



Parts & Service



MODELS:

544844E JR. SODCUTTER, BRIGGS 12" **544845E** JR. SODCUTTER, BRIGGS 18"

544944A JR. SODCUTTER, HONDA 12"

544945A JR. SODCUTTER, HONDA 18"



PARTS MANUA

MAN 4163211 Rev. A 10-2007

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.

Californie Proposition 65 Avertissement

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

A WARNING

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

A AVERTISSEMENT

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

California Advertencia de la Proposicion 65

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

A 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.

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.

IMPORTANT MESSAGE

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

This machine comes with an Operation and Safety Manual and a separate Parts and Maintenance Manual. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand these manuals. 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 CGC, 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 CGC, Inc. dealer for any service or parts needed. CGC, Inc. service ensures that you continue to receive the best results possible from CGC, Inc. products. You can trust CGC, Inc. replacement parts because they are manufactured with the same high precision and quality as the original parts.

CGC, 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.

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



NOTICE !!!

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

Commercial 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 CGC, Inc.'s Engineering Department. Any CGC, 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 CGC, Inc.–will result in the CGC, 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 CGC, Inc. will be considered the responsibility of the individual(s) or company designing and/or making such changes. CGC, 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 CGC, Inc. machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

A DANGER

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

A WARNING

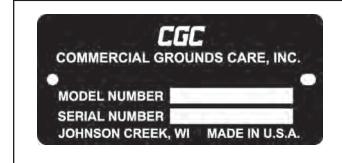
WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

A CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **MAY** 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.



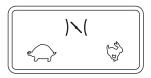
MODEL NUMBER: This number appears on sales literature, technical manuals and price lists.

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



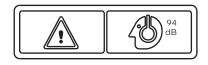
009034910

This decal instructs the operator to read and understand the Operation & Safety manual. To prevent injury, they must be familiar with the operation of this product and be fully aware of safe operating procedures.



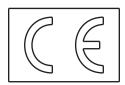
524481

The throttle control decal uses the turtle to represent slower engine speeds, the rabbit represents faster engine speeds.



524538

This decal informs the operator that hearing protection should be worn if operating the Jr. Sodcutter for extended periods of time (longer than four hours).



009039290

This decal indicates the unit is certified for use for the European community.

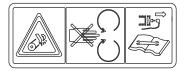


524541

The top symbol shows fingers or hands being cut or severed. **DO NOT** place hands or fingers under Jr. Sodcutter while operating the unit.

The middle symbol shows toes or feet being cut or severed. **DO NOT** place feet or toes under Jr. Sodcutter while operating the unit.

The lower symbol informs the operator and/or bystanders to keep a safe distance away from machinery. If you do not keep hands and feet a safe distance from the machinery, personal injury could occur.



840697

The left symbol shows the possible result of working on the machinery with safety shields removed. Hands and fingers may become entangled in belts. **DO NOT** operate the unit without safety shields in place.

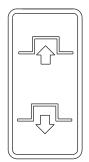
The middle symbol warns the operator and/or bystanders to keep hands out of moving components.

The right symbol instructs the operator to read the service section of the operators manual. Disable the engine (disconnect spark plug wire) before performing any service or maintenance on the unit.

5)

524486

This decal shows the direction of lever movement used to engage the drive wheels of the Jr. Sodcutter. Movement in the opposite direction will stop the drive wheels.



524480

This decal shows the direction of lever movement used to engage the drive belt of the Jr. Sodcutter. Push the lever forward to engage the drive belt. Pull the lever rearward to disengage the drive belt.



524485

This decal shows the direction of lever movement used to engage the cutter blade of the Jr. Sodcutter. Movement in the opposite direction will stop the cutter blade.

	OPERATING INSTRUCTIONS					
HARD SOIL OPERATION:	BLADE ADJUSTMENTS					
	OCKING LEVER (BLACK HANDLE RIGHT SIDE "H" FRAME). PUSH "H" FRAME FORWARD AS REQUIRED AND					
DEPTH OF CUT: 1. LOOSEN UPPER RIGHT HAND LOCKING POSITION BY ROTATING LOCKING LEVE	LEVER. TIP MACHINE FORWARD AND MOVE CENTER DEPTH CONTROL LEVER TO DESIRED DEPTH. LOCK IN R CLOCKWISE.					
2. LOOSEN DEPTH STOP LOCKING LEVER AT CENTER OF "H" FRAME. RAISE DEPTH STOP UNTIL IT CONTACTS DEPTH CONTROL LEVER AND LOCK IN PLACE.						
3. ADJUST BLADE TO CUT SOD 3/4 TO 1 II						
TO MOVE WITHOUT POWER: DISENGAGE DRIVE WHEEL SHIFTER LEVE	R (ON FRONT-RIGHT SIDE OF MACHINE) BY ROTATING DOWNWARD.					
TO MOVE MACHINE UNDER POWER: 1. DISENGAGE CUTTING BLADE SHIFTER	LEVER (ON FRONT-RIGHT SIDE OF MACHINE) BY ROTATING DOWNWARD.					
2. ENGAGE DRIVE WHEEL SHIFTER LEVEL	(ON FRONT-RIGHT SIDE OF MACHINE) BY ROTATING UPWARD.					
 WITH ENGINE RUNNING, HOLD OPERAT POSITION. 	OR PRESENT LEVER AGAINST HANDLEBAR AND PUSH CLUTCH LEVER FORWARD TO THE ENGAGED					
	STARTING ENGINE					
1. FILL FUEL TANK WITH REGULAR GASO						
2. PULL CLUTCH LEVER BACK TO DISENCE						
 SET THROTTLE TO 1/2 OPEN POSITION SET CHOKE AND START ENGINE. 	AND MOVE STOP SWITCH TO "ON" POSITION.					
4. del onore and oract endine.	SOD CUTTING INSTRUCTIONS					
1. MAKE REQUIRED BLADE ADJUSTMENT						
2. START ENGINE PER INSTRUCTIONS AB						
	SHETER I EVER ON FROM FROM TRIDE OF MACHINE UPWARD					
	SHIFTER LEVER ON REAR RIGHT SIDE OF MACHINE UPWARD.					
	RONT BUMPER AND OPERATOR PRESENT LEVER HELD AGAINST HANDLEBAR, PUSH CLUTCH LEVER THE MACHINE SO BLADE ENTERS THE GROUND.					
	ON CLUTCH LEVER, THIS APPLIES A BRAKE.					
7. STOP ENGINE BY MOVING STOP SWITC	H TO "OFF" POSITION.					

524487

This decal shows the operating instructions for the Jr. Sodcutter.

