



Congratulations on owning a Scag mower! This manual contains the operating instructions and safety information for your Scag mower. Reading this manual can provide you with assistance in maintenance and adjustment procedures to keep your mower performing to maximum efficiency. The specific models that this book covers are listed on the inside cover. Before operating your machine, please read all the information enclosed.



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

- Read this manual completely as well as other manuals that came with your mower.
- ALWAYS follow all safety instructions on this product and in the manual to avoid personal injury or death.
- ALWAYS FOLLOW OSHA APPROVED OPERATION.
- This product is capable of amputating hands and feet and throwing objects.
- Keep hands, feet and clothing away from power-driven parts.
- DO NOT operate on steep slopes.
- Always travel across slopes.
- DO NOT mow on wet grass. Wet grass reduces traction and steering control.
- Keep all shields in place, especially the grass discharge chute.
- 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 others off the mower (only one person at a time)

#### REMEMBER - YOUR MOWER 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:							
SFC30-7CV with a serial number of W5300001 to W5399999							
SFC30-7CV-CA with a serial number of W5400001 to W5499999							
SFC30-7CV-S with a serial number of W5500001 to W5599999							
SFC30-7CV-CA-S with a serial number of W5600001 to W5699999							
Always use the entire serial number listed on the serial number tag when referring to this product.							



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### **GENERAL INFORMATION**

#### 1.1 INTRODUCTION

Your mower was built to the highest standards in the industry. However, the prolonged life and maximum efficiency of your mower depends on you following the operating, maintenance and adjustment instructions in this manual.

The mower is designed to bag, mulch or side discharge the grass clippings. During the assembly process at the factory the mower has been set up to bag the grass clippings with grass collection baffles installed. If the mower has been converted to either mulch or side discharge, the grass collection baffles must be reinstalled on the cutter deck prior to bagging the grass clippings. See Figure 1-1 for grass collection baffle location.

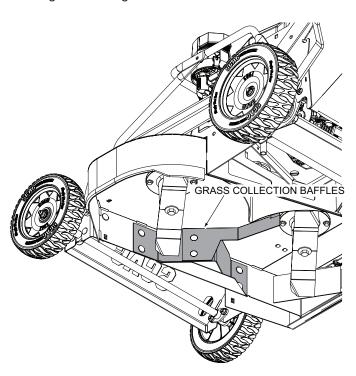


Figure 1-1. Grass Collection Baffle

#### -IMPORTANT-

Failure to install the grass collection baffle will result in poor bagging perfomance.

If additional information or service is needed, contact your Scag Power Equipment Dealer.

We encourage you to contact your dealer for repairs. All Scag dealers are informed of the latest methods to service this equipment and provide prompt and efficient service in the field or at their service shop. They carry a full line of Scag service parts.

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.

When ordering parts, always give the model and serial number of your mower. The serial number plate is located on the right side on the frame. See Figure 1-2.

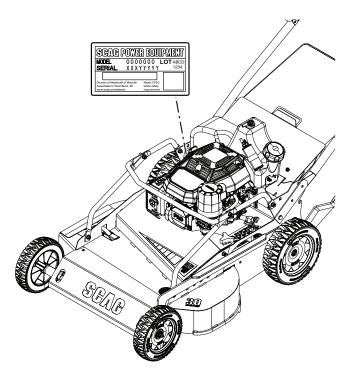


Figure 1-2. Mower Serial Number Plate Location

### USE ONLY SCAG APPROVED ATTACHMENTS AND ACCESSORIES.

Attachments and accessories manufactured by companies other than Scag Power Equipment are not approved for use on this machine. See Section 8-1. Be aware that using attachments with the mower may affect stability. Be sure to follow the directions found in the operator's manual. See Section 8, Paragraph 8-1.



### WARNING

For pictorial clarity, some illustrations and figures in this manual may show shields, guards or plates open or removed. Under no circumstances should your mower be operated without these devices in place.

All information is based upon product information available at the time of approval for printing. Scag Power Equipment reserves the right to make changes at any time without notice and without incurring any obligation.

#### 1.2 DIRECTION REFERENCE

The "Right" and "Left", "Front" and "Rear" of the machine are referenced from the operator's right and left when in the normal operating position and facing the forward travel direction.

### 1.3 SERVICING THE ENGINE AND DRIVE TRAIN COMPONENTS

The detail servicing and repair of the engine, transmissions and gearboxes are not covered in this manual; only routine maintenance and general service instructions are provided. For service of these components during the limited warranty period, it is important to contact your Scag dealer or find a local authorized servicing agent of the component manufacturer. Any unauthorized work done on these components during the warranty period may void your warranty.

#### 1.4 ASSEMBLY INSTRUCTIONS

- In an open area, remove the grass bag, side discharge chute, hardware bag and mower from the packaging.
- Using a side cutters, cut the four (4) zip ties securing the handle bars to the top of the mower. See Figure 1-3.

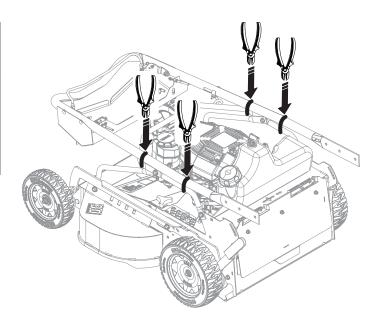


Figure 1-3. Removing from Packaging

3. With help from an assistant, raise the handle bar assembly and secure using two (2) carriage bolt and two (2) threaded knobs as shown first. See Figure 1-4.

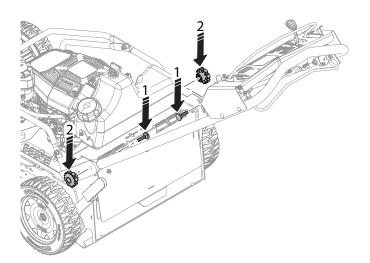


Figure 1-4. Lift and Secure the Handle Bar Assembly

4. While holding the handle bar assembly in place, use a piece of scrap material, broom handle or other object wider that the handle bars, lift and support the rear cover to gain access to the rear of the mower. See Figure 1-5.

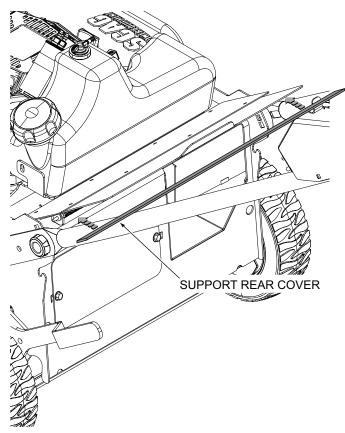


Figure 1-5. Lift and Support Rear Cover

5. While holding the handle bar assembly in place, remove the rear discharge plug from the cutter deck to gain access to the lower handle bar mounting hole on the right side of the mower. See Figure 1-6.

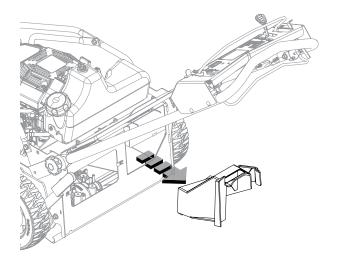


Figure 1-6. Remove Rear Discharge Plug

6. While holding the handle bar assembly in place, install the lower handle bar mounting hardware. See Figure 1-7 and Figure 1-8.

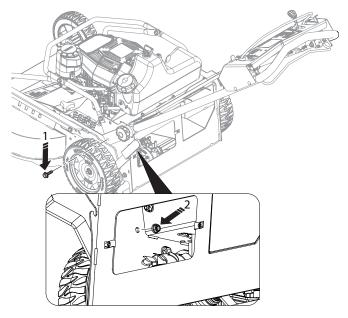


Figure 1-7. Lower Left Handle Bar Mounting Hardware

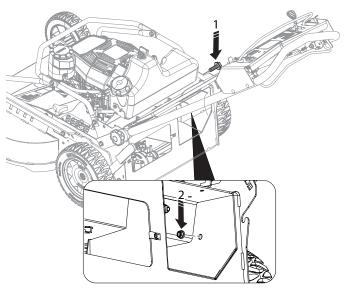


Figure 1-8. Lower Left Handle Bar Mounting Hardware

7. Install the cutting height pin into the 3-1/4" height of cut position. See Figure 1-9.



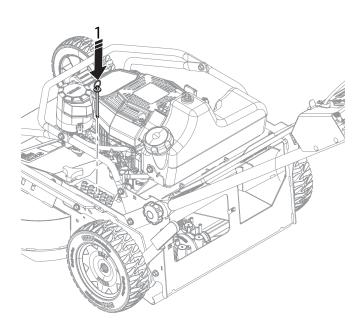


Figure 1-9. Install Height of Cut Pin

- 8. With the cutting height pin in place, the hardware securing the cutter deck lift system in the shipping position can be removed.
- 9. Remove the 3/8"-16 x 1-1/2" bolt, spacer and nut. See Figure 1-10.

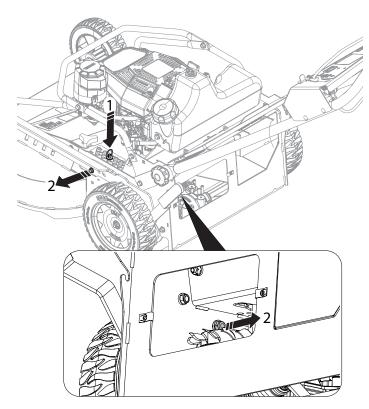


Figure 1-10. Remove Shipping Hardware

10. Reinstall the rear discharge plug removed earlier. See Figure 1-11

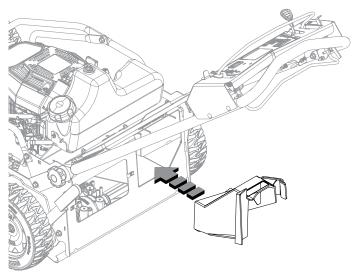


Figure 1-11. Reinstall the Rear Discharge Plug

11. Install the rear cover onto the back of the mower and secure using two (2) 1/4-20 x 1/2" bolts. See Figure 1-12.

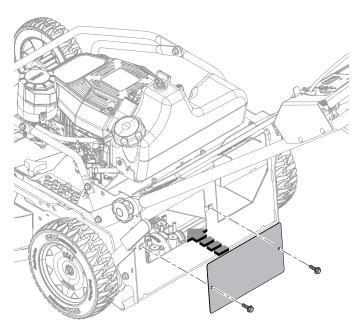


Figure 1-12. Install the Grass Collection Bag

- 12. Install the grass collection bag onto the back of the mower.
- 13. Assembly is now complete on the mower. Check the oil level prior to starting the engine.



### 1.5 SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	Choke	O	Transmission
(P)	Parking Brake	607(s	Spinning Blade
	On/Start	U <sub>6</sub>	Spring Tension on Idler
O	Off/Stop	0	Oil
	Falling Hazard	<b>%</b>	Thrown Object Hazard
*	Fast		Slow
	Continuously Variable - Linear		Cutting Element - Basic Symbol
# (O)	Pinch Point		Cutting Element - Engage
	Hour meter/Elapsed Operating Hours		Cutting Element - Disengage
	Keep Bystanders Away		Read Operator's Manual



### SAFETY INFORMATION

#### 2.1 INTRODUCTION

Your mower is only as safe as the operator. Carelessness or operator error may result in serious bodily injury or death. 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. Make sure every operator is properly trained and thoroughly familiar with all of the controls before operating the mower. The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions on this product and in the manual to avoid personal injury or death.

READ THIS OPERATOR'S MANUAL BEFORE ATTEMPTING TO START YOUR MOWER. MAKE SURE THAT EVERYONE KNOWS WHERE THE MANUAL IS LOCATED AND KEEP A RECORD OF EACH EMPLOYEE THAT HAS READ THE 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 or contact us via the Internet at www.scag.com. The manual for this machine can be downloaded by using the model and serial number or use the contact form to make your request. Please indicate the complete model and serial number of your Scag product when requesting replacement manuals.

