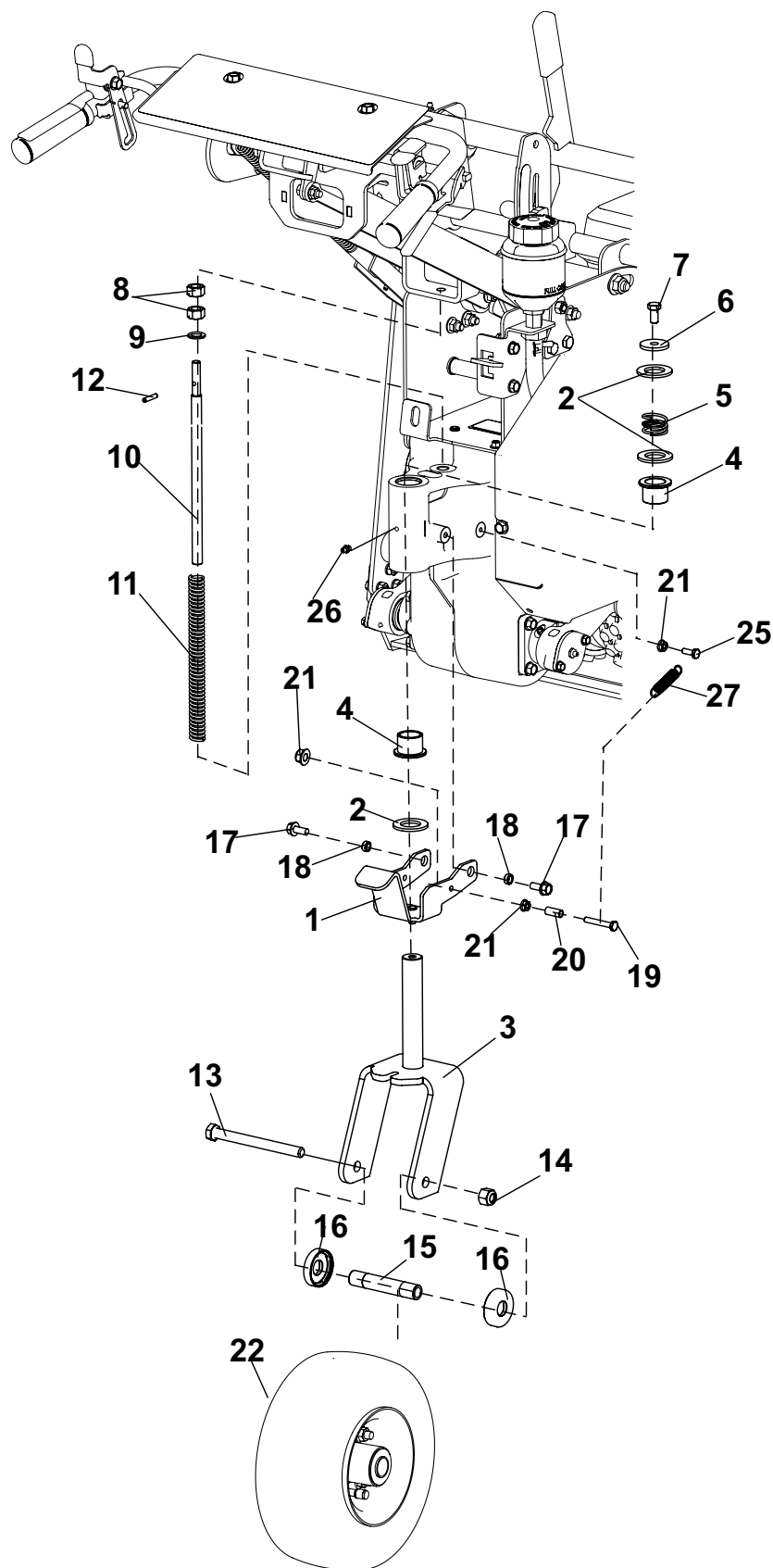
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	138058-11	HOSE-BULK.50IDX.84OD	1	34	4177026	ARM-HYDRO CONTROL	1
2	158058-06	FTG -06 MORB X 1/2 HOSE 90	1	35	819337	BUSHING	3
3	4168619	ASSY-EXPANSION TANK	1	36	64163-55	WSHR .328X.75X14 GA	2
4	4142808-01	CAP-HYDRO TANK	1	37	64262-008	BLT-FLG HD 5/16-18 X 1-1/4	1
5	4177611	FTG-6 FORB X -8 HOSE ADAPT	1	38	4177664	WLDMT-BASE FRONT BELT GUARD	1
6	64001-1	NUT-HEX JAM 5/8-18	1	39	64209-19	WSHR-CON SPRING .312 X 1.063	1
7	88042-05	CLAMP-HOSE 13/16	2	40	64123-263	BLT-HEX 5/16-24X2 GR 8	1
8	4177488	HYDRO-GEAR #BDU-10S-127	1	41	64163-29	WSHR-21/64 X 1 X 11GA	1
9	4178207	S-BRKT,BYPASS	1	42	64268-02	NUT-FL NYLON LOCK 5/16-18	1
10	64287-004	BLT-HEX 5/16-18X4-1/4 W/SLNT	2	43	64018-63	BLT-CRG 5/16-18X1	1
11	64197-001	BLT-TDFM 5/16-18X3/4	6	44	43-004LA	ROD END 1/4 ALL STEEL LH	1
12	4175390	FTG-5/8MORB X 3/8FORB	1	45	43-004A	ROD END 1/4IN (ALL STEEL)	1
13	4177499.7	PLATE-HYDRO NEUTRAL	1	46	4176954	ROD-CONTROL	1
14	4177501.2	BRKT-NEUTRAL	1	47	64025-45	NUT-HEX 1/4-28 LH	1
15	4177747	SHEAVE-PUMP	1	48	64025-23	NUT-HEX 1/4-28	1
16	4177675	FAN-CW 7 INCH	1	49	64221-05	E-RING .500	2