CONTROLS

Jr. Sodcutter

JR SODCUTTER CONTROLS

Clutch Control Lever - A

Engages or releases drive belt and applies brake action to drive belt when pulled FIRMLY to rear.

Throttle Control - B Speeds up or slows down the engine.

Engine Switch

Turn to "ON" position to start engine. Turn to "OFF" position to stop engine.

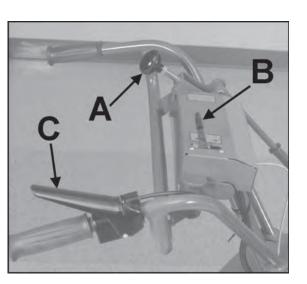
Operator Presence Control - C With clutch control engaged, engine will stop if operator presence lever is not depressed.

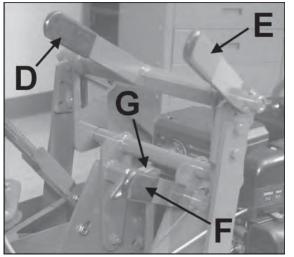
Blade Depth Control Lever - D Raises or lowers cutting blade.

Blade Angle Locking Lever - E Adjusts cutting angle of blade.

Blade Depth Control Locking Lever - F Locking lever holds blade depth control in desired position.

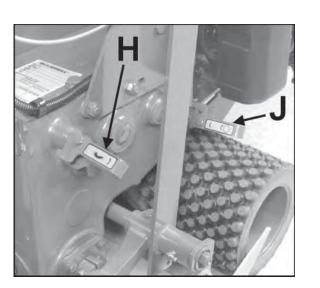
Depth Gauge - G Allows resetting of blade depth to the previous cutting height.

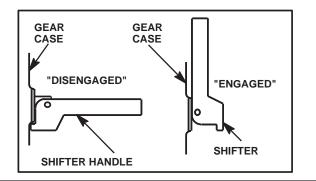




JR SODCUTTER CONTROLS

Blade (H) and Wheel (J) Shifter Handles : Engage or disengage blade for cutting and gears for driving Sodcutter.





MOVING THE JR SODCUTTER

To move unit without running blade :

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

To move unit without running engine :

1. Put drive shifter handle and clutch control lever in "Disengaged" position.

To transport the unit :

1. When transporting unit on trailer or truck, shut fuel valve "OFF" beneath fuel tank.

PRE-OPERATION CHECK

- Visually check all moving parts and all fasteners. If loose or broken, tighten or replace. Check belt for fraying, wear and proper adjustment (see SERVICE section).
- 2. Lubricate all lubrication fittings before each days use or after every eight hours of operation (see SERVICE section).
- 3. Check the engine crankcase oil level with the engine resting in a level position. Add oil if necessary.
- 4. Check the gear case oil level. Add oil if necessary.
- 5. Check the air filter. Replace if necessary.
- 6. Sharpen cutting blade (see SERVICE section).
- 7. Follow the engine manufacturer's recommendations for the correct type and amount of oil. Fill the fuel tank according to the engine manufacturer's specifications.

A WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks when refueling. **BE SURE** to install fuel cap after refueling. 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.

Refuel equipment on the ground. If equipment must be fueled on a 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.

NEVER start or run the engine inside where exhaust fumes can collect. Carbon monoxide present in the exhaust is an odorless and deadly gas.

DO NOT operate equipment without shields in place. **DO NOT** make adjustments or perform any maintenance while the engine is running.

Before operating, check the area and remove any object which may present a safety hazard or damage the equipment.



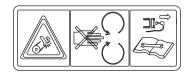
A WARNING

When replacement parts are required, use genuine **CGC**, **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.

When replacing engine, be sure to replace sound level warning decal (Part No. 524538).

Any warning decal that becomes illegible should be replaced immediately.



STOP engine and disconnect spark plug wire before servicing or making adjustments to unit. The preceding decal shows what could happen if the engine is not stopped or disabled before removing safety covers. Hands may become entangled in moving belts, gears, chains or other parts.

Use adequate lifting device (i.e., hoist, fork lift, etc.) to raise unit.

Use adequate supports when unit is raised for servicing.

Wear protective eye equipment when using hammers, chisels and punches.

BLADE SHARPENING

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

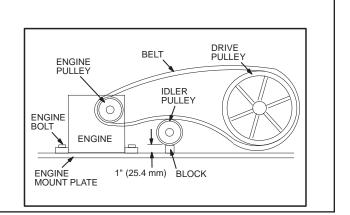
BOTTOM BLADE FILE DIRECTION 15° THIS SURFACE 1/16" SMOOTH Maximum (No Burrs) SIDE BLADE THIS SURFACE SMOOTH (No Burrs) 1/16" MAX 0 FILE 0 0 DIRECTION MILLED EDGE FILE DIRECTION

DRIVE BELT ADJUSTMENT

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

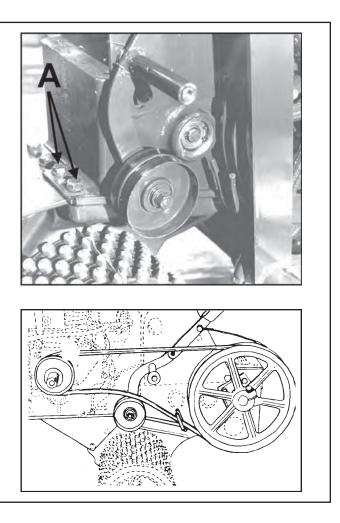
Belt tension is adjusted by loosening four (4) engine mounting bolts and shifting engine on the base.

The belt should be taut when the clutch lever is pushed forward (engaged) and the idler wheel is 1" (25.4 mm) from the engine mount plate.



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. Install new belt in reverse procedure. Route the belt as shown.

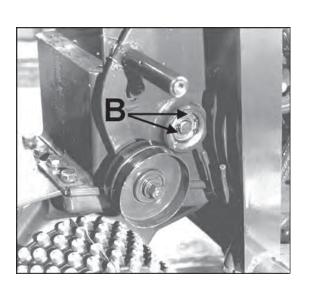


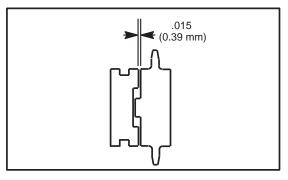
DR	RIVE CHAIN REMOVAL		
1.	Raise unit, place on adequate supports and remove belt guard.	6.	Using a screwdriver, lift cover to break sealant bond and remove cover.
2.	Remove four (4) screws securing cover.	7.	Drain oil out of front cavity on case, and turn drive wheels until master link is on top of sprocket.
3.	Remove throttle cable from engine and lay behind cam case.	8.	Remove master link and continue rotating drive wheels until chain is off bottom sprocket.
4.	Remove dipstick from cover.		
5.	Remove screw, flat washer, nut and bushing from right lower side of "H" frame.	9.	Install new chain in reverse procedure. Clean mating surfaces on case and cover. Apply 3M Scotch Grip 847 or an equivalent adhesive to 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,	 Rotate pulley shaft until master link is to front of top sprocket. Remove master link. Rotate blade drive shaft until chain is free.
cardboard, etc.	4. Rotate blade drive shalt until chain is free.
1. Follow steps 1 thru 6 in drive chain removal.	 Install new chain in reverse procedure. Use 3M Scotch Grip 847 or an equivalent adhesive on
 Remove bottom screw on bearing cage to drain oil from rear cavity. 	case cover and bearing retainer screw.