#### 2.2 SIGNAL WORDS



This symbol means "Attention! Become Alert! Your Safety is Involved!" The symbol is used with the following signal words to attract your attention to safety messages found on the decals on the machine and throughout this manual. The message that follows the symbol contains important information about safety. To avoid injury and possible death, carefully read the message! Be sure to fully understand the causes of possible injury or death.

#### **SIGNAL WORD:**

It is a distinctive word found on the safety decals on the machine and throughout this manual that alerts the viewer to the existence and relative degree of the hazard.



The signal word "DANGER" denotes that an extremely hazardous situation exists on or near the machine that could result in high probability of death or irreparable injury if proper precautions are not taken.



The signal word "WARNING" denotes that a hazard exists on or near the machine that can result in injury or death if proper precautions are not taken.



The signal word "CAUTION" is a reminder of safety practices on or near the machine that could result in personal injury if proper precautions are not taken.

Your safety and the safety of others depends significantly upon your knowledge and understanding of all correct operating practices and procedures of this machine.

## 2.3 BEFORE OPERATION CONSIDERATIONS

- NEVER allow children to operate this mower. Do not allow adults to operate this machine without proper instructions.
- Do not mow when children and/or others are present. Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator. Be alert and turn machine off if a child enters the area.
- 3. DO NOT allow children to ride or play on the machine, it is not a toy.
- 4. Clear the area to be mowed of objects that could be picked up and thrown by the cutter blades.



- 5. DO NOT carry passengers.
- 6. DO NOT operate the machine under the influence of alcohol or drugs.
- 7. If the operator(s) or mechanic(s) cannot read English, it is the owner's responsibility to explain this material to them. A Spanish decal kit is available for this model. See your local Scag Dealer.
- 8. DO NOT wear loose fitting clothing. Loose clothing, jewelry or long hair could get tangled in moving parts. Do not operate the machine wearing shorts; always wear adequate protective clothing including long pants and substantial slip-resistant footwear. Wearing safety glasses, safety shoes and a helmet is advisable and is required by some local ordinances and insurance regulations.

### **WARNING**

Always wear hearing protection. Operating this machine over prolonged periods of time can cause loss of hearing.

- Keep the machine and attachments in good operating condition. Keep all shields and safety devices in place. If a shield, safety device or decal is defective or damaged, repair or replace it before operating the machine.
- 10. Fuel is flammable; handle it with care. Fill the fuel tank outdoors. Never fill it indoors. Use a funnel or spout to prevent spillage. Clean up any spillage before starting the engine.
- 11. DO NOT add fuel to a running or hot engine. Allow the engine to cool for several minutes before adding fuel. Never fuel indoors or inside enclosed trailers.
- 12. DO NOT start the engine until any spilled fuel has been cleaned up or has evaporated.
- 13. Keep flammable objects (cigarettes, matches, etc.), open flames and sparks away from the fuel tank and fuel container. Use only approved containers.
- 14. See Section 7.3 ENGINE FUEL SYSTEM for fueling procedure.
- Equipment must comply with the latest requirements per SAE J137 and/or ANSI/ASAE S279 when driven on public roads.
- 16. Do not operate without the side discharge chute installed or with the grass catcher or mulch plate completely installed.

17. Check the blade mounting bolts at frequent intervals for proper tightness.

#### 2.4 TESTING THE BLADE STOP SYSTEM

The blade stop system should be tested each time before using the machine. Check that the blades stop within 3 seconds of releasing the control bar as described below.

#### -IMPORTANT-

If the blades do not stop within 3 seconds of releasing the control bar, contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system repaired.

#### **TEST USING THE GRASS BAG**

- 1. Remove the rear discharge plug.
- Install the empty grass bag onto the rear of the machine.
- 3. Start the engine. Allow the engine to warm up before engaging the blades.
- 4. Engage the blades.

#### -NOTE-

The bag should begin to inflate, indicating that the blades are rotating.

- 5. Watch the bag and release the control bar.
- 6. Immediately start counting out 3 seconds and watch for the bag to deflate.

#### -NOTE-

If the bag does not deflate within 3 seconds of releasing the control bar, the blade stop system could be deteriorating or out of adjustment. Contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system repaired.

7. Shut the engine off and wait for all moving parts to stop.

#### **TEST NOT USING THE GRASS BAG**

- 1. Remove the grass bag.
- 2. Install the rear discharge plug.



- 3. Remove the discharge block off plate and install the discharge chute.
- 4. Move the machine onto a paved surface such as a driveway, sidewalk, parking lot or patio next to a section of grass.
- 5. Position the machine so the discharge chute is pointing towards the patch of grass and approximately 3" away. See Figure 2-1.
- 6. Start the engine. Allow the engine to warm up before engaging the blades.
- 7. Engage the blades.

#### -NOTE-

The grass next to the discharge chute should start to move from the air flow, indicating that the blades are rotating.

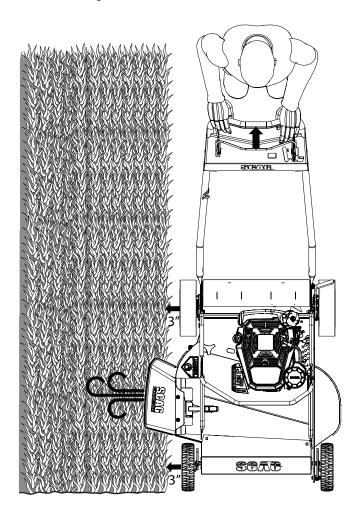


Figure 2-1. Blade Stop

8. Watch the grass and release the control bar.

9. Immediately start counting out 3 seconds and watch for the grass to stop moving.

#### -NOTE-

If the grass does not stop moving within 3 seconds of releasing the control bar, the blade stop system could be deteriorating or out of adjustment. Contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system repaired.

10. Shut the engine off and wait for all moving parts to stop.

#### 2.5 OPERATION CONSIDERATIONS

1. Know the function of all controls and how to stop quickly.

### **A** WARNING

DO NOT operate on steep slopes. ALWAYS FOLLOW OSHA APPROVED OPERATION.

- Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing directions on slopes.
- 3. Do not mow or operate on excessively steep slopes. Poor footing could cause a slip and fall accident.
- To prevent tipping or loss of control, start and stop smoothly, avoid unnecessary turns and travel at reduced speed.
- 5. Immediately apply the parking brake if you lose drive control while operating. Inspect the machine and correct the problem before continuing to operate.
- 6. When using any attachment, never direct the discharge of material toward bystanders or allow anyone near the machine while in operation.
- Start the engine when the blade control bar is in the neutral lock position, the drive control bar is disengaged, and the parking brake is engaged.
- 8. If the mower discharge ever plugs, shut off the engine, remove the spark plug wire, and wait for all movement to stop before removing the obstruction.



### **WARNING**

DO NOT use your hand to dislodge the clogged discharge chute. Use a stick or other device to remove clogged material after the engine has stopped running and the blades have stopped turning.

- Be alert for holes, rocks, roots and other hidden hazards in the terrain. Use caution when operating near drop-offs. Beware of overhead obstructions (low limbs, etc.), underground obstacles (sprinklers, pipes, tree roots, etc.). Cautiously enter a new area. Be alert for hidden hazards.
- 10. Disengage power to cutter deck before backing up. Do not mow in reverse unless absolutely necessary and then only after observation of the entire area behind the mower. If you must mow in reverse, maintain a constant lookout to the rear of the machine and mow slowly.
- 11. DO NOT turn sharply. Use care when backing up.
- 12. Disengage power to cutter deck before crossing roads, walks or gravel drives.
- 13. Mow only in daylight or good artificial light.
- 14. NEVER raise the deck with the blades engaged.
- 15. Take all possible precautions when leaving the machine unattended, such as disengaging the mower, and stopping the engine.
- 16. Disengage power to the attachments when transporting or when not in use.
- 17. The machine and attachments should be stopped and inspected for damage after striking a foreign object, and damage should be repaired before restarting and operating the machine.

### **A** CAUTION

Do not touch the engine or the muffler while the engine is running or immediately after stopping. These areas may be hot enough to cause a burn.

### **A DANGER**

DO NOT run the engine inside a building or a confined area without proper ventilation. Exhaust fumes are hazardous and contain carbon monoxide which can cause brain injury and death.

- 18. Keep hands and feet away from cutter blades and moving parts. Contact can injure.
- 19. Transport the mower using a heavy duty trailer or truck. Insure the trailer or truck has all of the necessary lighting and markings as required by laws, codes, and ordinances. Secure a trailer with a safety chain.
- 20. Be cautious when loading and unloading onto trailers or trucks. Use only a full width ramp.
- 21. When transporting the mower, make sure the drive control bar is in neutral, the blade control bar is in the neutral lock position, the engine is off, the parking brake is engaged and the wheels have been blocked.
- 22. Tie the mower down securely using straps, chains, cable, or ropes. Both front and rear straps must be directed down and outward from machine.
- 23. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- 24. NEVER leave the machine running unattended.

## 2.6 MAINTENANCE CONSIDERATIONS & STORAGE

- Never make adjustments to the machine with the engine running unless specifically instructed to do so. If the engine is running, keep hands, feet, and clothing away from moving parts.
- Place the drive control bar in neutral, engage the parking brake, blade control bar is in the neutral lock position, stop engine and disconnect spark plug wire to prevent accidental starting of the engine when servicing or adjusting the machine. Wait for all movement to stop before adjusting, cleaning or repairing.
- 3. Remove spark plug wire before making any repairs.
- Keep all nuts, bolts and screws tight, to ensure the machine is in safe working condition. Check blade mounting bolts frequently to be sure they are tight.



5. The handle bars can be moved upward to the storage position when required by removing the carriage bolts and knobs on both sides and rotating the handle bar upward. Secure in the storage position by installing the carraige bolts and knobs. See Figure 2-2.

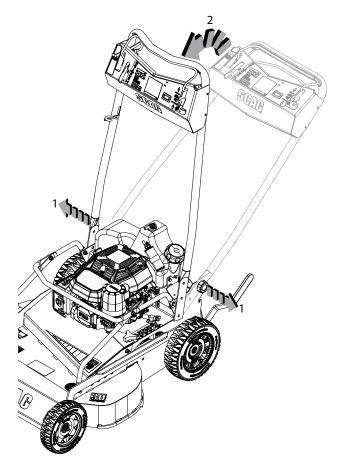


Figure 2-2. Handle Bar Storage Position

- 6. Do not change the engine governor settings or overspeed the engine. See the engine operator's manual for information on engine settings.
- 7. To reduce fire hazard, keep the cutting units, drives, muffler and engine free of grass, leaves, excessive grease, oil and dirt.
- 8. Park the machine on level ground.
- NEVER allow untrained personnel to service the machine.
- Use care when checking blades. Use a Blade Buddy, wrap the blade(s) or wear gloves and USE CAUTION when servicing blades. Only replace blades. NEVER straighten or weld blades.
- 11. Keep all parts in good working condition. Replace all worn or damaged decals.

- 12. Use jack stands to support components when required.
- 13. Carefully release pressure from components with stored energy.
- 14. Let the engine cool before storing.
- 15. DO NOT store the machine near an open flame.
- 16. Shut off fuel while storing or transporting.
- 17. DO NOT store fuel near flames or drain indoors.

#### 2.7 USING A SPARK ARRESTOR

The engine in this machine is not equipped with a spark arrestor muffler. It is in violation of California Public Resource Code Section 4442 to use or operate this engine on or near any forest covered, brush covered or grass covered land unless the exhaust system is equipped with a spark arrestor meeting any applicable local or state laws. Other states or federal areas may have similar laws. Check with your state or local authorities for regulations pertaining to these requirements.

#### 2.8 SPARK IGNITION SYSTEM

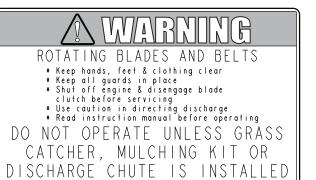
This spark ignition system complies with Canadian ICES-002.