17	4177811	HUB-FAN	1	50	64163-98	WSHR-.515X.875X14GA	2
18	4177016	PULLEY-DOUBLE	1	51	4177836.7	PLT-BEARING MOUNT	1
19	64044-2	SCREW-SET 5/16-18X3/8	2	52	4177581-01	BRG-FL SPLIT .50 X .375 LG	2
20	4177487	BELT-A SEC PUMP DRIVE	1	53	4177584.7	BAR-HYDRO CONTROL	1
21	4177125.7	LEVER-BYPASS	1	54	4177498	WLDMT-CONTROL SHAFT	1
22	64268-02	NUT-FL NYLON LOCK 5/16-18	1	55	158061-33	O-RING 4MM X 39 MM ID	1
23	C400249	CLUTCH ARM SCHV	1	56	64238-03	KEY-METRIC 5MM SQ X 28MM	1
24	4177153.7	SPACER-CONTROL	1	57	4177863	SPRING-COMPRESSION .66 X .63	1
25	4176957	LEVER-SPRING	2	58	64262-007	BLT-FLG HD 5/16-18 X 1	1
26	4176956	BRG-BRONZE FL .25X.38X.50 LG	1	59	64262-018	BLT-FLG HD 3/8-16 X 1-3/4	1
27	4177176	SPRING-EXTENSION .069ODX2	1	60	2228016	PULLEY-IDLER PUMP	1
28	4177158	BRG-THRUST BRONZE .385 X .625	3	61	64163-31	WSHR 25/64X1X12	1
29	64268-01	NUT-FL NYLON LOCK 1/4-20	5	62	64018-31	BLT-CRG 3/8-16 X 2-1/2	1
30	64229-02	NUT-NYLON LOCK 5/16-18	1	63	64268-03	BLT-FLG HD 1/2-13 X 2-1/2	2
31	64123-114	BLT-HEX 1/4-20X1	1	64	4177889	BUSHING-PIVOT	1
32	64123-68	BLT-HEX 5/16-18X1	1	65	4170042.7	WLDMT-IDLER	1
33	64044-12	SCREW-SET 5/16-24X3/8	1	66	85010N	ZERK 1/4-28 STR SELF TAP	1