UPPER DRIVE SPROCKET & SHAFT

- 1. Remove drive chain according to 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.



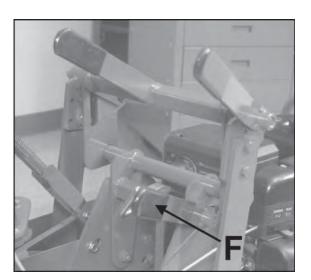


DRIVE WHEEL CHAIN SPROCKET SHAFT 1. Follow steps 1 thru 7 in drive chain removal 5. Install axle nut on end of shaft, opposite the side section. of snap ring previously removed. 2. Remove master link and remove chain from top 6. Using a soft hammer (lead, brass, etc.), drive shaft out of case. Sprocket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

ADJUSTING BLADE ANGLE

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

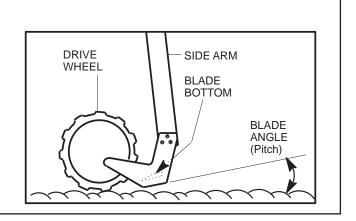




Jr. Sodcutter

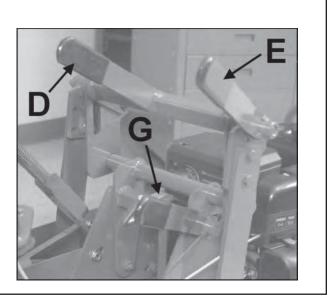
BLADE ANGLE (PITCH)

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 downward (see Adjusting Blade Angle above). A short trial run will indicate which is the best blade angle.



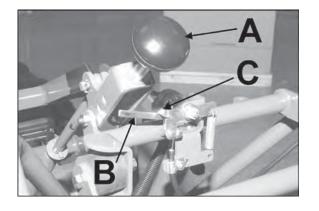
ADJUSTING DEPTH OF CUT

- 1. Make a trial run in turf. Set depth to cut approximately 3/4" of soil.
- Loosen depth gauge handle. Adjust depth gauge G to contact bottom on depth control lever D.
- Loosen depth control locking lever E and lower depth control D until it rests on depth gauge G.
- 4. Tighten depth control locking lever E.
- **NOTE:** Numbers on depth gauge do not necessarily represent thickness of sod being cut.



ADJUSTING OPERATOR PRESENCE CONTROL

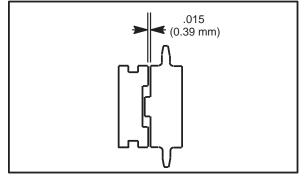
- 1. To adjust operator presence cable, pull clutch control handle **A** rearward as far as possible.
- 2. Press operator presence handle (right handlebar) down as far as possible.
- Adjust cable until the pivot arm C contacts the arm extending from the operator presence switch B.
- 4. Tighten cable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



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.
- 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.



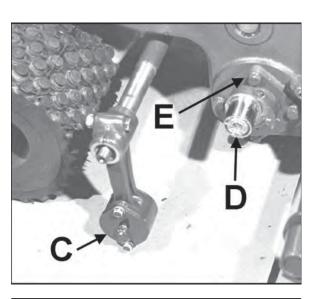


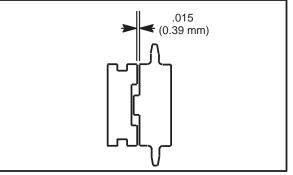
BLADE SPROCKET SHAFT

- 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.

NOTE: End play on shaft must not exceed .005 (.127 mm) clearance and should rotate freely when bearing cages are tightened.

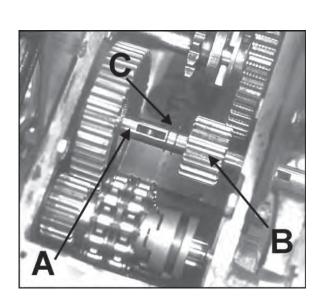
- 8. Assemble in reverse procedure. After blade shifter assembly is installed, adjust dog clutch to provide .015" (0.39 mm) clearance between clutch faces, as shown.
- 9. Apply 3M Scotch Grip 847 adhesive or equivalent to gear case cover before installation.





IDLER GEAR SHAFT

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



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

LUBRICATION

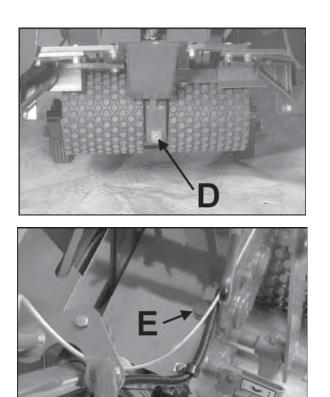
The gear case is initially filled with 3 1/2 pints (1.7 L) of EP 140 Gear Lube. Do not add to this amount unless oil is changed or lost through leakage. Gear case drain plug **D**.

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.



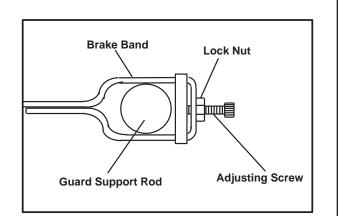
BRAKE BAND REPLACEMENT AND ADJUSTMENT

- 1. Remove belt guard.
- 2. Remove old brake band from Jr. Sodcutter. 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. Activate the brake lever and tighten the adjustment screw until the brake band is pulled snug against the belt. 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.