### **A WARNING**

DO NOT OPERATE WITHOUT DISCHARGE CHUTE, MULCHING
KIT, OR ENTIRE GRASS CATCHER INSTALLED 48340



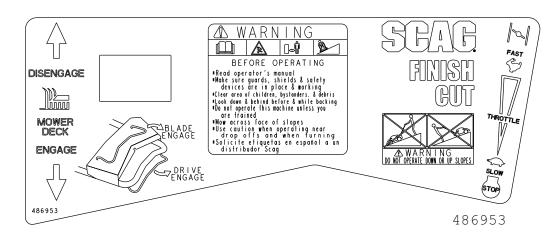














### **SPECIFICATIONS**

#### 3.1 ENGINE

Conoral Type	Heavy Duty Industrial/Commercial Casaline
Model:	Heavy Duty Industrial/Commercial Gasoline
	Kohler Command Pro CV224
•	
•	
	Kohler Command Pro CV224
3	
Displacement:	
Kohler Command Pro CV224	224cc
	4 Cycle Gasoline, Single Cylinder, Vertical Shaft
	Mechanical Type with Variable Speed Control Set At 3600 RPM
Idle Speed:	4500 DDM
Delta	Tevial cord. Sell-adjusting, Sell-tighterning
3.2 CONTROLS	
Startor	Recoil Starter
	Throttle / Choke Lever, Hourmeter
	Blade Control Bar controlled Blade Brake Clutch (BBC)
	Drive Control Bar controlled Transmission
3.3 MOWER	
Drive System	Variable Speed Transmission
	Lever Actuated Linkage to Brakes on Transmission Output Shaft
Wheels:	·
(2) Front	
(2) Drive	
Fuel Tank	1 Gallon Polyethylene Tank with Large Opening and Fuel Cap
Travel Speed:	
Forward	0 up to 4.0 MPH
	4.0 mph for transport purposes. For best cutting performance the forward
travel speed should be adjusted depe	nding upon the cutting conditions.
3.4 CUTTER DECK	
T	Adirekala Auki Caalaina III.david Daaina
Construction	14-Gauge top with 12-Gauge reinforcement throughout the spindle area, 14-Gauge skirt with 1/4" guards for strength and longevity
True Cutting Width:	the spinule area, 14-Gauge Skirt with 1/4 guards for strength and longevity
<u> </u>	30" (76.2 cm)
Blade Endagement	
Blade Engagement	

**Section 3** 



Discharge Chute	Extra Wide Discharge Opening with Discharge Chute Black, Rubber, Flexible Cast Aluminum Housing, Sealed Ball Bearing, Maintenance-Free Split Steel A-section with Kevlar Cord. Self-Adjusting, Self-Tightening Heavy Duty Blade Brake Clutch (BBC)
3.5 WEIGHTS AND DIMENSIONS	
Length w/handle in lowest position	73-1/2"
	66"
Length w/handle in storage / transport position	41"
Tracking Width	28-3/4"
Overall Width w/discharge chute	
Overall Width w/discharge block off plate	
Lowest Operating Height	
Max Operating Height	45-1/4"
	57-1/2"
	220#
	214#
Operating Weight: Side Discharging	213#
3.6 PRODUCTIVITY	
Cutting Width	20"



### **OPERATING INSTRUCTIONS**

### **A WARNING**

Do not attempt to operate this mower unless you have read this manual. Learn the location and purpose of all controls and instruments before you operate this mower.

## 4.1 CONTROLS AND INSTRUMENT IDENTIFICATION

Before operating the mower, familiarize yourself with all mower and engine controls. Knowing the location, function and operation of these controls is important for safe and efficient operation of the mower.

- 1. Recoil Start (Figure 4-1). The recoil start is used to start the engine.
- 2. Blade Control Bar (Figure 4-1). Used to engage and disengage the cutter blade drive system. Pulling the control bar will engage the cutter blades. Releasing the control bar will disengage the cutter blades.
- 3. Engine Throttle / Choke Control (Figure 4-1).

  Used to control the engine speed and choke control.

  Pushing the lever forward increases engine speed.

  Pulling the lever back decreases engine speed.

  Push the lever all the way forward past the detent to engage the choke when starting a cold engine. Full back position is the STOP position. Full forward to detent is the cutting position.

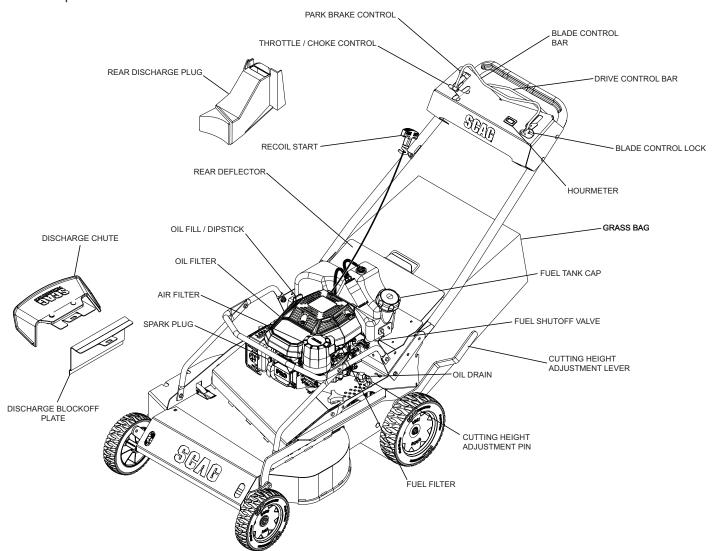


Figure 4-1. Controls and Instruments



- **4. Hourmeter (Figure 4-1).** Indicates the number of hours the engine has been operated. It operates whenever the engine is running.
- **5. Drive Control Bar (Figure 4-1).** Used to engage and disengage the mower forward drive system.
- 6. Parking Brake Control (Figure 4-1). Used to engage and disengage the parking brakes. Pull the lever back to engage the parking brake. Push the lever forward to disengage the parking brakes.
- 7. Blade Control Lock (Figure 4-1). Use to lock the blade control bar in the neutral position.
- **8. Grass Bag (Figure 4-1).** Use to bag and collect grass clippings while mowing.
- 9. Fuel Tank Cap (Figure 4-1). Use to fill the fuel tank with fuel.
- **10.** Fuel Shutoff Valve (Figure 4-1). Used to shut off fuel supply to the engine.
- **11. Oil Drain Valve (Figure 4-1).** Used to drain the oil from the engine.
- **12. Cutting Height Adjustment Lever (Figure 4-1).**Used to set the cutter deck at the desired cutting height.
- **13. Cutting Height Adjustment Pin (Figure 4-1)**. Used to set the cutter deck at the desired cutting height.
- **14. Fuel Filter (Figure 4-1).** Used to filter the fuel supply to the engine. Refer to engine owner's manual supplied with this unit when servicing.
- 15. Discharge Blockoff Plate (Figure 4-1). Used to shut off the discharge of grass clippings out of the side discharge opening. Install when mulching or using the grass bag.
- 16. Discharge Chute (Figure 4-1). Used to allow the discharge of grass clippings out of the side discharge opening. Install when side discharging.
- 17. Spark Plug (Figure 4-1). Used to supply spark to the engine. Refer to engine owner's manual supplied with this unit when servicing.
- **18. Air Filter (Figure 4-1).** Used to filter the air supply to the engine. Refer to engine owner's manual supplied with this unit when servicing.
- **19. Oil Filter (Figure 4-1).** Used to filter the oil supply in the engine. Refer to engine owner's manual supplied with this unit when servicing.

- 20. Oil Fill / Dipstick (Figure 4-1). Used to add and check the level of oil in the engine. Refer to engine owner's manual supplied with this unit when servicing.
- 21. Rear Discharge Plug (Figure 4-1). Used to shut off the discharge of grass clippings out of the rear discharge opening. Install when mulching or side discharging.
- 22. Rear Deflector (Figure 4-1). Used to hold the grass bag and rear discharge plug in place during operation.

#### 4.2 TESTING THE BLADE STOP SYSTEM

The blade stop system should be tested each time before using the machine. Check that the blades stop within 3 seconds of releasing the control bar as described below.



If the blades do not stop within 3 seconds of releasing the control bar after making an adjustment to the blade brake cable, the blade stop system may be deteriorating and if ignored could result in an unsafe operating condition. Contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system inspected and repaired.

#### **TEST USING THE GRASS BAG**

- 1. Remove the rear discharge plug.
- 2. Install the empty grass bag onto the rear of the machine.
- 3. Start the engine. Allow the engine to warm up before engaging the blades.
- 4. Engage the blades.

#### -NOTE-

The bag should begin to inflate, indicating that the blades are rotating.

- 5. Watch the bag and release the control bar.
- 6. Immediately start counting out 3 seconds and watch for the bag to deflate.



#### -NOTE-

If the bag does not deflate within 3 seconds of releasing the control bar, the blade stop system could be deteriorating or out of adjustment. Contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system repaired.

7. Shut the engine off and wait for all moving parts to stop.

#### **TEST NOT USING THE GRASS BAG**

- 1. Remove the grass bag.
- Install the rear discharge plug.
- 3. Remove the discharge block off plate and install the discharge chute.
- Move the machine onto a paved surface such as a driveway, sidewalk, parking lot or patio next to a section of grass.
- 5. Position the machine so the discharge chute is pointing towards the patch of grass and approximately 3" away. See Figure 4-2.
- 6. Start the engine. Allow the engine to warm up before engaging the blades.
- 7. Engage the blades.

#### -NOTE-

The grass next to the discharge chute should start to move from the air flow, indicating that the blades are rotating.

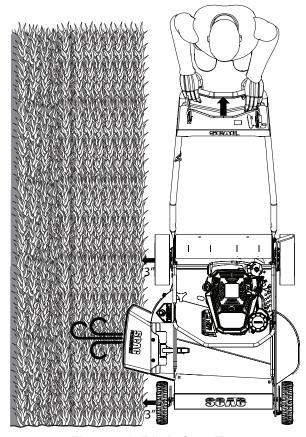


Figure 4-2. Blade Stop Test

- 8. Watch the grass and release the control bar.
- 9. Immediately start counting out 3 seconds and watch for the grass to stop moving.

#### -NOTE-

If the grass does not stop moving within 3 seconds of releasing the control bar, the blade stop system could be deteriorating or out of adjustment. Contact your local Authorized Scag Power Equipment Dealer immediately to have the blade stop system repaired.

10. Shut the engine off and wait for all moving parts to stop.



Never operate the mower with the blade stop system malfunctioning. Do not disengage or bypass any part of the blade stop system; injury to yourself and others or property damage could result.



#### **4.3 INITIAL RUN-IN PROCEDURES**

#### FIRST DAY OF USE OR APPROXIMATELY 8 HOURS

- 1. Check all belts for proper alignment and wear at 2, 4 and 8 hours.
- 2. Change the engine oil only after the first 8 hours of operation. Refer to engine owner's manual supplied with this unit when servicing.
- 3. Test the blade stop system daily before operation. See Section 4.2)
- 4. Inspect the air filter.
- 5. Check for loose hardware. Tighten as needed.
- 6. Inspect the cutter blades and service as necessary.
- 7. Check the parking brake function.
- 8. Check clutch cable function.

#### 4.4 STARTING THE ENGINE

## **A** CAUTION

DO NOT USE STARTING FLUIDS. Use of starting fluids in the air intake system may be potentially explosive or cause a "runaway" engine condition that could result in engine damage and/or personal injury.

- 1. Be sure the fuel shutoff valve, located by the fuel tank, is completely open. (See Section 7.3.)
- Move the engine throttle control to full throttle. If the engine is cold, choke the engine as needed by moving the throttle / choke control lever fully forward past the detent.
- Slowly pull starter handle until just past compression-STOP! Return starter handle firmly pull straight out to avoid excessive rope wear from starter rope guide.
- Gradually return choke control to OFF position after engine starts and warms up. Allow engine to warm before operating the mower.

#### **4.5 GROUND TRAVEL**

#### - IMPORTANT -

If you are not familiar with the operation of a machine with a variable speed transmission, the ground speed operation should be learned and practiced in an open area, away from buildings, fences, or obstructions.

Learn the operation on flat ground before operating on slopes.

Start practicing with a slow engine speed and slow forward travel.

Learn to feather the drive control bar to obtain a smooth operating action.

Practice operating the mower until you are comfortable with the controls before proceeding to mow.

