

# SCAG<sup>®</sup>

## POWER EQUIPMENT



### MODEL SE-3.5BS



THIS MANUAL CONTAINS THE OPERATING INSTRUCTIONS AND SAFETY INFORMATION FOR YOUR SCAG EDGER. READING THIS MANUAL WILL PROVIDE YOU WITH MAINTENANCE AND ADJUSTMENT PROCEDURES TO KEEP YOUR EDGER PERFORMING TO MAXIMUM EFFICIENCY. THE SPECIFIC MODELS THAT THIS BOOK COVERS ARE CONTAINED ON THE INSIDE COVER. BEFORE OPERATING YOUR MACHINE, PLEASE READ ALL THE INFORMATION ENCLOSED.

OPERATOR'S MANUAL



# WARNING

## **FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN SERIOUS INJURY.**

- \* Keep all safety shields in place.
- \* Before performing any maintenance or service, stop the machine and remove the spark plug wire.
- \* If a mechanism becomes clogged, stop the engine before cleaning.
- \* Keep hands, feet and clothing away from power-driven parts.
- \* Read this manual completely.
- \* Keep others away from the edger while operating.

## **REMEMBER - YOUR EDGER IS ONLY AS SAFE AS THE OPERATOR!**

Hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment.

This manual covers the operating instructions  
and illustrated parts list for:

**SE-3.5BS with a serial number of 4800001- 4809999**

Always use the entire serial number listed on the serial number tag when referring to this product.

# SCAG<sup>®</sup> POWER EQUIPMENT

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## INTRODUCTION

This manual has been prepared to provide the information you need to correctly assemble, operate, and maintain this edger. Read it carefully and keep it for future reference.

The replacement of any part on this product by other than the manufacturer's authorized replacement part may adversely affect the performance, durability or safety of this product.

### **USE OF OTHER THAN ORIGINAL SCAG REPLACEMENT PARTS WILL VOID THE WARRANTY.**

If additional information or service is needed that is not outlined in this manual, please contact your Scag Power Equipment dealer. Scag dealers are trained in the latest service methods and carry a full line of Scag replacement parts.

When ordering parts, always provide the complete model and serial number of your edger.

All information provided in this manual is based upon information available at the time of printing. Scag Power Equipment reserves the right to make changes at any time without notice or obligation.

### ■ **Direction Reference**

The "Right" and "Left", "Front" and "Rear" of the machine are referenced from the normal operating position.

### ■ **Servicing The Engine**

The detailed servicing of the engine is not covered in this manual. For service of the engine it is important to contact your Scag Dealer or an authorized servicing agent of the engine manufacturer. **Any unauthorized work performed on the engine will void the warranty.**

## SAFETY AND OPERATING INSTRUCTIONS



**To avoid personal injury, it is imperative that all safety instructions be observed.**

### ■ **Read This Operator's Manual**

A replacement manual is available from your authorized Scag Service Dealer or by contacting: Scag Power Equipment, Service Department at P.O. Box 152, Mayville, WI 53050. Please indicate the complete model and serial number of your Scag product when ordering a replacement manual.

Your edger is only as safe as YOU, the operator. As with any power equipment, carelessness or error can result in serious bodily injury. Improper maintenance can also result in injury. To reduce the potential for injury, follow these instructions on safe operation.

### ■ **How To Use This Edger**

1. Be thoroughly familiar with the controls and the proper use of the machine.
2. Know how to stop the edger and disengage the controls quickly.
3. Use the edger only on flower beds and lawns.
4. Always stay behind the handles. Stones and other items thrown by the blade can cause serious injury (See Figure 1, page 2).
5. Do not modify or alter any component of the edger.

### ■ **Dress Properly**

1. Wear safety glasses or goggles.
2. Do not wear loose clothing or jewelry; they can be caught in moving parts. Always wear long pants that cover your legs.

## SAFETY AND OPERATING INSTRUCTIONS (CONT'D)

### ■ Dress Properly, cont.

3. Sturdy gloves and safety footwear are recommended.

### ■ Check The Edger Before Use

1. Never operate the edger unless guards and other protective devices are in place.
2. Before you use the edger, make sure all nuts, bolts, and screws are installed and properly tightened.
3. Where applicable, check pulley setscrews and all fasteners for tightness and lubricate periodically as described in the maintenance section on pages 6 and 7.