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STORAGE INSTRUCTIONS	
A WARNING To prevent possible explosion or ignition of vaporized fuel, do not store equipment with fuel	2. Start engine and run until all fuel is used from the carburetor float bowl.
in tank or carburetor in enclosure with open flame (for example, a furnace or water heater pilot light).	 While engine is warm, drain the crankcase oil and replace with the proper weight of oil corresponding to the season when the equipment will next be used.
Daily Storage	
1. Check engine oil level and air filter element daily.	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.
2. Check oil level in gear case.	
3. Close fuel valve at bottom of fuel tank.	5. Lubricate all lubrication fittings.
	6. Clean and oil cutting blade to prevent rust.
4. Clean cutting blade (grass, dirt, etc.).	
EXTENDED STORAGE	To put equipment into operation after an extended storage:
Before the equipment is put into storage for any period exceeding 30 days, the following steps	1. Fill fuel tank with clean fresh fuel.
should be taken:	2. Check crankcase oil level, and start engine.
 Drain all fuel from fuel tank and lines (use a hose or fuel line, routed from fuel tank shut-off to proper container). 	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.	A. Blade should be sharpened or replaced. See page 8.
ground.	B. Blade angle is not properly set.	B. Adjust blade angle. See page12.
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.
D K	A. Wrong type of belt construction.	A. Use only the special Ryan factory belt.
Belt jumps off.	B. Too much slack when belt tightener is disengaged.	B. Slide engine forward and readjust control rod.
Locking levers not	A. Thread wear on locking nut.	A. Replace locking nut.
tight when pulled to limit of travel.	B. Locking nut not properly adjusted.	B. Tighten locking nut on opposite end of tie rod.
Belt grabs in pulleys	A. Belt is old and frayed, or is not the type sent out with the unit.	A. Belt should be replaced with factory construction belt, designed for belt tightener clutches.
and unit creeps when clutch is not engaged.	B. Rust or paint in pulley grooves.	B. Clean and polish pulleys.
	C. Engine set too far forward.	C. Move engine back.
ldler does not engage belt when clutch lever is moved forward.	A. Brake band is not attached to clutch link or is broken.	A. Reattach upper end of brake band to clutch link or replace brake band.



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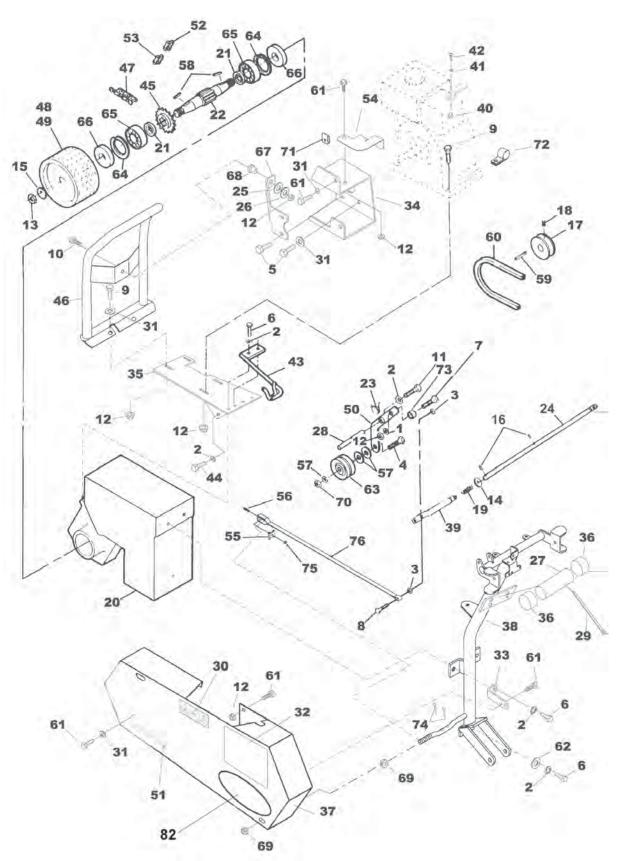
Models: 544844E, 544845E	Models: 544944A, 544945A
Engine	Engine
Model #12H332, Type 0115, Trim B8	Model #GX160-K1QX2, GX160 OHV
4 cycle 6.5 H.P. B&S Vanguard 12.5 cu. in. (205 cc)	4 cycle 5.5 H.P. Honda 9.9 cu. in. (163 cc)
StarterRecoil	StarterRecoil
Governor	Governor
Clutch spring loaded belt tightener type	Clutch spring loaded belt tightener type
Spring loaded beit tightener type	Spring loaded beit lightener type
Noise Level	Noise Level
Sound pressure level 88dB(A)(pressure based)	Sound pressure level 92dB(A)(pressure based)
Sound power level 99dB(A)(power based)	Sound power level 105dB(A)(power based)
Vibration	Vibration
Handlebar vibration level (in Z-axis) 29.4 M/S ²	Handlebar vibration level (in Z-axis) 32.4 M/S ²
Reduction	Reduction
Engine to blade 2.94:1	Engine to blade 2.94:1
Engine to drive wheels	Engine to drive wheels 55.8:1
Wheels:	Wheels:
Drive 8" (203 mm) Dia. w/knobby	Drive 8" (203 mm) Dia. w/knobby
tread vulcanized to hub	tread vulcanized to hub
Rear8 x 1.75 semi-pneumatic tires	Rear8 x 1.75 semi-pneumatic tires
with pre-packed ball bearings	with pre-packed ball bearings
Drive:	Drive:
Engine to gear case "A" section belt	Engine to gear case "A" section belt
Gear case roller chain	Gear case roller chain
Gear case:	Gear case:
Lubrication EP140 Gear lube	Lubrication EP140 Gear lube
Capacity	Capacity
Cutting width:	Cutting width:
544844E 11 3/4" (298 mm)	544944A 11 3/4" (298 mm)
544845E 18" (457 mm)	544945A 18" (457 mm)
Blade pitch:	Blade pitch:
Hand lever adjustment variable 0° to 9°	Hand lever adjustment variable 0° to 9°
Blade speed:1225 oscillations/min @ 3600 RPM	Blade speed:1225 oscillations/min @ 3600 RPM
Dimensions:	Dimensions:
Width	Width
Length	Length
mm)	mm)
Height	Height
Wheelbase 19" (483 mm)	Wheelbase 19" (483 mm)
Weight (544844E)	Weight (544944A)
Weight (544845E)	Weight (544944A)
(140.3 Ky)	woight (07707)
Standards: Conforms to European Community	Standards: Conforms to European Community
(EC) standard 89/392 and	(EC) standard 89/392 and
amendments 91/368 and 93/44.	amendments 91/368 and 93/44.
CARB, EPA	CARB, EPA



PARTS SECTION

DRIVE ASSEMBLY AND SIDE COVER

FIGURE 1



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DRIVE ASSEMBLY AND SIDE COVER