#### **FORWARD TRAVEL**

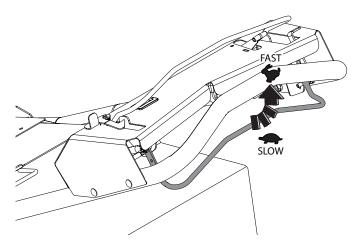


Figure 4-3. Travel Controls

- 1. Release parking brake.
- 2. Pull upward on the drive control bar.
- 3. Forward travel.

To travel forward with the mower, slowly pull upward on the drive control bar. The further the drive control bar is pulled upward the greater the forward speed will be. To decrease the speed, slowly release the drive control bar.

To stop the forward travel, release the drive control bar allowing it to return back to the neutral position.



#### - NOTE -

Smooth operation of the drive control bar will produce smooth mower operation. While learning the operation of the mower, keep the travel speed low.

### **A** CAUTION

Disengage power to the mower before backing up. Do not mow when backing up unless absolutely necessary and then only after observation of the entire area behind the mower.

### **A** CAUTION

Before backing up, observe the rear for persons and obstructions. Clear the area before backing up. Possible injury or property damage could occur.

#### 4.6 ENGAGING THE CUTTER BLADES

- Set the throttle at about 3/4 speed. Do not attempt to engage the deck drive at high speed as this shortens the belt life — use only moderate engine speed when engaging the cutter blades.
- 2. Push and hold the blade control lock lever forward to release the blade control bar. See Figure 4-4.
- 3. Quickly pull the blade control bar to the handle and release the blade control lock lever. The cutter blades should engage.

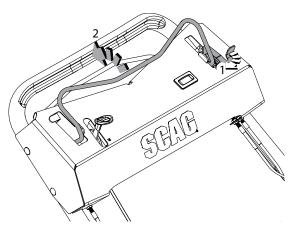


Figure 4-4. Blade Control Bar Engagement

#### - NOTE -

A squealing noise may be heard when engaging or disengaging the deck drive. It is caused by the belt during engagement and the brake pads contacting the brake drums during disengagement. This is normal. If the noise is excessive, Contact your local Authorized Scag Power Equipment Dealer immediately to have the clutch system repaired.

- To disengage the cutter blades, release the blade control bar. The blade control lock lever resets to lock the blade control bar.
- 5. Always operate the engine at full throttle to properly maintain cutting speed. If the engine starts to lug down, reduce the forward speed and allow the engine to operate at maximum RPM.

#### 4.7 SLOPE OPERATION

### **WARNING**

DO NOT operate on excessively steep slopes. ALWAYS FOLLOW OSHAAPPROVED OPERATION.

Avoid mowing in wet conditions. Wet grass or leaves can cause serious injury if you slip and contact the blades.

- This mower has been designed for good traction and stability under normal mowing conditions. However, caution must be used when traveling on slopes, especially when the grass is wet.
- To prevent tipping or loss of control, do not start or stop suddenly, avoid unnecessary turns and travel at reduced speed. If tires lose traction, disengage blades and proceed slowly off the slope.
- 3. Avoid sudden starts when mowing on slopes.
- 4. Travel across the slope whenever possible. Never up and down the slope.

#### 4.8 PARKING THE MOWER

- 1. Park the machine on a flat, level surface only. Do not park the machine on an incline.
- 2. Disengage the cutter blades.
- 3. Slow the engine to idle speed.
- 4. Engage the parking brake.
- Pull the throttle / chock control back to the OFF position.



#### 4.9 AFTER OPERATION

- 1. Always shut the engine off, wait for all moving parts to stop, and allow the mower to cool before adjusting, servicing, storing or cleaning the machine.
- 2. Wash the entire mower after each use. Do not use high pressure spray or direct the spray onto components.

#### - IMPORTANT -

Do not wash a hot or running engine. Cold water will damage the engine. Use compressed air to clean the engine if it is hot.

- 3. Keep the entire mower clean to inhibit serious heat damage to the engine or transmission.
- 4. Check the drive belts for proper alignment and any signs of wear. Correct and adjust if necessary.



To avoid injury from burns, allow the mower to cool before removing the fuel tank cap and refueling.

5. Fill the fuel tank with fresh, clean fuel at the beginning of every day of operation. See Engine Owner's Manual for proper octane requirements.

#### 4.10 REMOVING CLOGGED MATERIAL

### **A** DANGER

#### **ROTATING BLADES**

NEVER PUT YOUR HANDS INTO THE DISCHARGE CHUTE FOR ANY REASON!

Shut off the engine and remove the spark plug wire and only then use a stick or similar object to remove material if clogging has occurred.

- 1. If the discharge becomes clogged, shut off the engine and remove the spark plug wire.
- 2. Using a stick or similar item, dislodge the clogged material. Then resume normal mowing.

### 4.11 MOVING MOWER WITH ENGINE STOPPED

To "free-wheel" or move the mower around without the engine running, disengage the parking brake and move the mower by hand. When the machine is in the desired position, engage the parking brake.

#### 4.12 RECOMMENDATIONS FOR MOWING

 Do not mow with dull blades. A dull blade will tear grass, resulting in poor lawn appearance and reduced mowing power.



DO NOT operate without Discharge Chute, Mulching Kit, or entire Grass Catcher properly installed.

- 2. When side discharging, the discharge chute must not be removed. The discharge chute must be installed to deflect grass clippings and thrown objects downward. Direct the side discharge away from sidewalks or streets to minimize cleanup of clippings. When mowing close to obstacles, direct the discharge away from the obstacles to reduce the chance of property damage by thrown objects.
- When mulching, the side discharge block off plate and rear discharge plug must be completely installed.
- 4. When bagging grass, the side discharge block off plate must be installed and rear discharge plug must be removed.
- 5. Cut grass when it is dry and not too tall. Do not cut grass too short (cut off 1/3 or less of existing grass for best appearance). Mow frequently.
- 6. Keep mower and discharge chute clean.
- 7. When mowing wet or tall grass, mow the grass twice. Raise the mower to the highest setting for the first pass and then make a second pass to the desired height.
- 8. Use a slow travel speed for trimming purposes.
- Operate the engine at full throttle for best cutting. Mowing with a lower RPM causes the mower to tear the grass. The engine is designed to be operated at full speed.
- Use the alternate stripe pattern for best lawn appearance. Vary the direction of the stripe each time the grass is mowed to avoid wear patterns in the grass.



#### 4.13 ADJUSTING CUTTING HEIGHT

The mower deck can be adjusted from a height of 1-1/2 inches to 5 inches at 1/4-inch intervals. To adjust the cutting height:

### **WARNING**

DO NOT adjust the cutting height with the mower blades rotating. Disengage the power to the cutter blades and then adjust cutting height.

- 1. Disengage the power to the cutter blades.
- 2. Apply the park brake.
- 3. Lift up and forward on the cutting height adjustment lever. See Figure 4-5.

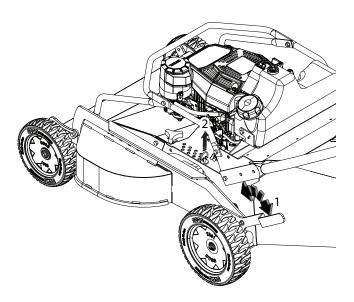


Figure 4-5. Adjusting Cutting Height

- 4. Lift the pin and insert into the cutting height index at the desired cutting height. See Figure 4-5.
- Slowly release the cutting height adjustment lever. A deck height decal is located next to the cutting height index as an aid in adjusting the deck to the desired height.

## 4.14 FRONT CASTER LOCK (IF EQUIPPED)

The front caster swivel yokes can be either locked straight or allowed to swivel by moving the pin to one of two locations.

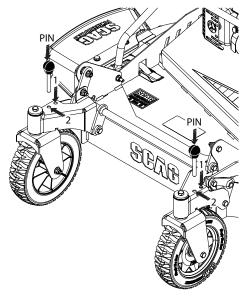


Figure 4-6. Caster Wheel Swivel / Lock

- Swivel Location.
- 2. Lock Location.



### TROUBLESHOOTING CUTTING CONDITIONS

CONDITION	CAUSE	CURE		
STRINGERS - OCCASIONAL BLADES OF UNCUT GRASS	Low engine RPM	Run engine at full RPM		
	Ground speed too fast	Slow speed to adjust for conditions		
	Wet grass	Cut grass after it has dried out		
()	Dull blades, incorrect sharpening	Sharpen blades		
	Deck plugged, grass accumulation	Clean underside of deck		
Width of Deck	Belts slipping	Adjust belt tension		
STREAKING - STRIPS OF UNCUT GRASS IN CUTTING	Dull, worn blades	Sharpen blades		
PATH	Incorrect blade sharpening	Sharpen blades		
nound formanic formanic	Low engine RPM	Run engine at full RPM		
	Belt slipping	Adjust belt tension		
	Deck plugged, grass accumulation	Clean underside of deck		
₩ Width of Deck	Ground speed too fast	Slow speed to adjust for conditions		
SGB018	Wet grass	Cut grass after it has dried out		
	Bent blades	Replace blades		
STREAKING - STRIPS OF UNCUT GRASS BETWEEN CUTTING PATHS  Width Width of of Deck Deck	Not enough overlapping between rows	Increase the overlap of each pass		



### TROUBLESHOOTING CUTTING CONDITIONS (CONT'D)

CONDITION	CAUSE	CURE
UNEVEN CUT ON FLAT GROUND - WAVY HIGH-LOW	Lift worn from blade	Replace blade
APPEARANCE, SCALLOPED CUT, OR ROUGH CONTOUR	Blade upside down	Mount with cutting edge toward ground
MANA MANA MANA MANA MANA MANA MANA MANA	Deck plugged, grass accumulation	Clean underside of deck
	Too much blade angle (deck pitch)	See your authorized SCAG dealer
	Deck mounted improperly	See your authorized SCAG dealer
₩idth of Deck	Bent spindle area	See your authorized SCAG dealer
vidin of Deck	Dull blade	Sharpen blade
UNEVEN GROUND - WAVY APPEARANCE, HIGH-LOW SCALLOPED CUT, OR ROUGH CONTOUR  Width of Deck	Uneven ground	May need to reduce ground speed, raise cutting height, and/or change direction of cut
SLOPING RIDGE ACROSS WIDTH OF CUTTING PATH	Wheels uneven	See your authorized SCAG dealer
Damanamana	Deck mounted incorrectly	See your authorized SCAG dealer
	Deck not level side-to side	See your authorized SCAG dealer
Width of Deck		



### TROUBLESHOOTING CUTTING CONDITIONS (CONT'D)

CONDITION	CAUSE	CURE		
SCALPING-BLADES HITTING DIRT OR CUTTING VERY	Bent spindle mounting area	See your authorized SCAG dealer		
CLOSE TO THE GROUND	Ground speed too fast	Slow speed to adjust for conditions		
	Cutting too low	May need to reduce ground speed, raise cutting height, change direction of cut, and/or change pitch and level		
	Rough terrain	May need to reduce ground speed, raise cutting height, and/or change direction of cut		
Width of Deck	Wet grass	Cut grass after it has dried out		
STEP CUT - RIDGE IN CENTER OF CUTTING PATH	Blades not mounted evenly	See your authorized SCAG dealer		
SARWEMEN COMMON	Bent blade	Replace blade		
	Internal spindle failure	See your authorized SCAG dealer		
Width of Deck	Mounting of spindle incorrect	See your authorized SCAG dealer		
SLOPE CUT - SLOPING RIDGES ACROSS WIDTH OF	Bent spindle mounting area	See your authorized SCAG dealer		
CUTTING PATH	Internal spindle failure	See your authorized SCAG dealer		
Width of Deck	Bent deck housing	See your authorized SCAG dealer		



### **ADJUSTMENTS**

#### **6.1 PARKING BRAKE ADJUSTMENT**

### **WARNING**

Do not operate the mower if the parking brake is not operable. Possible severe injury could result.

The parking brake should be adjusted whenever the parking brake lever is placed in the "ENGAGE" position and the parking brake will not prevent the mower from moving. If the following procedures do not allow you to engage the parking brake properly, contact your Scag dealer for further brake adjustments.