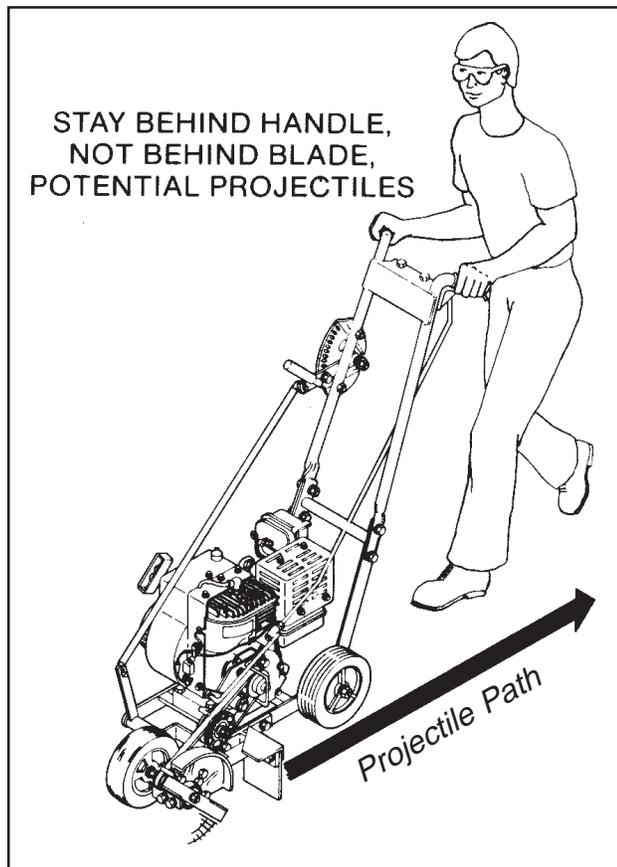


Figure 1, Proper Operating Position

### ■ Stay Alert

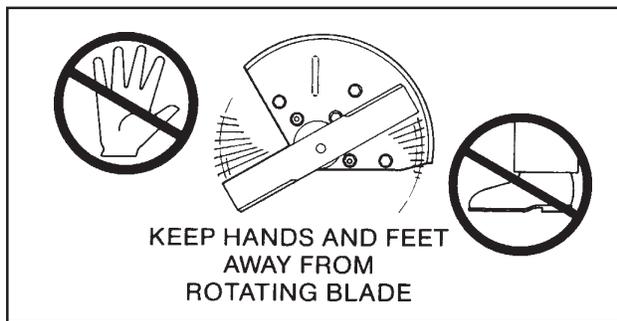
1. Watch what you are doing. Use common sense.
2. Do not operate the edger when you are fatigued or under the influence of alcohol or drugs.

### ■ Operate With Care

1. Keep hands, feet, and clothing well away from the blade and moving parts.
2. Don't overreach or stand on unstable ground. Keep good footing and balance at all times.
3. Start the engine carefully. Stop the engine when leaving the edger unattended.
4. Do not operate the edger with a damaged or excessively worn blade.
5. Never attempt to make adjustments when the edger is running.
6. Never direct discharge of material toward people. Use care in directing discharge to avoid glass enclosures or automobiles.
7. Never operate the edger without good visibility or light of day.
8. Stay alert for uneven sidewalks, holes in the terrain, or other similar conditions when using the edger. Always push slowly over rough ground.
9. Always keep the throttle in the STOP position when the edger is not in use.
10. If the edger strikes a foreign object:
  - (1) stop the engine.
  - (2) disconnect the spark plug lead.
  - (3) inspect for damage.
  - (4) repair any damage before restarting and operating the edger.

## SAFETY AND OPERATING INSTRUCTIONS (CONT'D)

### ■ Keep Hands And Feet From Blade



**Figure 2, Protect Hands And Feet**

1. Keep both hands on the handles when the blade is rotating.
2. Keep your feet and hands away from the cutting area.
3. Do not attempt to remove cut material or hold material to be cut when the engine is running or the blade is moving.
4. Make sure the spark plug wire is disconnected when clearing jammed material from the blade or cutter head.
5. Disengage the blade and stop the engine when the edger is transported or not in use.

### ■ Handle Gasoline With Care

1. Gasoline is highly flammable. Never add gasoline to a running or hot engine.
2. Refuel outdoors in an open area only. Never fill the gasoline tank indoors.

3. After operating the edger, stop the engine and allow the engine to cool before refueling.
4. To reduce the risk of fire, replace the gasoline cap securely after adding fuel to the tank.
5. Use an approved gasoline container.
6. Do not store gasoline in a house.
7. If gasoline is spilled on the ground, move the edger and the gasoline container from the area and do not create a source of ignition.
8. If gasoline is spilled on clothing, remove the stained clothes and replace them with clean, dry clothes before operating the edger.

### ■ Follow Maintenance Instructions Carefully

1. Disconnect the spark plug lead before servicing any part of the edger.
2. To reduce the risk of fire, do not allow excessive grass, leaves, lubricants or gasoline to accumulate on the edger.
3. Do not attempt to make repairs other than those identified in this manual. Repairs not detailed in this manual should be performed by an authorized Scag dealer. See that only identical replacement parts are used.
4. When cleaning, repairing, or inspecting the edger, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire.
5. When lifting or transporting the edger, firmly grasp a solid part of the frame. Do not lift the edger by the clutch or height adjustment assemblies. **Blade is sharp!** Be careful of the blade when lifting.
6. Do not run the edger indoors; exhaust fumes are dangerous.