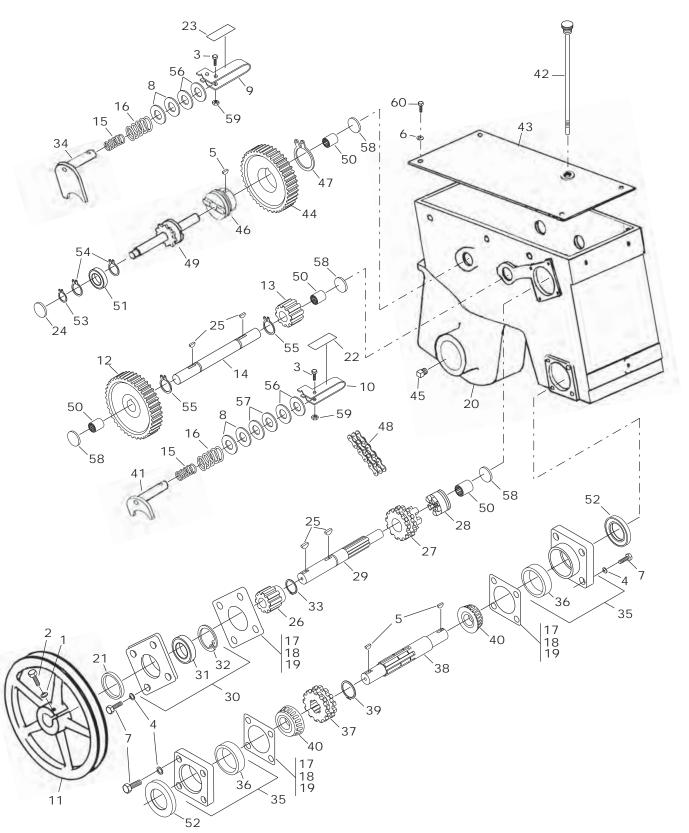
Jr. Sodcutter

FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1-1	103867	WSHR,.31.69.06 YS FLT	1	1-46	540244.2	GUARD AY, FRONT	1
1-2	64006-05	LOCKWSHR-HELICAL 1/2	13	1-47	547398	CHAIN AY,#50 RLR	1
1-3	F1002	NUT, JAM 1/4-20 UNC ZP	2	1-48	547408.7	WHEEL AY 12"	2
1-4	64123-67	BLT-HEX 3/8-16X2	1		(USED ON 5	44844E & 544944A)	
1-5	64139-01	BLT-WLF 5/16-24X3/4	4				
1-6	64123-50	BOLT-HEX 3/8-16X1	12	1-49	547424.7	WHEEL AY 18"	2
1-7	64123-68	BOLT-HEX 5/16-18X1	5		(USED ON 5	44845E & 544945A)	
1-8	306418	SCRW, 25-20 1.125 YS HX	1				
1-9	64139-23	BLT-WLF 5/16-18 X 1-3/4	4	1-50	547428.7	IDLER ARM AY	1
1-10	548902	SCRW,.31-18 1.00 YS HSF	1	1-51	4161125	LABEL-RYAN	1
1-11	64123-15	BOLT-3/8-16X3/4 HEX	1	1-52	548480	HALF LINK	A/R
1-12	64141-6	NUT, 5/16-18	4	1-53	4117675	LINK AY, #50 CONNECT	A/R
1-13	307665	NUT,.75-16 YS HX JAM	2	1-54	524610.7	BRACKET,BELT GUIDE	1
1-14	64163-67	WASHER516X1X12GA	2	1-55	524574	NUT, BRAKE BAND	1
1-15	309799	LWSHR,.75 ZS SHKPRF EX	〈 2	1-56	800888	SCRW,#10-32 1.00 BS NE	1
1-16	316938	PIN, SPIROL. 188 1.000 PS	2		(ITEMS 55, 5	56, 75 & 76 ARE AVAILABLE	
1-17	517137	PULLEY,4" DIA "A" SIZE	1		IN BRAKE B	AND KIT 540274)	
1-18	64044-18	SCREW-SET 5/16-18 x 5/16	62				
1-19	518535.7	SPRING	1	1-57	306981	WSHR,.41 .81 .06 YS FLA	Г 6
1-20	520671.7	GEARCASE	1	1-58	64164-10	1/4X1/4X1-1/4 MACH KEY	2
1-21	520722	SPACER	2	1-59	64164-12	KEY-1/4X1/4X1 SQ END	1
1-22	520723	SHAFT	1	1-60	524582	BELT, V A SECT. 66" LONG	i 1
1-23	520785	SPRING	1	1-61	64139-06	BLT-WLH 5/16-18X5/8	6
1-24	521062.7	ROD	1	1-62	548164	WSHR,.41.81.07 YS FLT	1
1-25	838496	WASHER,.25 1.00.125 FLA	T 1	1-63	548942	PULLEY, PLAIN IDLER 3.2	5" 1
1-26	64163-29	WASHER-21/64 X 1 X 11GA	A 1	1-64	548952	RING, INTRNL RETAINING	32
1-27	38541	TUBE, DOCUMENT 2.75OD	1	1-65	548953	BRG,BALL 1.38 2.83.67	2
1-28	521087	SHAFT	1	1-66	548954	SEAL,OIL 1.38 SHAFT	2
1-29	65286-5A	TIE-CABLE 14 1\2	2	1-67	524773.2	BRACE, GUARD	1
1-30	840697	DECAL, WARNING HANDS	1	1-68	2702464	BUSHING, ISOLATION	1
1-31	64163-55	WASHER .328X.75X14 GA	5	1-69	64141-13	NUT WLF 1/2-13	2
1-32	4124337	DECAL, INFORMATION	1	1-70	800698	NUT,38-16 HX FLG CRWN	5
1-33	520773.7	BRACKET	1	1-71	800889	NUT,.31-18 SPD J W/NUT	2
1-34	524436.7	BRACKET, BELT GUARD	1	1-72	48228A	CABLE CLIP-INSULATED	3
1-35	524473.2	PLATE, ENGINE MOUNT	1		819337	BUSHING	1
1-36	38061A	CAP, VINYL	2	1-74	306956	COTTER PIN	2
1-37	4163353	S-GUARD ASSY	1	1-75	64025-14	NUT-HEX #10-32	1
1-38	540212.7	HANDLEBAR AY, MOUNT	1	1-76	524573.7	BAND, BRAKE	1
1-39	545247.7	CLEVIS AY	1	1-77*	524775	FILTER, AIR CLEANER	1
1-40	831888	SWIVEL	1	1-78*	524776	FILTER, AIR PRE-CLEANE	R 1
1-41	831889	WASHER,SWIVEL	1	1-79*	540385	KIT, SPARK ARRESTOR	1
1-42	831890	SCRW,SWIVEL THROTTLE	1		(ITEMS 77-7	9 USED ON BRIGGS &	
(ITEN	IS 40-42 USE	D ON HONDA ENGINES ON	LY)		STRATTON	ENGINES ONLY)	
1-43	545380.2	GUIDE AY, BELT	1	1-80*	524777	FILTER,AIR W/PRE-CLNR	1
1-44	64123-87	BOLT-HEX 3/8-16X1-3/4	2	1-81*	540374	SPARK ARESTOR W/SCR	W 1
1-45	545626	SPROCKET AY	1		(ITEMS 80, 8 ONLY)	31 USED ON HONDA ENGIN	NES
				1-82	4133034	ILABEL-JR SOD CUTTER	1
					* N	OT ILLUSTRATED	