- 1. Park the machine on a flat surface. Shut the engine off and wait for all moving parts to stop.
- 2. Apply the parking brake and disconnect the spark plug wire from the spark plug.
- 3. Release the parking brake and loosen the jam nuts securing the park brake cable to the handle bar bracket. See Figure 6-1.

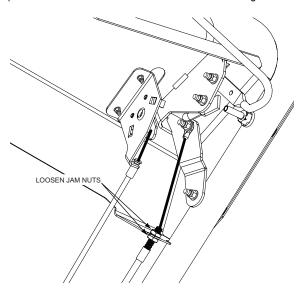


Figure 6-1. Parking Brake Cable Jam Nuts

4. Adjust the cable by moving the threaded shaft in the hole in the handle bar bracket, down to increase tension and up to decrease tension on the cable. See Figure 6-2.

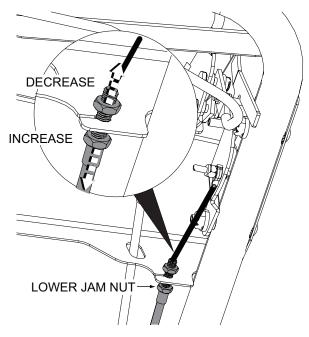


Figure 6-2. Parking Brake Cable Adjustment

- 5. Adjust the cable to increase tension until you feel slight rolling resistance in the left rear wheel.
- 6. Decrease tension slightly until the wheels roll freely.
- 7. While holding the cable in place, turn the lower jam nut until it is tight against the handle bar bracket. See Figure 6-2.
- 8. Engage the park brake lever and confirm that the rear wheel does not roll.
- 9. Adjust cable slightly if needed for proper brake function.
- 10. Tighten the jam nuts to secure the park brake cable.
- 11. Test the park brake engagement. The machine should not move when the park brake is applied.

#### - NOTE -

If this procedure does not achieve proper brake adjustment, please contact your authorized Scag dealer.



#### **6.2 BLADE BRAKE CABLE ADJUSTMENT**

### **A** CAUTION

Stop the engine and remove the spark plug wire before making any adjustments. Wait for all moving parts to come to a complete stop before beginning work.

### **A** CAUTION

The engine and drive unit can get hot during operation causing burn injuries. Allow engine and drive components to cool before making any adjustments.

An adjustment to the blade brake cable should be made whenever a new cable or belt is installed.

- 1. Shut the engine off and wait for all moving parts to stop.
- 2. Disconnect the spark plug wire from the spark plug.
- Remove the belt cover and remove any debris that has collected on the mower.
- 4. With the blade control bar in the disengaged position, adjust until there is a slight amount of tension on the cable. Adjust the tension on the cable by using the adjustment nuts. Turning the cable jacket away from the engine to decrease the tension See Figure 6-3.
- 5. Back off on the tension approximately 1/4 turn on the cable adjustment and tighten the jam nuts.

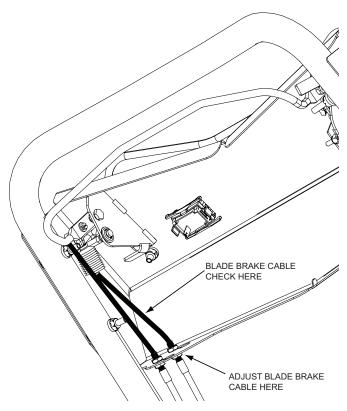


Figure 6-3. Blade Brake Cable Spring

Test the blade engagement.

#### - NOTE -

If making the adjustment as outlined does not allow for proper blade engagement or blade stop, contact your local Authorized Scag Power Equipment Dealer.

#### **6.3 SELF-PROPEL DRIVE ADJUSTMENT**

An adjustment to the self-propel drive cable should be made whenever a new cable or belt is installed.

- 1. Shut the engine off and wait for all moving parts to stop.
- Disconnect the spark plug wire from the spark plug.
- 3. If the grass catcher bag is installed, remove it from the mower.
- Using a piece of scrap material, broom handle or other object wider that the handle bars, lift and support the rear cover to gain access to the rear of the mower. See Figure 6-4.



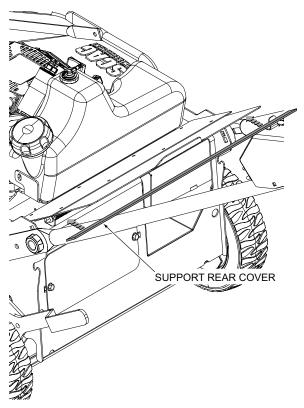


Figure 6-4. Lift and Support Rear Cover

- Remove the two bolts securing the transmission access cover to the mower.
- 6. Remove the transmission access cover and remove any debris that has collected on the transmission. See Figure 6-5.

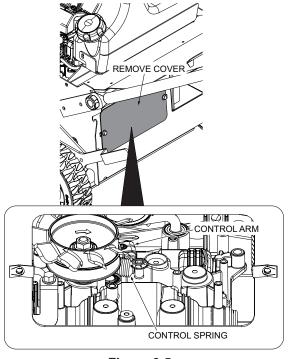


Figure 6-5.

7. Loosen the jam nuts securing the self-propel drive cable to the handle bar bracket. See Figure 6-6.

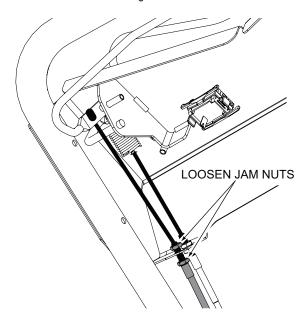


Figure 6-6. Self-Propel Drive Cable Jam Nuts

- Adjust the cable by moving the threaded shaft in the hole in the handle bar bracket, down to increase tension and up to decrease tension on the cable. See Figure 6-8.
- 9. Adjust the cable until you see a slight movement in the control arm and spring on the transmission. See Figure 6-7.

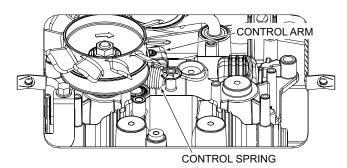


Figure 6-7. Transmission Control Arm and Spring

- 10. Decrease the cable tension back until the movement on the control arm and spring has stopped.
- 11. While holding the cable in place, turn the lower jam nut until it is tight against the handle bar bracket. See Figure 6-8.



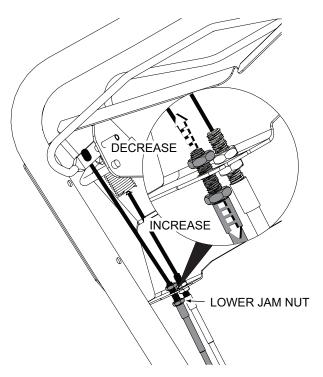


Figure 6-8. Self-Propel Drive Cable Adjustment

- 12. Tighten the jam nuts to secure the cable.
- 13. Reinstall the transmission access cover and secure with the two bolts.
- 14. Test the drive engagement. The machine should not move when the drive control bar is released.

#### - NOTE -

If making the adjustment as outlined does not allow for proper self-propel operation, contact your local Authorized Scag Power Equipment Dealer.

## 6.4 THROTTLE CONTROL AND CHOKE ADJUSTMENTS

These adjustments must be performed by your Authorized Scag Power Equipment Dealer to ensure proper and efficient running of the engine. Should either need adjustment, contact your authorized Scag service center.

#### **6.5 TRANSMISSION DRIVE BELT**



Before removing any guards, shut the engine off and remove the spark plug wire from the spark plug.

The transmission drive belt is spring loaded and self-tensioning, however after the first 2, 4, 8 and 10 hours of operation, the belt should be checked for proper alignment and wear. Thereafter, check the belts after every 40 hours of operation or weekly, whichever occurs first.

#### **6.6 CUTTER DECK BELT ADJUSTMENT**



Before removing any guards, shut the engine off and remove the spark plug wire from the spark plug. Wait for all moving parts to come to a complete stop before beginning work.

- 1. Remove the belt cover.
- 2. Adjust the tension by tightening or loosening the adjustment bolt. See Figure 6-9.
- Adjust the belt so that the belt moves between 3-1/2" to 3-3/4" when applying pressure. Apply pressure to the belt and measure from the back edge of the belt to the rib on the cutter deck as shown. See Figure 6-9.



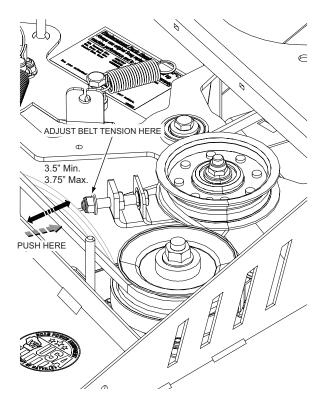


Figure 6-9. Deck Drive Belt Adjustment

#### -NOTE-

Due to initial belt stretch and to prevent the belt from slipping, check this adjustment after the first 2 hours, 4 hours and 8 hours of operation.

4. Reinstall the belt cover after the adjustments have been made.

#### **6.7 BELT ALIGNMENT**

Belt alignment is important for proper performance of your Scag mower. If you experience frequent belt wear or breakage, see your authorized Scag service center for belt adjustment.

#### **6.8 CUTTER DECK ADJUSTMENTS**

The mower is designed to bag, mulch or side discharge the grass clippings. During the assembly process at the factory the mower has been set up to bag the grass clippings with grass collection baffles installed. If the mower has been converted to either mulch or side discharge, the grass collection baffles must be reinstalled on the cutter deck prior to bagging the grass clippings. See Figure 6-10 for grass collection baffle location.

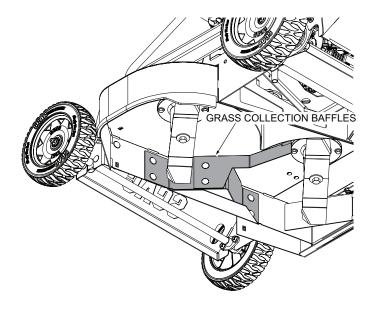


Figure 6-10. Grass Collection Baffle

#### -IMPORTANT-

Failure to install the grass collection baffles will result in poor bagging perfomance.

If additional information or service is needed, contact your Scag Power Equipment Dealer.



#### **MULCHING THE CLIPPINGS**

To convert from bagging grass and prepare the mower to mulch the grass clippings:

1. Lift the rear cover and remove the grass collection bag from the mower. See Figure 6-11.

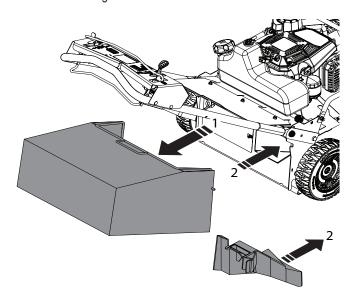


Figure 6-11. Mulch Conversion

2. Insert the rear discharge plug into the cutter deck. See Figure 6-11.

#### -NOTE-

For the best mulching performance, remove grass collection baffles from the cutter deck.

#### SIDE DISCHARGE THE CLIPPINGS

To convert from bagging grass and prepare the mower to side discharge the grass clippings:

- 1. Lift the rear cover and remove the grass collection bag from the mower. See Figure 6-11.
- Insert the rear discharge plug into the cutter deck. See Figure 6-11
- 3. Release the latch and remove the discharge block off plate. See Figure 6-12.

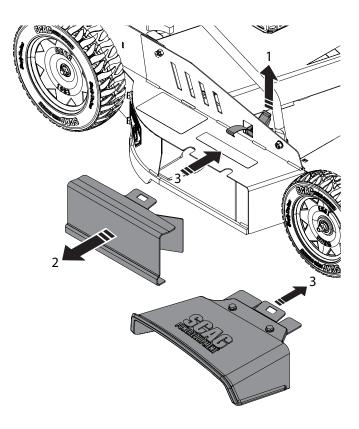


Figure 6-12. Side Discharge Conversion

4. Install the side discharge chute and secure with the latch.

#### -NOTE-

For the best side discharge performance, remove grass collection baffles from the cutter deck.