*NOT ILLUSTRATED

WHEEL & HANDLE SUPPORT ASSEMBLY

FIGURE 8

HYDRO JR SOD CUTTER



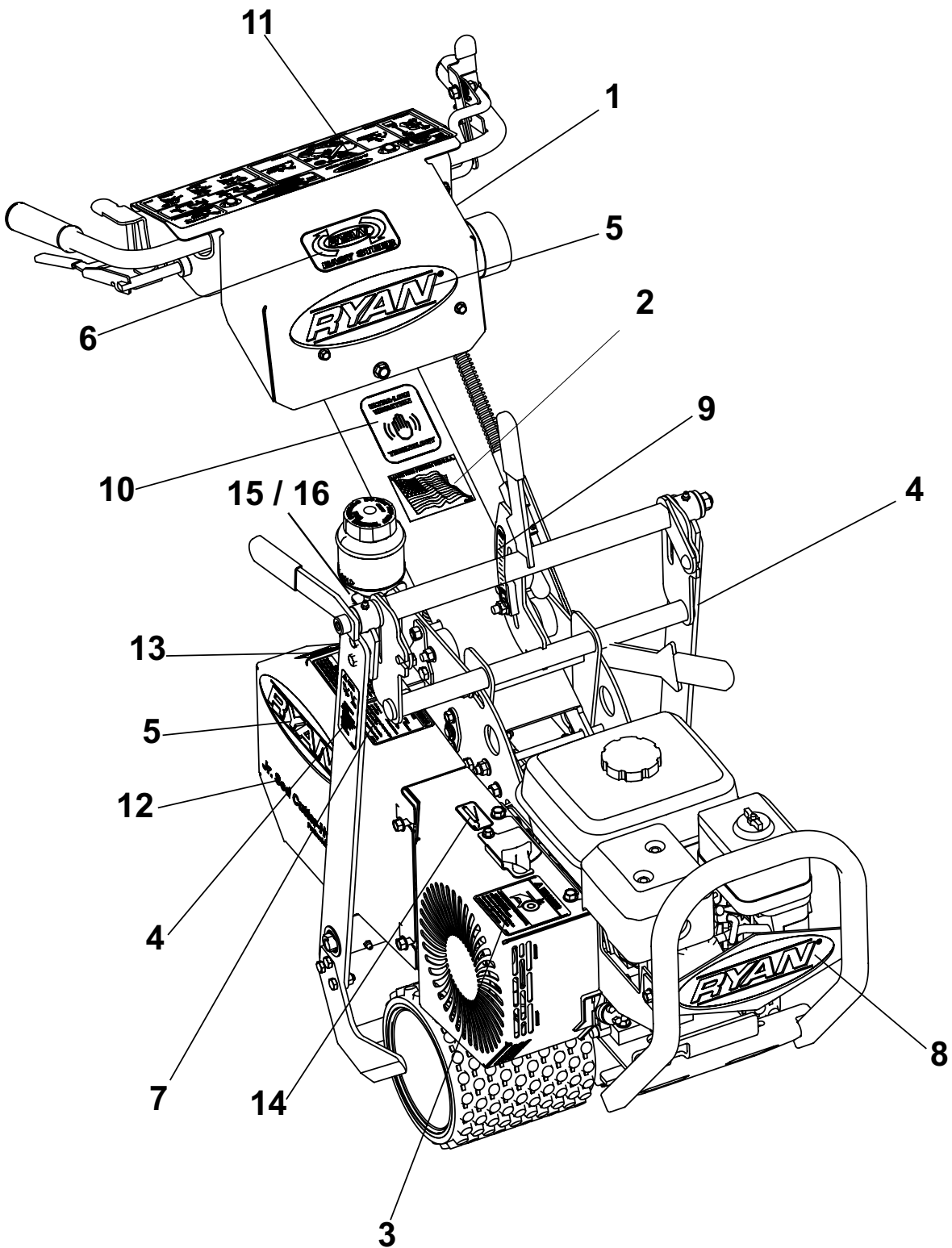
WHEEL & HANDLE SUPPORT ASSEMBLY

HYDRO JR SOD CUTTER

FIGURE 8

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4177613.7	WLDMT-CASTER LATCH	1				
2	64163-84	WSHR-1.015 X 1.75 X.125	3				
3	4177457.7	WLDMT-YOKE HYDRO	1				
4	4129801	BUSHING-FLANGED SINTERED IRON	2				
5	4164551	SPRING-COMP, 1.06 X1.28 X1.0	1				
6	64163-53	WSHR .391X1.50X9GA	1				
7	64123-15	BLT-HEX 3/8-16X3/4	1				
8	64025-19	BLT-METRIC M12-1.25X35	2				
9	64163-98	WSHR-.515X.875X14GA	1				
10	4177771	ROD-HANDLE SUPPORT	1				
11	4164606	SPRING-COMP, 8.6X.78X.118	1				
12	64176-11	PIN-COILED SPRING 3/16X1	1				
13	64123-166	BLT-HEX 1/2-13X5-1/2	1				
14	64229-05	NUT-NYLON LOCK 1/2-13	1				
15	2722230-04	SPANNER	1				
16	2722591	SPACER-3/4 INCH BEARING	2				
17	64262-006	BLT-FLG HD 5/16-18 X 3/4	2				
18	517226	BRG SLV .33 .50 .20 SNTR IRON	2				
19	64123-283	BLT-HEX 1/4-20X1-3/4	1				
20	820529	SPACER (PLATING)	1				
21	64141-2	NUT-WLF 1/4-20	3				
22	2722681	ASSY-WHEEL 9X3.50-4	1				
		INCLUDES ITEMS 23, 24					
23	38504	S TIRE-9x3.50-4 SMOOTH	1				
24	38505	S TUBE-9x3.50-4	1				
25	64123-89	BLT-HEX 1/4-20X3/4	1				
26	85010N	ZERK 1/4-28 STR SELF TAP	1				
27	4164627	SPRING-EXT, .5 X 2.25 X .055	1				