GEAR CASE

FIGURE 2



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GEAR CASE

Jr. Sodcutter

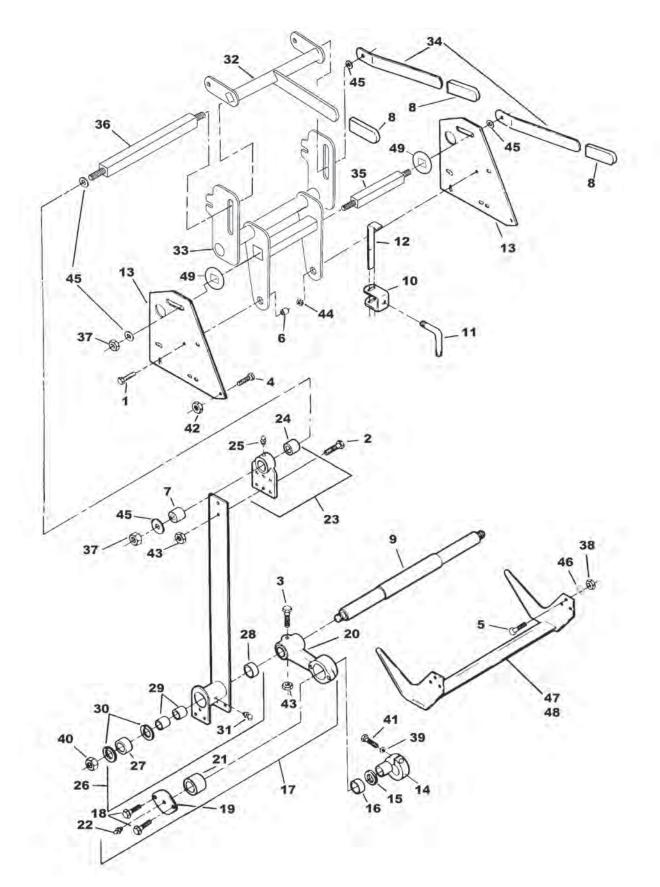
FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
2-1	64006-03	WSHR, 3/8 HELICAL LOC	K 1	2-43	546037.7	COVER AY, GEAR CASE	1
2-2	64123-67	BLT-HEX 3/8-16X2	1	2-44	519404	GEAR,DRIVE	1
2-3	64123-80	BLT-HEX 1/4-20X1-1/4	2		(INCLUDES	ITEMS 45-47)	
2-4	64006-02	LCKWSHER-HELICAL 5/16	5 12		,	,	
2-5	64164-19	KEY WOODRUFF.19X.75 #	93	2-45	548775	PLUG.25-18NPTF HS	1
2-6	64006-01	LOCKWASHER-1/4 HELIC	AL 4	2-46	516222	HUB	1
2-7	64123-68	BOLT-HEX 5/16-18X1	12	2-47	548329	RING, EXT LOCK 1.61ID.06	5T 1
2-8	515891	SHIM,.64 1.25.010 YS	4	2-48	546937	CHAIN, #50 DOUBLE	1
2-9	515896.7	HANDLE-WHEEL SHIFTER	R 1	2-49	547427	SPROCKET & SHAFT AY	1
2-10	515897.7	HANDLE-BLADE SHIFTER	1	2-50	548080	BRG.NDL.75 1.00.75	4
2-11	515901.7	PULLEY	1	2-51	548096	BRG,BALL.59 1.38.43 "SS"	1
	516145	GEAR	1		548272	SEAL,OIL 1.00 SHAFT	2
	516150	GEAR	1		548321	RING, EXT RET. 56ID.037	1
	516156	SHAFT	1		548323	RING, INTRNL RETAINING	
	516194	SPRING	2		548324	RING,EXT RET.691ID	2
	516196	SPRING	2		548477	WASHER	4
	520238	SHIM .005 (.13MM)	A/R		548478	WSHR,.641 1.188.04 YS FI	
	520239	SHIM .010 (.25MM)	A/R		548482	PLUG, EXPANSION 1.25 Y	
	520240	SHIM .020 (.51MM)	A/R		548597	LOCKNUT, UNI-TORQUE	2
	520671.7	GEARCASE	1		548726	SCRW, 25-20.75 YS RS	4
	521941	SPACER, 1.00 1.12.66	1	2 00	540720	001(W,.20 20.70 TO 10	-
	524485	DECAL, BLADE SHIFTER	1				
	524486	DECAL, WHEEL SHIFTER	1				
	548931	PLUG, EXPANSION 1.75 Y					
	64164-28	KEY-#808 WOODRUFF	4				
	516151	GEAR	1				
	516162	SPROCKET, CLUTCH	1				
	516172	CLUTCH	1				
	516173	SHAFT	1				
	544215	CAGE ASSY, BEARING	1				
2-00		TEMS 31, 32)	1				
2-31	548131	BRG,BALL 1.00 2.00.50 "D	Δ" 1				
	548326	RING, INT RET 2.210D.06	1				
	548327	RING-LOCK	1				
	544217.7	SHIFTER AY	1				
	545050	CAGE AY, BEARING	1				
2-00	(INCLUDES I		1				
		T LIVI 50)					
2-36	814474	CUP, TPRD RLR BRG	1				
	516160	SPROCKET	1				
	521253	SHAFT-ECCENTRIC	1				
	548336	LOCK RING (KC)	1				
	814473	CONE, TPRD RLR BRG 1.0	0 2				
	545710	SHAFT AY	1				
	546033.7	DIPSTICK AY	1				
L 7 L	0.00001		'				