## SAFETY AND OPERATING INSTRUCTIONS (CONT'D)

### ■ Protect Operators

1. Keep a safe distance between two or more operators when working with a cutting crew at the same site.

## SETUP & OPERATION

### ■ Assembly

1. Install the upper handle assembly with hardware as shown in Figure 3 using (4) 5/16-18 x 1" bolts, and (4) 5/16-18 elastic stop nuts.
2. Attach the height adjustment index to the upper handle assembly using (2) 5/16-18 x 1-1/2" hex head bolts, (2) 5/16 flat washers and (2) 5/16-18 elastic stop nuts.
3. Install the tube-type control rod on right hand side between the front wheel height lever and the index quadrant using (4) hair pin cotters to secure the control rod.
4. Install the operator presence safety control rod with the long rod at the top and the short rod at the idler pulley arm using (4) hair pin cotters. Adjust the length of the rod for normal belt tension (See Figure 4).
5. Fill the engine with oil as described in the engine operator's manual. Lubricate all grease fittings with lithium-based grease.
6. Fill the engine fuel tank with fresh unleaded gasoline that has a minimum octane rating of 87.

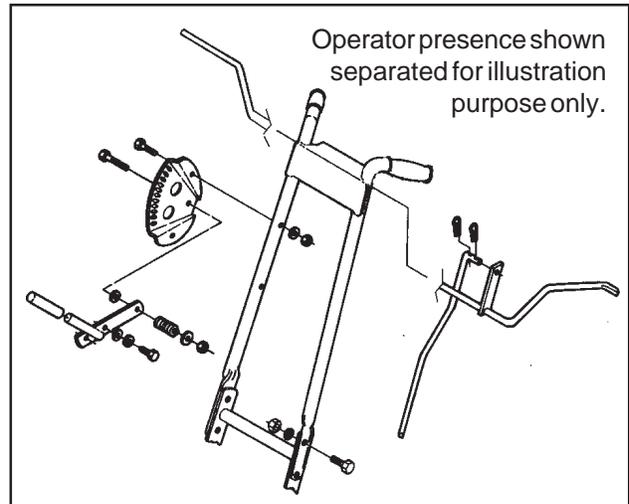


Figure 3, Handle Setup

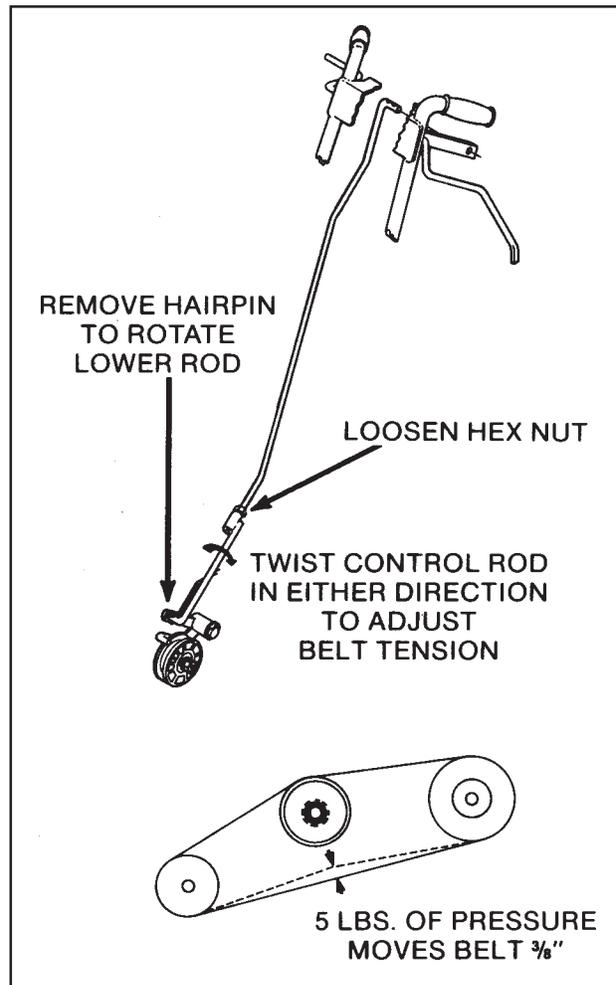


Figure 4, Operator Presence Controls

## SETUP & OPERATION (CONT'D)

### ■ Operating Instructions

Figure 5 is a general view of the edger.

**Note:** The right or left side of the edger refers to the view from the normal operating position, behind the handles.

### ■ Before Operation

1. Check the engine oil level as detailed in the engine operator's manual.
2. Before starting the engine, be sure the blade has a free arc of travel and the blade is fully raised. Damage to the blade can result if the blade is not in the highest position (See Figures 5 and 6).