#### **BAG THE CLIPPINGS**

To convert and prepare the mower back to bagging the grass clippings:

- 1. Lift the rear cover and remove the rear discharge plug from the cutter deck. See Figure 6-13.
- Reinstall the grass collection bag onto the mower. See Figure 6-13

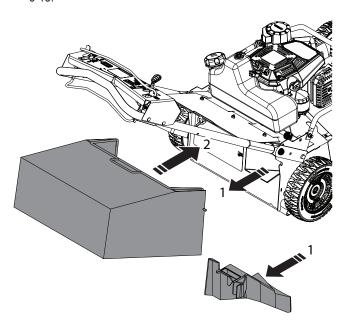


Figure 6-13. Bagging Grass

- The discharge block off plate will need to be installed. See Figure 6-14.
- 4. Install the discharge block off plate all the way forward in the opening and secure with the latch.

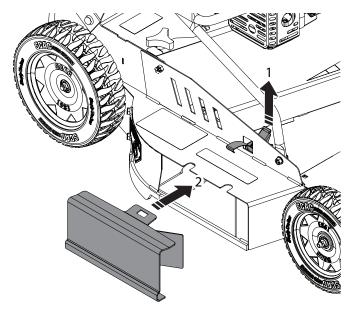


Figure 6-14. Discharge Block Off Plate

5. Reinstall the grass collection baffles from the cutter deck. See Figure 6-15.

#### -IMPORTANT-

If the mower has been converted to either mulch or side discharge, the grass collection baffles must be reinstalled on the cutter deck prior to bagging the grass clippings.

Failure to install the grass collection baffles will result in poor bagging perfomance.

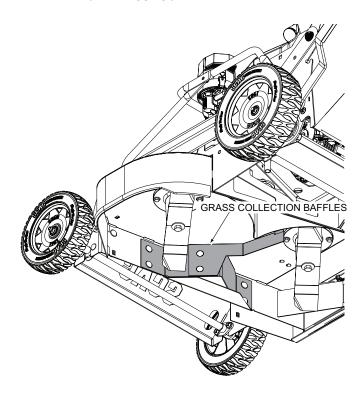


Figure 6-15. Grass Collection Baffle

6. Secure the grass collection baffles using 5/16-18 x 3/4" carriage bolts and 5/16-18 elastic stop nuts.



# MAINTENANCE 7.1 MAINTENANCE CHART - RECOMMENDED SERVICE INTERVALS

HOURS									
BREAK-IN (FIRST 10)	8	40	50	100	150	200	400	PROCEDURE	COMMENTS
Х								Check all hardware for tightness	
Х								Check all belts for proper alignment	See paragraph 7.5
	Х							Change engine oil	See paragraph 7.2
	Х							*Clean mower	See paragraph 7.8
	Х							Check condition of blades	See paragraph 7.6
	Х							Check blade stop system	See paragraph 4.2
	Х							Check the blade brake cable tension. Adjust as needed.	See paragraph 6.2
		х						Inspect transmission drive belt. Replace every 400 hours or 2 years, whichever occurs first.	See paragraph 6.5 & 7.5
		Х						Check belts for proper alignment	See paragraph 7.5
		х						Clean and lubricate the rear drive wheels	See paragraph 7.7
			Х					Change engine oil - Perform after every 50 hours of operation	See paragraph 7.2
				Х				Check condition of fuel lines	
				Х				Change engine oil and filter - Perform after every 100 hours of operation	See paragraph 7.2
				Х				*Clean air cleaner element	See paragraph 7.4
					Х			Change engine oil - Perform after every 50 hours of operation	See paragraph 7.2
						Х		Check all hardware for tightness	
						Х		Change engine oil and filter - Perform after every 100 hours of operation	See paragraph 7.2
							Х	Replace transmission drive belt	See paragraph 7.5

<sup>\*</sup> Perform these maintenance procedures more frequently under extreme dusty or dirty conditions



#### 7.2 ENGINE OIL

## A. CHECKING ENGINE CRANKCASE OIL LEVEL

The engine oil level should be checked after every 8 hours of operation or daily as instructed in the Engine Operator's Manual furnished with this mower.

#### **B. CHANGING ENGINE CRANKCASE OIL**

After the first 8 hours of operation, change the engine crankcase oil. Thereafter, change the engine crankcase oil after every 50 hours of operation or yearly, whichever occurs first. Refer to the Engine Operator's Manual furnished with this mower for instructions.

#### C. CHANGING ENGINE OIL FILTER

Replace the oil filter after every 100 hours of operation. Refer to Engine Operator's Manual for instructions.

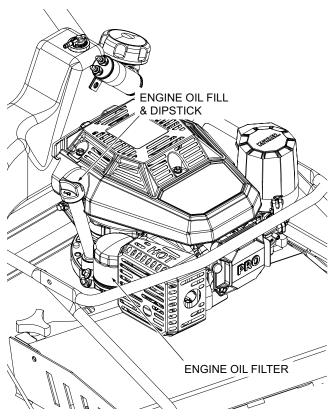


Figure 7-1. Oil Fill / Dipstick, Oil Filter

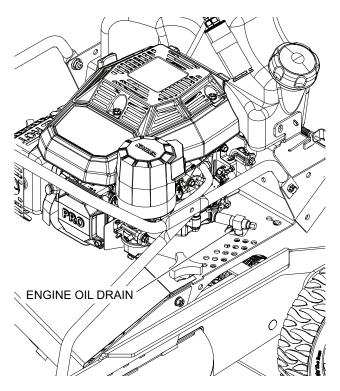


Figure 7-2. Oil Fill / Dipstick, Oil Filter, Oil Drain

#### 7.3 ENGINE FUEL SYSTEM

### **A DANGER**

To avoid injury from burns, allow the mower to cool before removing the fuel tank cap and refueling.

#### A. FILLING THE FUEL TANK - EXCLUDING CA MODELS

Use clean, fresh unleaded gasoline with a minimum octane rating of 87 and a maximum of 10% Ethanol.

Fill to the bottom of the filler neck (approximately 1 gallon) at the beginning of each operating day. See Figure 7-3.

DO NOT over fill. The empty space in the fuel tank allows the fuel to expand. Overfilling the fuel tank may result in fuel leakage, damage to the engine and/or damage to the machine's emissions system.

DO NOT use E85 Fuel. Using E85 Fuel will cause severe damage to the engine.



To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

Extinguish all cigarettes, cigars, pipes and other sources of ignition.

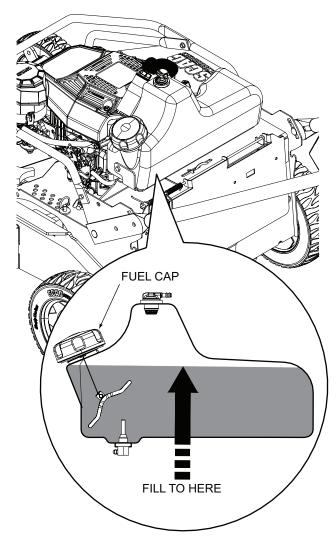


Figure 7-3. Fuel Tank Fill Level

- 1. Use only an approved gasoline container.
- NEVER remove the gas cap or add fuel with the engine running. Allow the engine to completely cool before fueling.
- 3. NEVER fuel the machine indoors or in an enclosed trailer.
- 4. DO NOT start the engine until any spilled fuel has been cleaned up or has evaporated.

- 5. NEVER store the machine or fuel container where there is an open flame, spark or pilot light such as on a water heater or other appliances.
- NEVER fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- 7. Remove the machine from the truck or trailer and fuel on level ground. If this is not possible, then refuel the machine with a portable container, rather than from a gasoline dispenser nozzle.
- 8. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- 9. If fuel is spilled on clothing, change clothing immediately and wash affected skin.
- 10. NEVER over fill the fuel tank. Replace gas cap and tighten the fuel cap until it ratchets.

# B. REPLACING IN-LINE FUEL FILTER ELEMENTS

The engine fuel filter should be replaced as recommended by the engine manufacturer. Refer to Engine Operator's Manual.

- 1. Close the shut-off valve. See Figure 7-4
- 2. Remove and replace the engine fuel filter. Open the fuel shut-off valve.

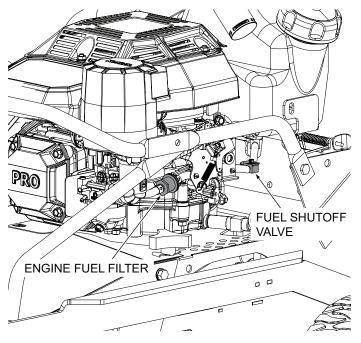


Figure 7-4. Fuel Filter



#### 7.4 ENGINE AIR CLEANER

# A. CLEANING AND/OR REPLACING AIR CLEANER ELEMENT

For any air cleaner, the operating environment dictates the air cleaner service periods. Service and clean the air filter pre-cleaner after every 50 hours of operation. Replace the air cleaner element and pre-cleaner after every 300 hours or yearly, whichever comes first. Refer to Engine Operator's Manual.

#### - NOTE -

In extremely dusty conditions it may be necessary to check the element once or twice daily to prevent engine damage.

- 1. Lift up on the latch securing the air cleaner cover to the air cleaner assembly. See Figure 7-5.
- 2. Remove and inspect the air filter. Replace as recommended by the engine manufacturer. Refer to Engine Operator's Manual.
- 3. Replace the air cleaner cover and secure.

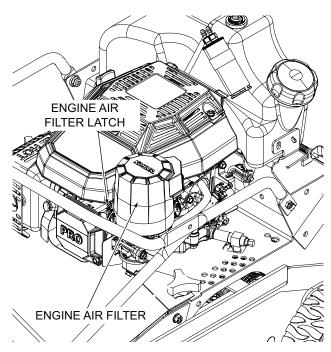


Figure 7-5. Engine Air Filter

#### 7.5 DRIVE BELTS

All drive belts are spring-loaded and self-tensioning, however after the first 2, 4, 8 and 10 hours of operation, the belts should be checked for proper alignment and wear. Thereafter, check the belts after every 40 hours of operation or weekly, whichever occurs first.

#### - NOTE -

If you experience frequent belt wear or breakage, see your authorized Scag service center for belt adjustment.

#### 7.6 CUTTER BLADES

#### A. BLADE INSPECTION

- Remove the spark plug wire before servicing the blades.
- 2. Raise the mower deck to the highest position. Place the lanyard pin in the highest cutting height position to prevent the cutter deck from falling.

# **WARNING**

Mower blades are sharp. Always wrap blades, wear proper hand and eye protection when working with cutter blades.

- 3. Check the cutter blades for straightness. If the cutter blades appear bent, they will need to be replaced.
- Check the cutter blades for wear. If any part of the cutter blade is worn to 1/2 its original thickness, replace the cutter blade.

# **A** WARNING

Do not attempt to straighten a bent blade, and never weld a broken or cracked blade. Always replace it with a new blade to assure safety.

If a blade cutting edge is dull or nicked, it should be sharpened. Remove the blades for sharpening. See "Blade Replacement."



#### - NOTE -

Keep the blades sharp. Cutting with dull blades not only yields a poor mowing job, but slows the cutting speed of the mower and causes extra wear on the engine and the blade drive by pulling hard.

#### **B. BLADE SHARPENING**

#### - NOTE -

If possible, use a file to sharpen the blade. Using a wheel grinder may burn the blade.

#### - NOTE -

DO NOT sharpen the blades beyond 1/3 of the width of the blade. See Figure 7-6.

1. Sharpen the cutting edge at the same bevel as the original. See Figure 7-6. Sharpen only the top of the cutting edge to maintain sharpness.

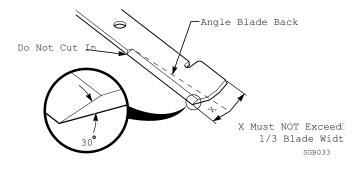


Figure 7-6. Blade Sharpening

 Check the balance of the blade. If the blades are out of balance, vibration and premature wear can occur. The cutter blades should be balanced to 1-1/2 oz-in. See your authorized Scag dealer for blade balancing or special tools, if you choose to balance your own blades.

#### C. BLADE REPLACEMENT

# **A** WARNING

Mowers blades are sharp. Always wrap blades, wear proper hand and eye protection when working with cutter blades.