SIDE ARMS, PITMAN ARMS AND HANDLES

Jr. Sodcutter

FIGURE 3



SIDE ARMS, PITMAN ARMS AND HANDLES

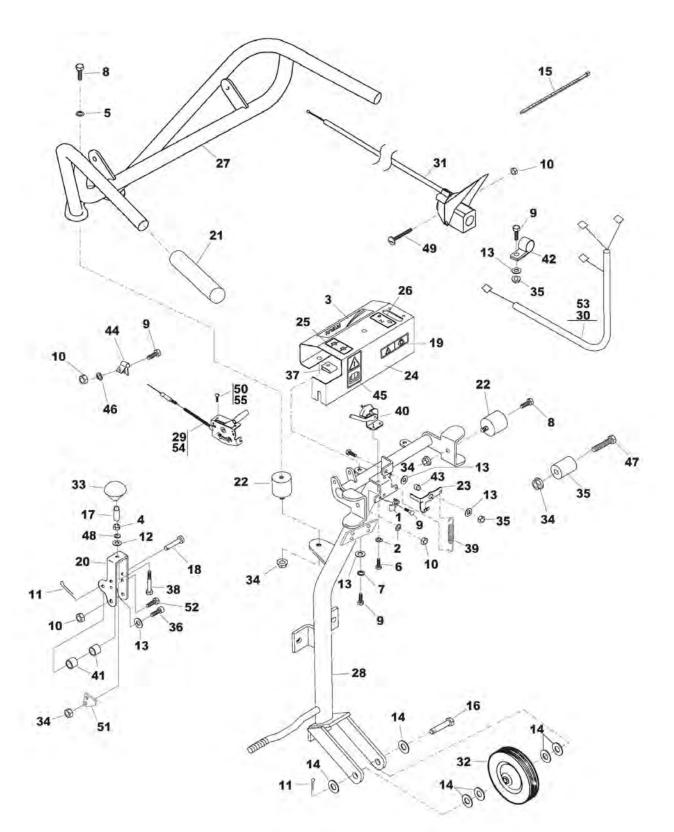
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FIGURE 3

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
3-1	64123-50	BOLT-HEX 3/8-16X1	2	3-39	548183	LWSHR,.31.09 HI-COLLAR	2
3-2	64123-68	BOLT-HEX 5/16-18X1	4	3-40	800198	NUT,.5-20 YS HX CRNLCK	2
3-3	64123-61	BLT-HEX 5/16-18X1-3/4	2	3-41	800513	SCRW-SCKT 5/16-18-1-1/4	2
3-4	328018	SCRW,.44-14 1.12 YS HX	6	3-42	548056	NUT, 44-14 YS HX UNITOR	Q 6
3-5	515011	SCRW,.31-24 1.00 ZS HX	6	3-43	64268-02	NUT-FL NYLN LCK 5/16-18	6
3-6	515729	BUSHING	2	3-44	64268-03	NUT-FL NYLN LCK 3/8-16	5
3-7	516067	BUSH,STL.515X.874X1.015	2	3-45	830287	WSHR,FLAT	6
3-8	4135868	COVER,HANDLE	3	3-46	64006-02	LOCKWSHR-HELICAL 5/16	6
3-9	521435.7	SHAFT, LOWER	1	3-47	546182	BLADE-SOD CUTTER, 12"	1
3-10	521469.7	CLAMP, SADDLE	1		(USED ON M	10DELS 544844E, 544944A)	
3-11	521470	HANDLE,LOCKING	1				
3-12	521471	GAGE, DEPTH (PLATING)	1	3-48	4132717.7		1
3-13	521472.2	BRACKET, PIVOT	2		(USED ON M	10DELS 544845E, 544945A)	
3-14	545436	ECCENTRIC AY	2				
	(INCLUDES I	TEMS 15 & 16)		3-49	4113281	WASHER, SPCL .531 SQ	2
3-15	521424	RING	1				
3-16	548814	RACE, INNER	1				
3-17	545437	ARM AY	2				
	(INCLUDES I	TEMS 18-22)					
3-18	112050	TSCRW,.25-20.62 YS HW	2				
3-19	521425.2	PLATE - COVER	1				
3-20	521427.2	ARM, PITMAN	1				
3-21	521428	BRG,NDL 1.25 1.62 1.06	1				
3-22	548226	FITTING (KC)	1				
3-23	545443.2	BRACKET AY	2				
	(INCLUDES I	TEMS 24, 25					
3-24	521429	BRONZE BEARING	1				
3-25	548224	FITTING, GREASE 1/4 SPCI	_ 1				
3-26	545445.2	ARM AY, SIDE	2				
	(INCLUDES I	TEMS 27-31)					
3-27	521436	BALL BEARING	1				
3-28	521438	GREASE SEAL	1				
3-29	548138	BRG,NDL.88 1.12 1.00	2				
3-30	548340	LOCK RING (KC)	2				
3-31	831405	FTG, GREASE 90D.25-28	1				
3-32	540209.2	LEVER AY	1				
3-33	540210.2	FRAME AY, H	1				
3-34	545449.2	HANDLE AY	2				
3-35	524549.2	ROD, TIE LOWER	1				
3-36	524550.2	ROD, TIE UPPER	1				
3-37	64151-7	LOCKNUT, 1/2-13 HEX	2				
3-38	64025-03	NUT-HEX 5/16-24	6				