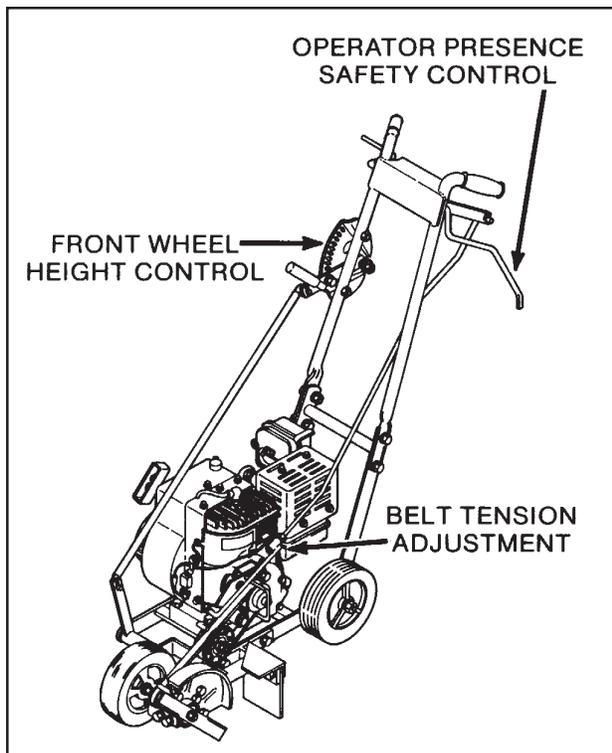


Figure 5, Edger Controls

### ■ Starting The Engine

## ⚠ CAUTION:

Be sure no one is standing near the blade. Keep body parts away from the blade. Before starting, clear operating area of foreign objects, sticks, stones, etc.

Refer to the engine operator's manual for starting instructions.

### ■ Operation

1. Move the edger to the working area.
2. Pull the operator presence safety levers up to engage the blade (See Figure 7) and carefully raise the front wheel until the blade is at the desired cutting depth. When the height adjustment lever is all the way forward, the blade is 1/2 inch from the ground. The blade is lowered approximately 1/4 inch for each notch in the height adjustment index.

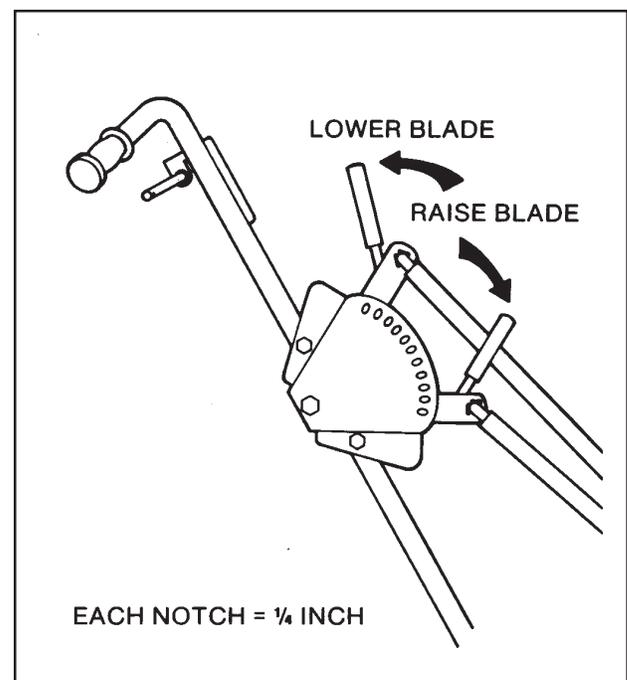


Figure 6, Edger Blade Controls

## SETUP & OPERATION (CONT'D)

3. Push the edger forward slowly, adjust your pace to the engine's capacity.

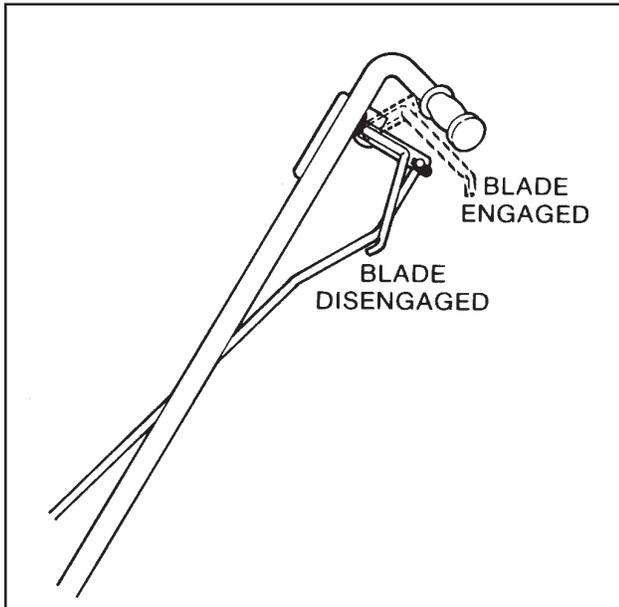


Figure 7, Engaging The Blade

## MAINTENANCE

### CAUTION:

To prevent injury from rotating parts turn the engine stop switch to OFF and disconnect the spark plug wire from the engine before attempting any maintenance.