1. Shut the engine off and wait for all moving parts to stop.

- 2. Disconnect the spark plug wire from the spark plug.
- 3. Raise the mower deck to the highest position. Place the lanyard pin in the highest cutting height position to prevent the cutter deck from falling.
- Secure the cutter blades to prevent them from rotating, remove the blade attaching bolt. Remove the cutter blade, bolt and flatwasher from the spindle shaft. See Figure 7-7.

# **A** CAUTION

Inspect the cutter blade washer for wear and/or cupping. Replace the worn parts. Worn washer will not allow proper tightening of the cutter blade and can lead to cutter blade failure, personal injury or property damage.

5. To install the new cutter blade, put the flatwasher onto the blade bolt and install the bolt into the hole in the cutter blade.

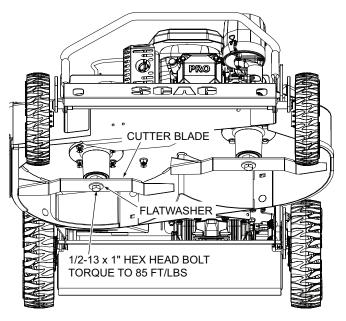


Figure 7-7. Blade Replacement

#### - NOTE -

Be sure that the blade is installed with the lift wing toward the top.

Install the cutter blade onto the cutter spindle shaft.
 Secure the blades from rotating and torque to 85 ft/lbs. See Figure 7-7.



#### 7.7 WHEELS

The rear drive wheels should be removed and any debris cleaned from the wheel gear area after every 40 hours of operation or weekly, whichever comes first.

#### - NOTE -

In extremely dusty conditions it may be necessary to clean the wheels more frequently than recommended to prevent wheel damage and increase gear life.

To prevent damage to the wheel bearings, do not use high-pressure water to clean the wheels.

- Remove the rear wheels and clean any debris from the wheel area.
- 2. After cleaning the wheels, apply a small amount of anti-seize lubricant to the gears.

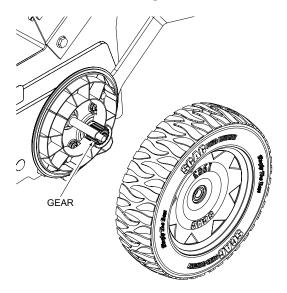


Figure 7-8. Rear Wheels

#### 7.8 BODY AND DECK



## **A** CAUTION

Do not wash any portion of the equipment while it is hot. Do not wash the engine; use compressed

- 1. After each use, wash the mower and cutter deck. Use cold water and automotive cleaners. Do not use pressure cleaners.
- Do not spray electrical components.
- Repair damaged metal surfaces using Scag touchup paint available from your authorized Scag dealer. Wax the mower for maximum paint protection.



### **ILLUSTRATED PARTS LIST**

#### **8.1 SCAG APPROVED ATTACHMENTS AND ACCESSORIES**

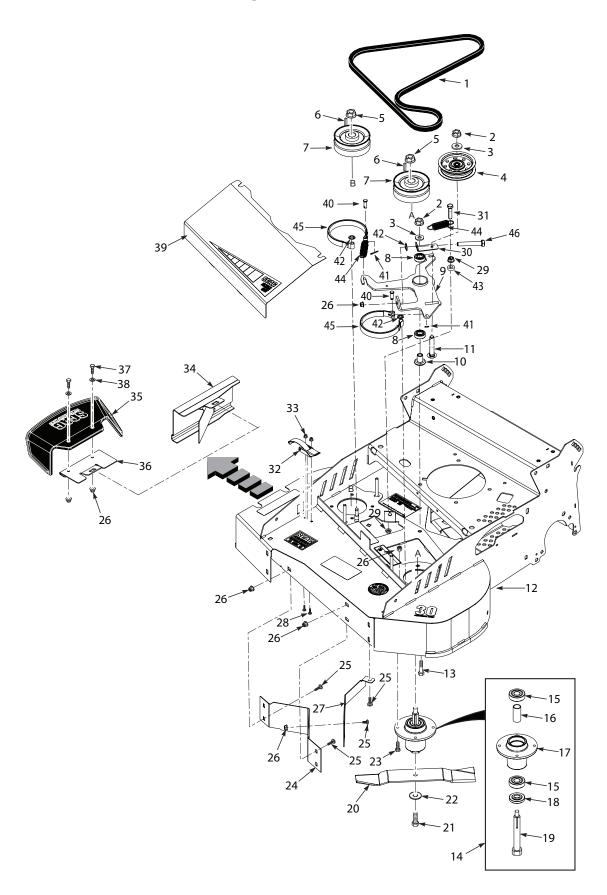
Attachments and accessories manufactured by companies other than Scag Power Equipment are not approved for use on this machine.

Scag approved attachments and accessories:

<u>Accessories</u>	<u>P/N</u>
Grass Catcher	Included
Mulching Baffle & Block-Off Plate	Included
Swivel Front Caster	925H



### **CUTTER DECK**



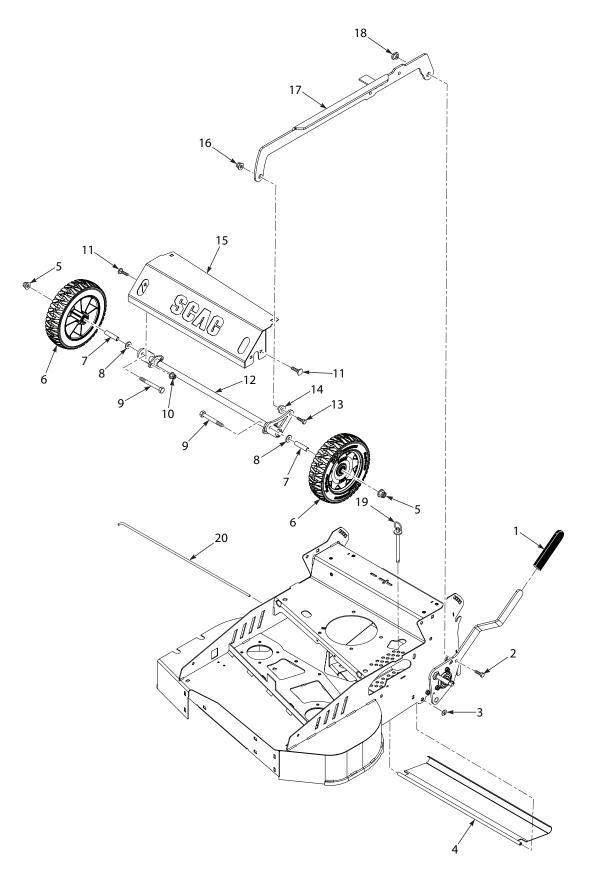


### **CUTTER DECK**

Ref. No.	Part No.	Description
1	486708	Belt, Deck
2	04117-02	Nut, 3/8-16 Flange Elastic Stop
3	04043-04	Flatwasher, 3/8391 x .938 x .105
4	486869	Pulley, Idler 3-1/2"
5	04112-05	Nut, 1/2-13 Spiral Lock
6	04063-05	Key, 3/16 x 3/16 x 1-1/2"
7	487239	Pulley, Deck
8	48224	Bearing
9	463456	Idler Arm Assembly (incl. #8, #9, #26, #40, #41, #42, #45, #46, #47)
10	43689	Pivot, Idler
11	04003-03	Bolt, Carriage 3/8" - 16 x 2"
12	463488	Cutter Deck w/ Decals
13	04001-45	Bolt, Hex Head 3/8-16 x 2"
14	463271	Spindle Assembly
15	486710	Bearing
16	431115	Spacer, Bearing
17	431112	Housing, Spindle
18	431114	Bearing Protector
19	431113	Spindle Shaft
20	486882	Cutter Blade, 15-1/4"
21	04001-57	Bolt, Hex Head 1/2-13 x 1"
22	04043-08	Flatwasher, 1/2562 x .375 x .109 HD
23	04001-09	Bolt, 5/16-18 x 1"
24	428655	Baffle, Rear Discharge
25	04003-12	Bolt, Carriage 5/16-18 x 3/4"
26	04117-01	Nut, 5/16-18 Flange Elastic Stop
27	428654	Baffle, Rear Discharge
28	04003-43	Bolt, Carriage #10-24 x 1/2"
29	04019-04	Nut, 3/8-16 Serrated Flange
30	429087	Bracket, Adjustable
31	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Gr.8
32	481309	Latch
33	04021-26	Nut, #10-24 Elastic Stop
34	453217	Weldment, Block-Off Plate
35	463350	Discharge Chute Assembly (incl. #36, #37, #38)0
36	428531	Mounting Bracket, Discharge Chute
37	04001-09	Bolt, Hex Head 5/16-18 x 1"
38	04040-04	Flatwasher, 5/16344 x .688 x .065
39	463377	Belt Cover w/Decals
40	04064-22	Pin, Clevis 5/16" x 7/8"
41	04061-02	Pin, Cotter 3/32" x 3/4"
42	04024-03	Nut, Push On
43	43063	Spacer
44	487240	Spring, Brake
45	487231	Brake Band
46	04001-218	Bolt, Hex Head 5/16 - 18 x 2"



### **CUTTER DECK LIFT SYSTEM - FIXED WHEEL**



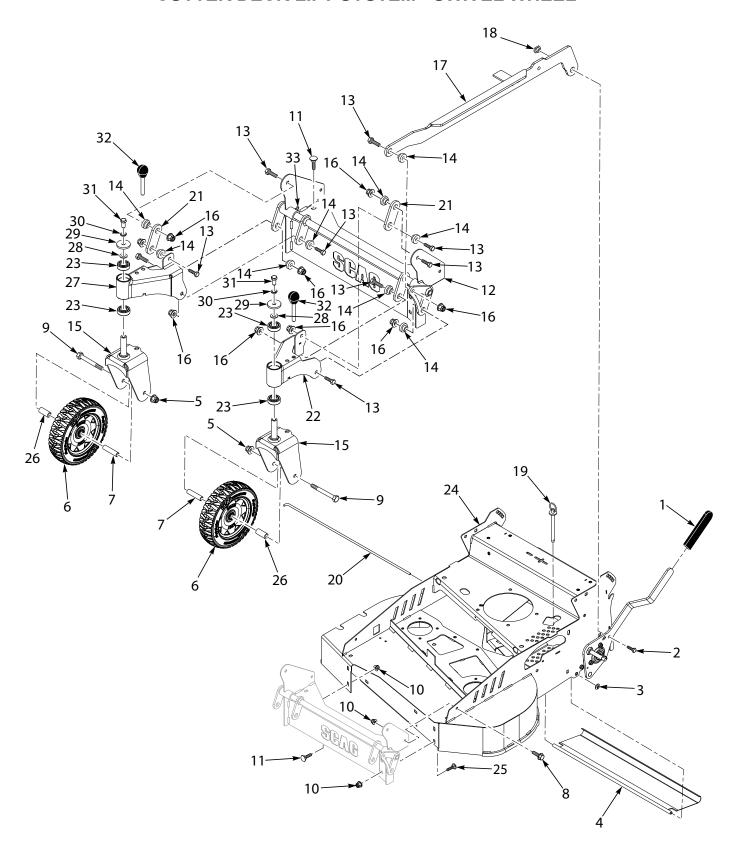


### **CUTTER DECK LIFT SYSTEM - FIXED WHEEL**

Ref. No.	Part No.	Description
1	486932	Grip, Deck Lift
2	04001-18	Bolt, Hex Head 3/8-16 x 3/4"
3	04024-03	Push Nut
4	463381	Trail Shield
5	04117-02	Nut, 3/8-16 Flange Elastic Stop
6	486702	Wheel Assembly, Front
	486765	Bearing (x2)
7	431123	Spacer, Front Wheel
8	04043-04	Flatwasher, 3/8391 x .938 x .105 HD
9	04001-22	Bolt, Hex Head 3/8-16 x 2-3/4"
10	04117-01	Nut, 5/16-18 Flange Elastic Stop
11	04003-12	Bolt, Carriage 5/16-18 x 3/4"
12	453171	Weldment, Front Axle
13	04001-32	Bolt, Hex Head 3/8-16 x 1-1/4"
14	43086	Bushing
15	453219	Weldment, Front Axle Support
16	04117-02	Nut, 3/8-16 Flange Elastic Stop
17	453212	Weldment Deck Lift
18	431125	Pivot, Deck Weldment
19	04067-14	Ring Pin, 3/8 x 4"
20	44246	Rod, Trail Shield