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HYDRO
JR SOD CUTTER

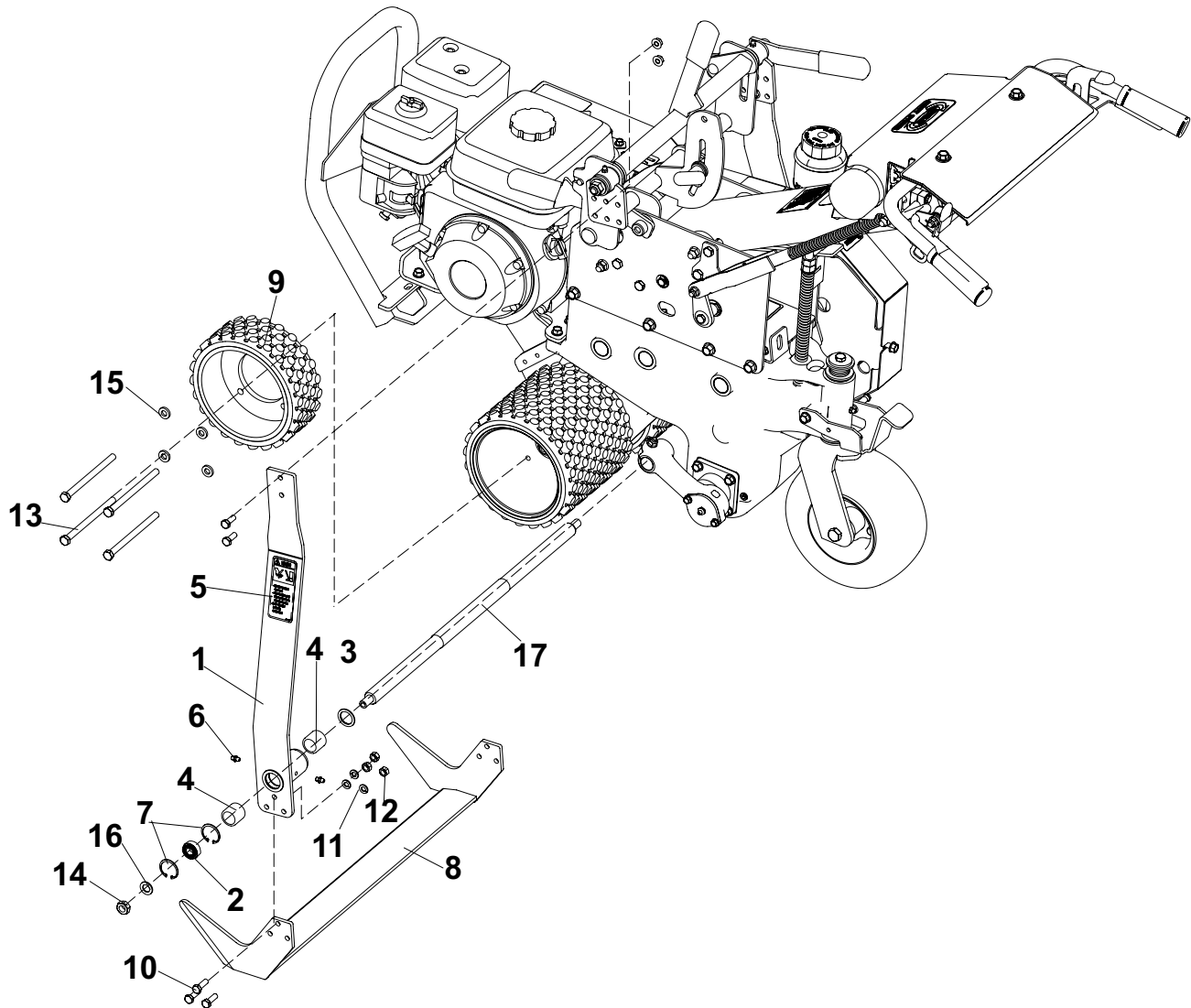
FIGURE 9

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	2000735	Label OPER MAN	1				
2	4116761	LABEL-MADE IN USA	1				
3	4163592	LABEL-BELTS/SERV	2				
4	4164033	Label CHF VERT	2				
5	4168826	LABEL-RYAN OVAL 9"	2				
6	4171082	LABEL-RYAN EASY STEER, SMALL	1				
7	4175297	LABEL-CAUTION-SPANISH	1				
8	4175971	LABEL-RYAN OVAL 8.5" LEXAN	1				
9	4175983	LABEL-CUT DEPTH	1				
10	4175985	LABEL-VIBRATION	1				
11	4177612	LABEL-INSTRUCTION, JR HYDRO	1				
12	4177922	LABEL-HYDRO JR SOD CUTTER	1				
13	4177926	LABEL-REVERSE LATCH HYDRO	1				
14	4177946	LABEL-GREASE	1				
15	4178102	LABEL-DRIVE	1				
16	4178103	LABEL-BYPASS	1				

24" BLADE KIT (970970)

FIGURE 10

HYDRO JR SOD CUTTER



HYDRO JR SOD CUTTER

FIGURE 10