### ■ Changing Engine Oil

Oil should be changed after the first 20 hours of use and then after every 50 hours of use.

1. Start the engine and allow it to warm up.
2. Turn the engine switch to OFF. Make sure the blade has stopped turning. Disconnect the spark plug wire.
3. Carefully clean all debris from around the oil filler cap. Remove the cap.

4. Remove the oil drain plug and drain the oil into an appropriate container.
5. After the oil is drained, replace the drain plug and refill the crankcase to the level specified in the engine owner's manual.
6. Replace the oil cap.
7. Dispose of the used oil properly.

### ■ Changing The Belt

1. Remove the flat bar belt guide at the front of the spindle boom assembly (See Figure 8).
2. Remove the old belt.
3. Install the new belt. Do not attempt to pry or force the belt into the pulley grooves as this may damage the belt.
4. Replace the front belt guide.

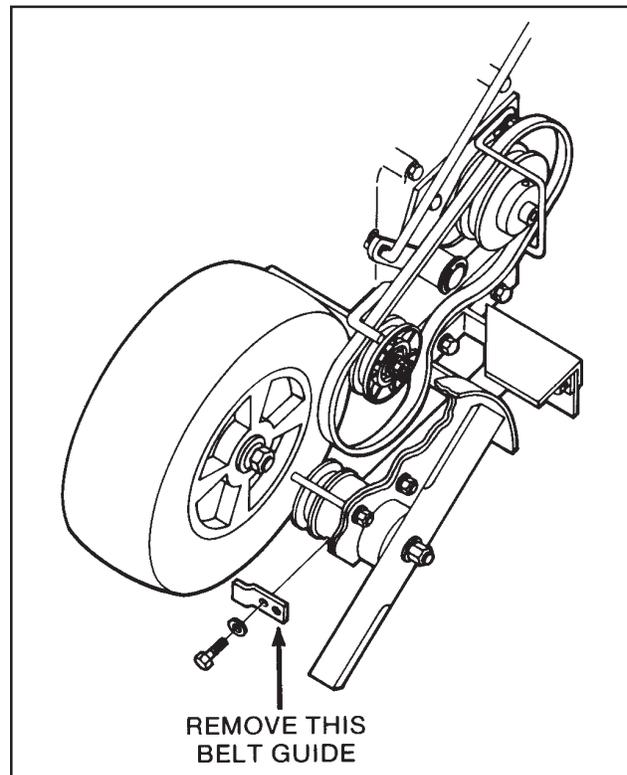


Figure 8, Belt Replacement

## MAINTENANCE (CONT'D)

### ■ Belt Tension

Always adjust the belt tension after changing the belt. New belts may stretch. Excess tension on the belt will make holding the clutch difficult and cause the belts to wear.

To adjust belt tension (See Figure 9):

1. Remove the cotter pin from the lower control rod and disconnect the lower control rod from the idler pulley assembly.
2. To increase the belt tension, loosen the hex nut and turn the lower control rod to shorten the rod. Retighten the nut after the rod is reinstalled.