HANDLEBAR ASSEMBLY

FIGURE 4



Jr. Sodcutter

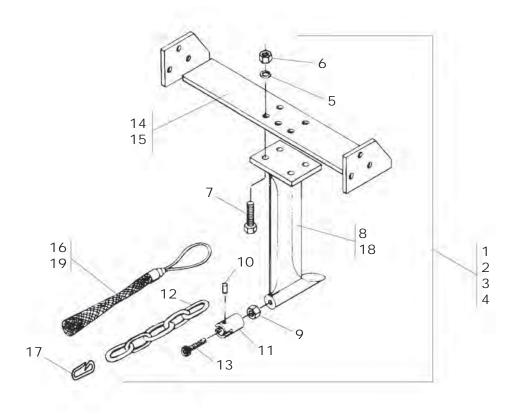
HANDLEBAR ASSEMBLY

Jr. Sodcutter

FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	Υ ΤΩ
4-1	111898	CLAMP,CABLE	1	4-42	48228A	CABLE CLIP-INSULATED	3
4-2	120052	LOCKWASHER	2	4-43	814585	BUSHING	1
4-3	4161125	LABEL-RYAN	1	4-44	515755	CLIP	1
4-4	64025-04	NUT-3/8-24 HEX	1	4-45	009034910	DECAL-WARNING	1
4-5	64006-02	LCKWSHER-HELICAL 5/16	2	4-46	64163-55	WASHER .328X.75X14 GA	1
4-6	306391	SCRW,#10-32.31	2		306464	SCRW,.31-18 2.50 YS HX	3
4-7	64006-01	LCKWSHER-1/4 HELICAL	2			USED TO ATTACH ITEM 35)	•
4-8	548901	SCRW,.31-18.50 YS HSF G			(,	
	64123-89	BOLT-HEX 1/4-20X3/4	8	4-48	64163-61	WSHR .81X.406X16GA	1
	64151-17	LOCKNUT, HEX	4		800896	TSCRW,.190-24.75	1
	64140-1	COTTER PIN-1/8X1	3		819195	TSCRW,#8-18.50 SLF-DRL	2
	64006-03	WSHR, 3/8 HELICAL LOCK		1.00		ONDA MODELS ONLY)	-
	64163-03	WSHR256IDX620DX18G					
	64163-67	WASHER516X1X12GA	. 0	4-51	4135035.7	FLAT-SWITCH ACTIVATION	1
	65286-4A	TIE,CABLE 11-5/8 BLACK	3		64139-06	BOLT-WLH 5/16-18X5/8	2
	515726	SHAFT	1		4163183	HARNESS-JR. SOD B&S	1
	516544	BUSHING (PLATING)	1	4-55		RIGGS MODELS ONLY)	I
		· · · · · · · · · · · · · · · · · · ·			(USED ON B	RIGGS WODELS ONLY)	
	516634	PIN,CLEVIS.38 1.75 YS	1	4 5 4	4400400		
	524538	DECAL, WARNING HEARIN		4-54	4163186	CONTROL-THROTTLE, 43.5) 1
	522585.7	HANDLE,CONTROL	1		(USED ON B	RIGGS MODELS ONLY)	
	522727	GRIP, HANDLE	2				•
	829148	MOUNT, ISOLATION	3	4-55	64152-18	SCR 8-32X3/8 S-TAP	2
	524472	ARM, PIVOT (PLATING)	1		(USED ON B	RIGGS MODELS ONLY)	
	540347	COVER AY	1				
	524480	DECAL, CLUTCH CONTRO					
	524481	DECAL, THROTTLE CNTRL					
	540211.7	HANDLEBAR AY	1				
	540212.7	HANDLEBAR AY, MOUNT	1				
4-29	540326	CONTROL AY, THROTTLE	1				
	(USED ON H	ONDA MODELS ONLY)					
4-30	540229	WIRE AY	1				
	(USED ON H	ONDA MODELS ONLY)					
4-31	540232	CONTROL AY, KILL SWITCI	H 1				
	4124195	WHEEL AY, 8X1.25 SOLID					
	548171	KNOB	1				
	64141-6	NUT, 5/16-18	5				
	524551	SPACER	3				
4 00		MAY BE USED IN PLACE O	-				
	•	EM 22 WITH ITEM 47)					
1 -36	800492	CAPSCREW,HEX (KC)	1				
	800492	NUT, 25-20 BS SPD "U"	2				
			2 1				
	800883	SCRW,.38-24 2.25 YS HX	1				
	805421	SPRING, EXTENSION	1				
	806800	SWITCH, STOP LIGHT	1				
4-41	524577	BUSHING, .328X.63X.41	2				
				1			

FIGURE 5



Jr. Sodcutter

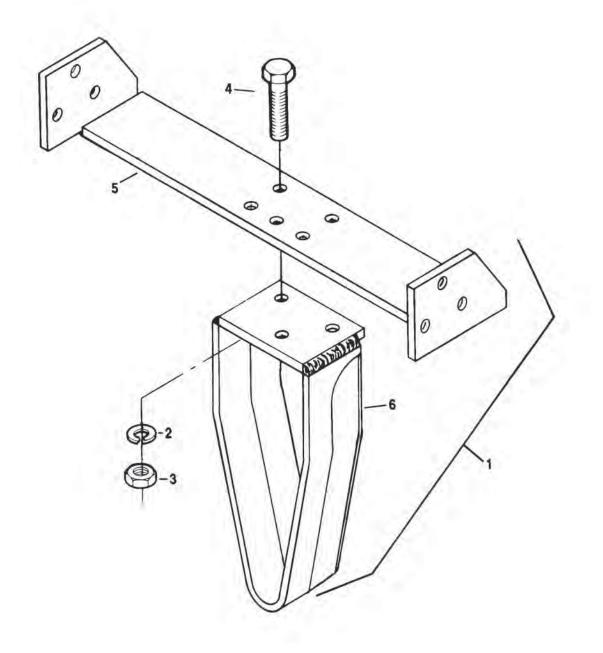
MOLE BLADE KITE

Jr. Sodcutter

FIGURE 5

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
5-1		MOLE BLADE KIT- 3/4" 44844E & 544944A) ITEMS 5-14 & 16-17)	1				
5-2		MOLE BLADE KIT- 3/4" 44845E & 544945A) ITEMS 5-13 & 15-17)	1				
5-3		MOLE BLADE KIT- 1-1/4" 44844E & 544944A) TEMS 5-7 & 9-14 & 17-19)	1				
5-4		MOLE BLADE KIT- 1-1/4" 44845E & 544945A) TEMS 5-7 & 9-13, 15 & 17-1	1 9)				
5-6 5-7		WSHR, 3/8 HELICAL LOCH NUT-3/8-24 HEX BLT-HEX 3/8-24X1-1/4 BLADE AY, MOLE 3/4" TEMS 9-13)	4 4 4 4 1				
5-10 5-11 5-12 5-13	800513 546089	NUT-HEX 5/16-18 PIN,SPIROL.250.750 PS SWIVEL CHAIN AY SCREW-SCKT 5/16-18-1-1/ BRACKET,12"-MOLE BLAD 44844E & 544944A)					
5-15	546092 (USED ON 54	BRACKET,18"-MOLE BLAD 44845E & 544945A)	E 1				
5-16	548613 (USED ON 54	KELLEM GRIP 44670 & 544725)	1				
	808222 544692 (INCLUDES	LINK,CHAIN CONN BLADE AY, MOLE 1-1/4" ITEMS 9-13)	1 1				
5-19	548616 (USED ON 5	KELLEM GRIP 44673 & 544728)	1				

FIGURE 6



Jr. Sodcutter

TRENCHING BLADE

Jr. Sodcutter

FIGURE 6

ITEN	I PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
6-1 ,	546199 (INCLUDES * MODEL 5448		1				
6-2 6-3 6-4 6-5 6-6	64006-03 64025-04 64123-21 546089 546198	WSHR, 3/8 HELICAL LOC NUT-3/8-24 HEX BLT-HEX 3/8-24X1-1/4 BRACKET,12"-MOLE BLA BLADE AY,TRENCHING	3 3				
	parts for insta sodcutters.	trenching blade set includes allation on earlier model Discard any parts not require n model 544844B and newe	ed for				

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