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4177786.7	WLDMT-SIDE ARM 24 INCLUDES ITEMS 2 - 6	2				
2	521436	BALL BEARING	2				
3	521438	GREASE SEAL	2				
4	548138	BRG NDL.88 1.12 1.00 OPEN END	4				
5	4164033	Label CHF VERT	2				
6	85010N	ZERK 1/4-28 STR SELF TAP	4				
7	64144-42	RING-RET 1.125 INT INV	4				
9	4177951	ASSM-WHEEL EXTENSION	2				
8	4178003-24.7	BLADE-SOD CUTTER 24	1				
10	515011	SCRW .31-24 1.00 ZS HX G8	6				
11	64006-02	LOCKWSHR-5/16 HELICAL	6				
12	64025-03	NUT-HEX 5/16-24	6				
13	64123-130	BLT-HEX 3/8-16X5-1/2	8				
14	64151-33	NUT-HEX 1/2-20 TOP LOCK JAM	2				
15	64163-107	WSHR-.391 X .75 X 10GA	8				
16	64163-98	WSHR-.515X.875X14GA	2				
17	4177790	SHAFT-LOWER 24	1				

SCHILLER GROUNDS CARE, INC.
ONE BOB-CAT LANE
P.O. BOX 469
JOHNSON CREEK, WI 53038
920-699-2000
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