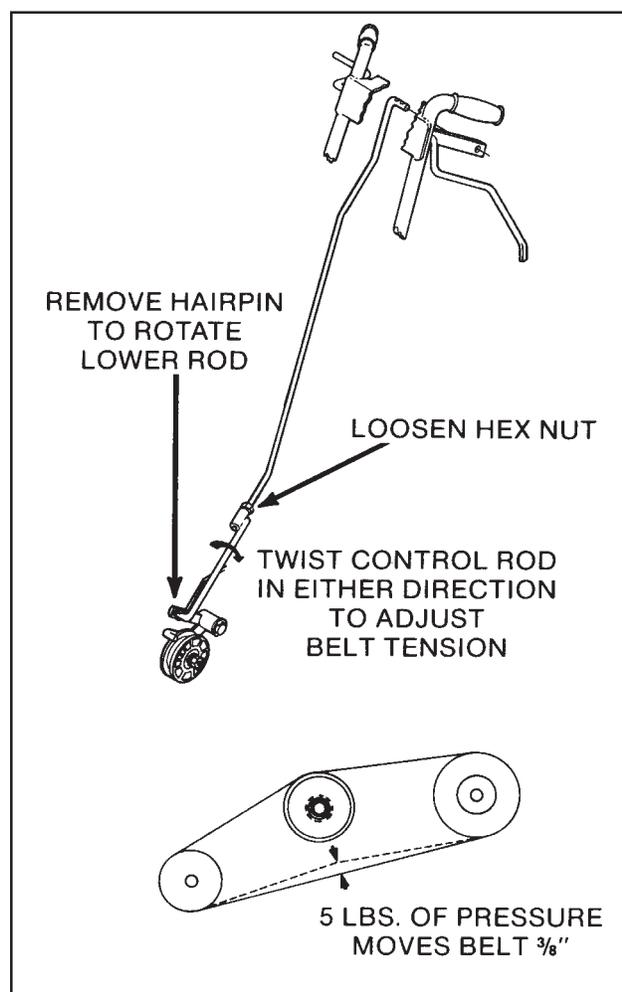


Figure 9, Belt Tension

### ■ Changing the Blade

## ⚠ CAUTION:

The blade is sharp! Wear gloves when changing the blade. Do not operate the edger with a damaged or excessively worn blade.

**Note:** *Blades must be balanced before installation to prevent vibration and wear to the edger.*

1. While holding the hex bolt head by the spindle pulley, remove the nut and washer and carefully remove the blade from the assembly (See Figure 10).
2. Install the new blade.
3. Replace the nut and washer.
4. Tighten the nut securely. Keep the spindle shaft from rotating with a wrench on the hex nut located on the pulley.

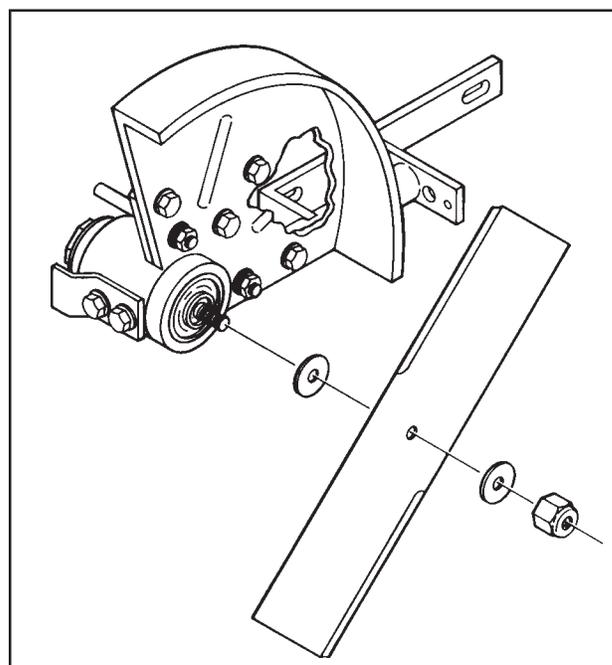


Figure 10, Blade Replacement

## MAINTENANCE (CONT'D)

### ■ Rubber Debris Deflector

Replace the rubber deflector when worn or damaged to prevent operator injury.

### ■ Lubrication

Grease the edger periodically at the points shown on Figure 11. Use lithium-based grease.

**Note:** The spindle bearings are sealed and permanently lubricated. They should require no maintenance.

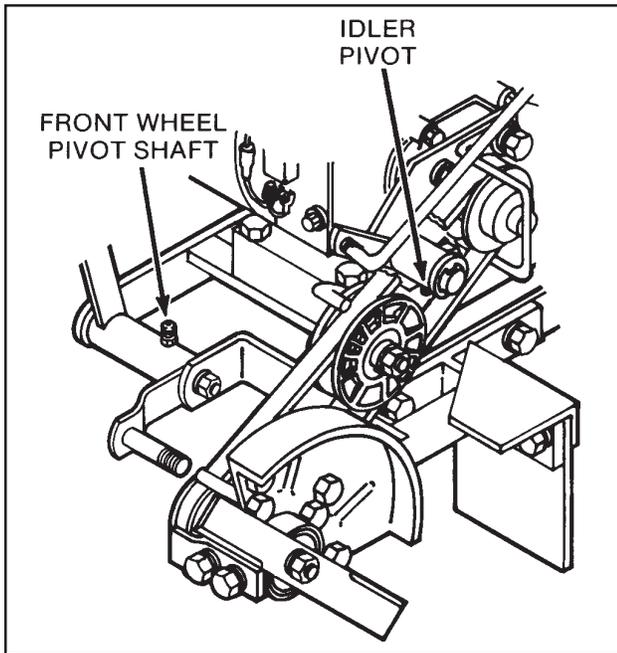


Figure 11, Lubrication

**TROUBLESHOOTING GUIDE****Problem**

Engine fails to start

**Cause**

Fuel level is low.  
Spark plug lead wire disconnected.  
Throttle or choke not in starting position.  
Spark plug defective.  
Carburetor improperly adjusted.  
Old/stale gasoline.  
Engine kill switch in off position.

Hard starting or loss of power

Carburetor improperly adjusted.  
Spark plug wire loose.  
Dirty air cleaner.

Operation erratic

Dirt in gasoline tank.  
Dirty air cleaner.  
Water in fuel supply.  
Vent in gas cap and/or carburetor plugged.  
Carburetor improperly adjusted.

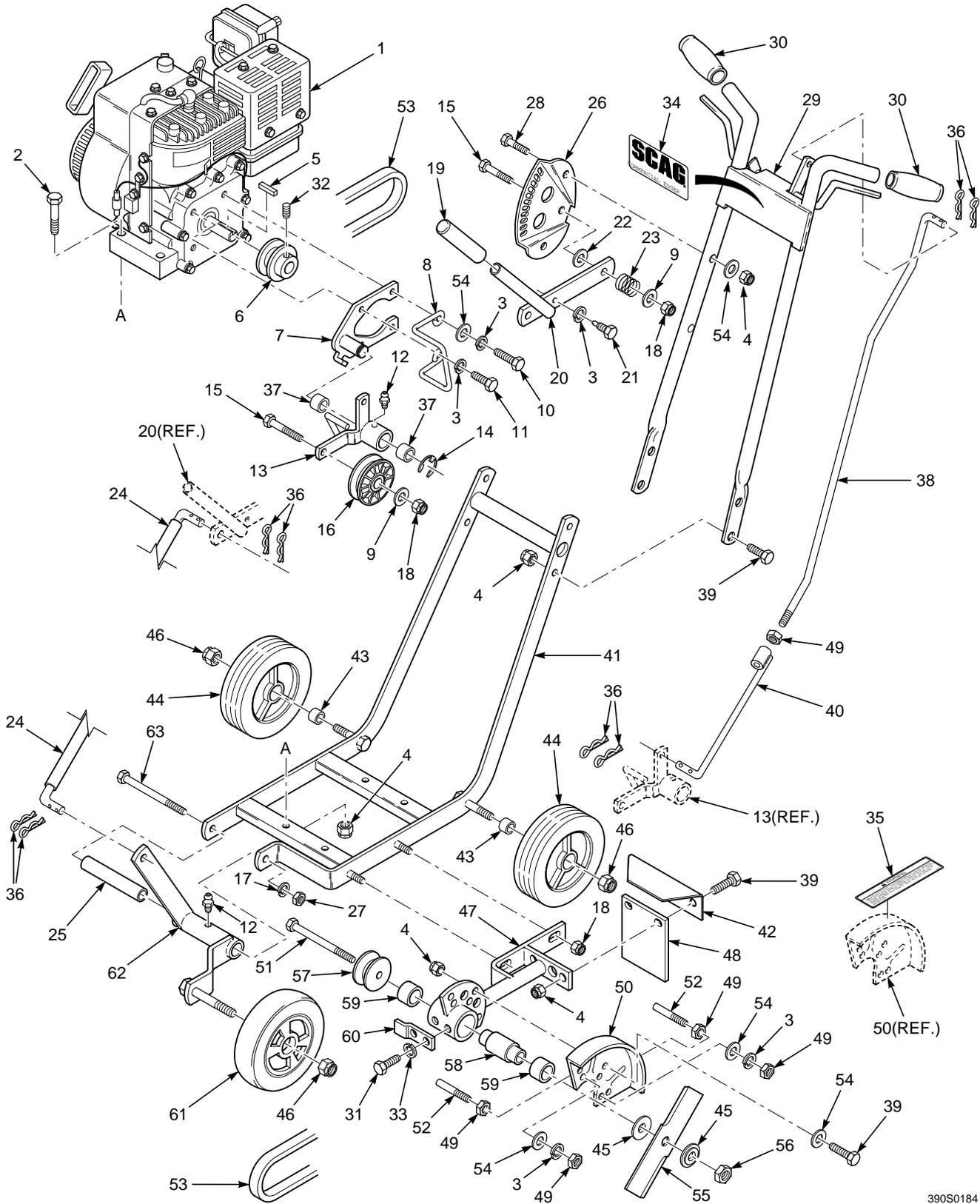
Engine skips at high speed

Spark plug fouled, faulty, or gap too wide.  
Carburetor improperly adjusted.  
Dirty air cleaner.

Engine idles poorly

Carburetor idle speed too slow.  
Carburetor improperly adjusted.  
Spark plug gap too close.  
Carburetor idle mixture improperly set.

## LAWN EDGER SE-3.5BS



## LAWN EDGER SE-3.5BS

Ref. Part No. No.	Description	
1 481886	Engine, 3.5 HP. Briggs & Stratton	32 04012-04 Set Screw, 5/16-18 x 3/8"
2 04001-12	Bolt, Hex Head 5/16-18 x 1.75"	33 04030-02 Lockwasher, 1/4" Spring
3 04030-03	Lockwasher, 5/16" Spring	34 48454 Decal, SCAG
4 04021-10	Locknut, 5/16-18 Hex Elastic Stop	35 481043 Decal, Warning
5 04063-05	Key, 3/16 x 3/16 x 1.50"	36 04062-02 Hair Pin, .080 x 1.19
6 48451	Pulley, 2.50 Dia. - .75 Bore Engine	37 48100-05 Bearing, Oilite
7 45291	Engine Adapter Bracket	38 44039 Control Rod, Upper
8 44048	Belt Guide, Engine	39 04001-09 Bolt, Hex Head 5/16-18 x 1"
9 04041-07	Flatwasher, 3/8" (.391 x .938 x .105)	40 45269 Control Rod, Lower
10 04001-16	Bolt, Hex Head 5/16-24 x 1.25"	41 45226 Frame Weldment, Engine Deck
11 04001-43	Bolt, Hex Head 5/16-24 x .75"	42 42591 Debris Guard
12 48114-04	Grease Fitting	43 43141 Spacer, Rear Wheel
13 46321	Idler Pulley Arm Assy.(Includes Bushings & Grease Fittings)	44 48446 Wheel, Rear
14 04050-02	Retaining Ring, 3/4" External "E"	45 43211 Washer, Step 2.00" Dia.
15 04001-21	Bolt, Hex Head 3/8-16 x 1.75"	46 04021-07 Nut, 1/2-13 Hex Elastic Stop
16 48441	Pulley, Idler	47 45228 Spindle Boom Weldment
17 04030-04	Lockwasher, 3/8" Spring	48 48453 Rubber Deflector
18 04021-09	Nut, 3/8-16 Hex Elastic Stop	49 04020-03 Nut, Hex 5/16-18
19 48144	Grip, Height Adjustment Lever	50 46359 Blade Guard, With Decal
20 45229	Height Adjustment Lever	51 04001-84 Bolt, 1/2-13 x 4-1/2" Hex Head
21 43147	Index Pin	52 04004-11 Stud, 5/16-18 x 3" Grade 5
22 04041-10	Flatwasher, 3/8" (.375 x 2.0 x .060)	53 48452 Belt
23 48050	Spring	54 04040-04 Flatwasher, 5/16" (.344 x .688 x .065)
24 45288	Control Rod, Wheel Height Adjustment	55 48444 Blade
25 43138	Sleeve	56 04020-07 Nut, Hex 1/2-13
26 42595	Plate, Height Adjustment Index	57 48626 Pulley Spindle
27 04020-04	Nut, Hex 3/8-16	58 43139 Shaft, Spindle
28 04001-11	Bolt, 5/16-18 x 1-1/2" Hex Head	59 48442 Bearing, Spindle
29 461178	Handle Assembly, (Includes Grips & Decal)	60 42584 Belt Guide
30 48448	Grip, Handle	61 48440 Wheel, Front
31 04001-44	Bolt, Hex Head 1/4-20 x 1/2"	62 45231 Bracket, Front Wheel
		63 04001-47 Bolt, Hex Head 3/8-16 x 5"

\* Common hardware which should be purchased locally. All bolts Grade 5 plated, all other fasteners zinc plated.



481043



48454

## **LIMITED WARRANTY- COMMERCIAL ACCESSORY**

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Any part of the Scag commercial accessory manufactured by Scag and found, in the reasonable judgment of Scag, to be defective in material or workmanship, will be repaired or replaced by an Authorized Scag Service Dealer without charge for parts and labor.

The Scag accessory, including any defective part, must be returned to an Authorized Scag Service Dealer within the warranty period. The expense of delivering the accessory to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. Scag's responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Scag machine. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an Authorized Scag Service Dealer.

This warranty is limited to 90 days from the date of original retail purchase for any Scag accessory that is used for commercial purposes, or any other income-producing purpose including rental use.

This warranty does not cover any accessory that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual. The warranty does not apply to any damage to the accessory that is the result of improper maintenance, or to any accessory or parts that have not been assembled or installed as specified in the Operator's Manual.

The warranty does not cover any accessory that has been altered or modified. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which, in the reasonable judgment of Scag, are either incompatible with the Scag mower or adversely affect its operation, performance or durability. This warranty does not cover engines and electric starters, which are warranted separately by their manufacturer.

Scag Power Equipment reserves the right to change or improve the design of any accessory without assuming any obligation to modify any accessory previously manufactured.

All other implied warranties are limited in duration to the 90 day warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate ninety day warranty period. Scag's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts and Scag does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Scag assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, oil, expense of delivering the machine to an Authorized Scag Service Dealer and expense of returning it back to the owner, mechanic's travel time, telephone or telegram charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the mower, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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

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