#### **CUTTER DECK LIFT SYSTEM - SWIVEL WHEEL**



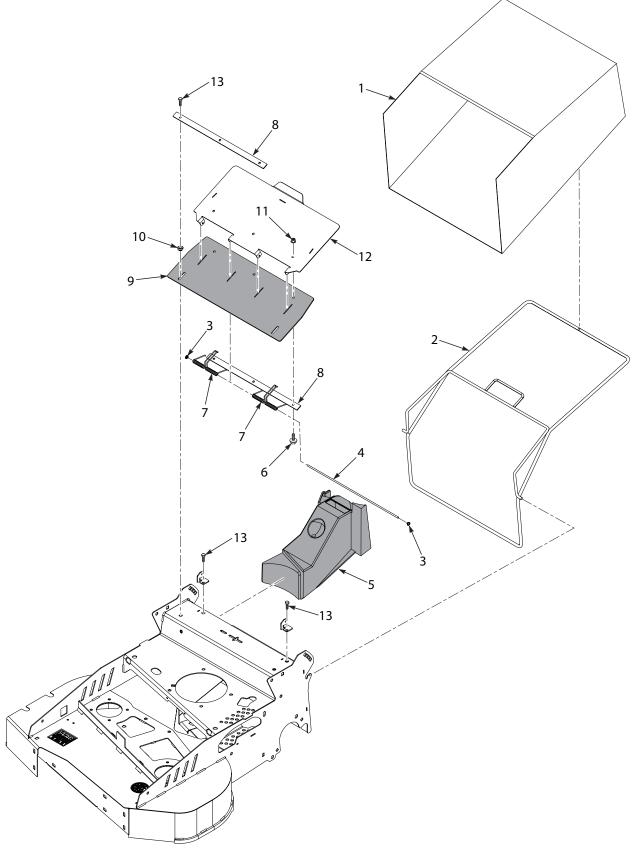


### **CUTTER DECK LIFT SYSTEM - SWIVEL WHEEL**

Ref. No.	Part No.	Description
1	486932	Grip, Deck Lift
2	04001-18	Bolt, Hex Head 3/8-16 x 3/4"
3	04024-03	Push Nut
4	463381	Trail Shield
5	04117-02	Nut, 3/8-16 Flange Elastic Stop
6	486702	Wheel Assembly, Front
	486765	Bearing (x2)
7	431123	Spacer, Front Wheel
8	04017-17	Bolt, Hex Head 5/16-18 x 1"
9	04001-30	Bolt, Hex Head 3/8-16 x 4"
10	04117-01	Nut, 5/16-18 Flange Elastic Stop
11	04003-12	Bolt, Carriage 5/16-18 x 3/4"
12	453284	Caster Lift Support Weldment
13	04001-32	Bolt, Hex Head 3/8-16 x 1-1/4"
14	43086	Bushing
15	453285	Yoke Weldment
16	04117-02	Nut, 3/8-16 Flange Elastic Stop
17	453283	Weldment Deck Lift
18	431125	Pivot, Deck Weldment
19	04067-14	Ring Pin, 3/8 x 4"
20	44246	Rod, Trail Shield
21	428786	Bracket, Link
22	453286	Yoke Support Weldment, LH
23	48224	Bearing
24	463488	Frame Assembly w/Decals
25	04003-04	Bolt, Carriage 5/16-18 x 1"
26	431047	Spacer
27	453287	Yoke Support Weldment, RH
28	04040-05	Flatwasher, 3/8406 x .812 x .065
29	04041-11	Flatwasher, 3/8406 x 1.50 x 7 Ga.
30	04030-04	Lockwasher, 3/8"
31	04001-18	Bolt, Heax Head 3/8-16 x 3/4"
32	487102	Pin Assembly, Swivel Lock
33	48114-04	Grease Fitting



### **BAG AND REAR DOOR COMPONENTS**



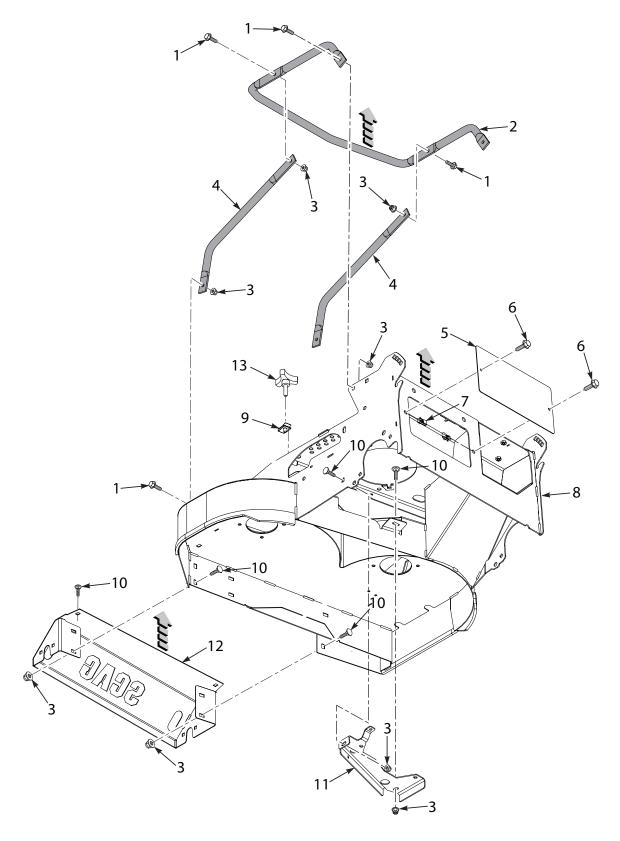


### **BAG AND REAR DOOR COMPONENTS**

Ref. No.	Part No.	Description
1	463362	Assembly, GC Bag (incl. #2)
	486772	GC Bag Only
2	453245	Weldment, Bag Support
3	04024-05	Nut, Push-on
4	428520	Pin, Pivot
5	486891	Blockoff Plug
6	04001-01	Bolt, Hex Head 1/4-20 x 3/4"
7	486828	Spring, Rear Cover
8	428675	Plate, Clamp
9	486829	Gasket, Rear Cover
10	431137	Pivot
11	04117-03	Nut, 1/4-20 Flange Elastic Stop
12	453247	Rear Cover Weldment
13	04001-01	Bolt, Hex Head 1/4-20 x 3/4"



### **CHASSIS COMPONENTS**





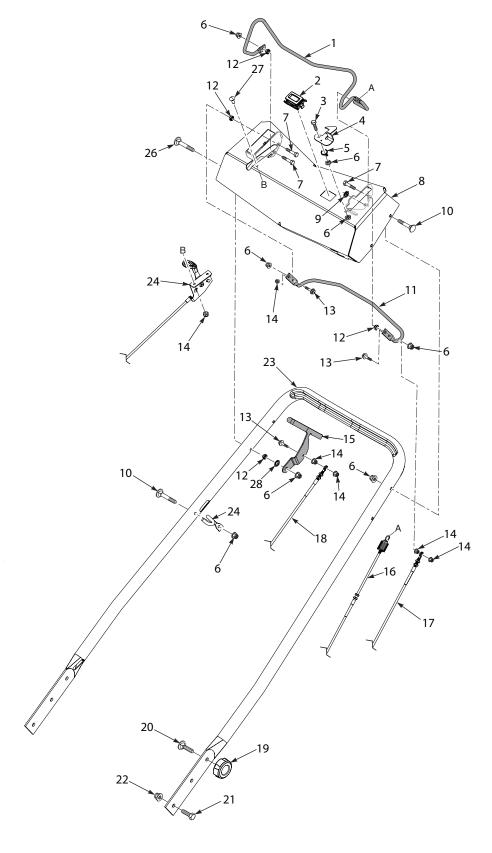


### **CHASSIS COMPONENTS**

Ref. No.	Part No.	Description
1	04017-16	Bolt, Hex Head Serrated Flange 5/16-18 x 3/4"
2	428545	Guard, Engine
3	04117-01	Nut, 5/16-18 Flange Elastic Stop
4	428546	Guard Bracket, Side
5	428514	Cover, Transmission Access
6	04017-04	Bolt, Hex Head Serrated Flange 1/4-20 x 1/2"
7	04110-01	U-Nut, 1/4-20
8	463440	Frame Weldment w/Decals
9	04110-03	U-Nut, 3/8-16 U-Nut, 3/8-16
10	04003-12	Bolt, Carriage 5/16-18 x 3/4"
11	428398	Mounting Bracket, Transmission
12	453219	Weldment, Front Axle Support (fixed axle shown)
13	481625-01	Knob w/Stud, 3/8-16 x 1-1/4"



### **HANDLE BAR COMPONENTS**



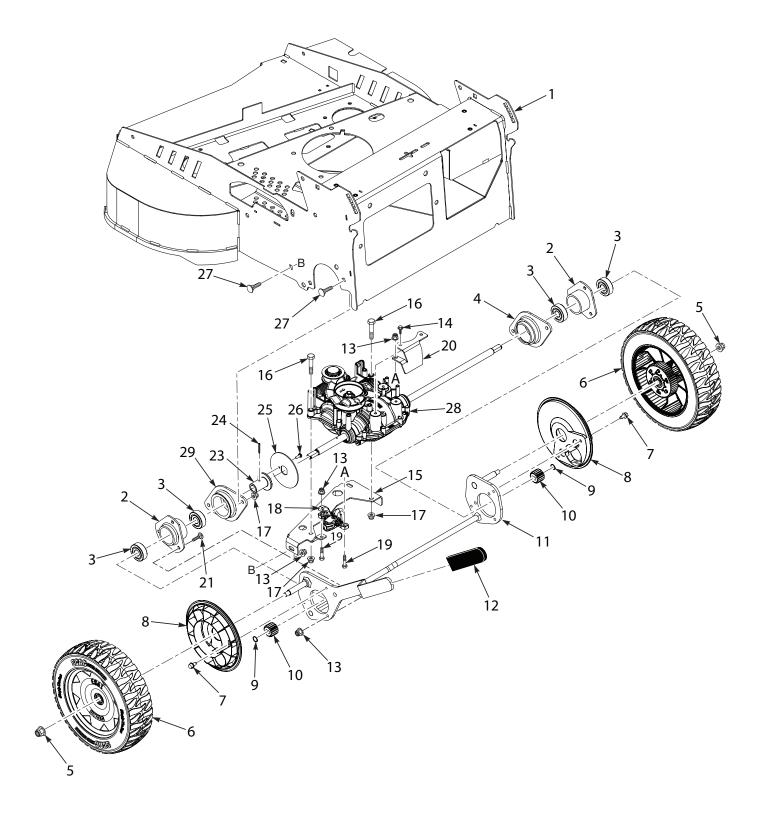


### **HANDLE BAR COMPONENTS**

Ref. No.	Part No.	Description
1	44234	Control, Deck
2	486912	Hourmeter
3	04001-14	Bolt, Hex Head 1/4-20 x 1"
4	428566	Latch, PTO
5	483507	Spring
6	04117-03	Nut, 1/4-20 Flange Elastic Stop
7	04001-01	Bolt, Hex Head 1/4-20 x 3/4"
8	463376	Instrument Panel w/Decal
9	04024-03	Nut, Push-on 5/16"
10	04003-51	Bolt, Carriage 1/4-20 x 2"
11	44235	Control, Drive
12	431137	Pivot
13	04010-47	Screw, #10-24 x 1" HD Slotted
14	04021-26	Nut, Elastic Stop #10-24
15	428634	Bracket, Brake Handle
16	487246	Cable, Deck
17	486928	Cable, Drive
18	486929	Cable, Brake
19	481885-08	Knob, 3/8-16 x 2.48 OD
20	04003-31	Bolt, Carriage 3/8-16 x 3/4"
21	04013-05	Bolt, Flange 3/8-16 x 3/4"
22	04117-02	Nut, 3/8-16 Flange Elastic Stop
23	486714	Handle
24	486930	Cable, Throttle
25	44201	Guide, Pull Rope
26	04003-52	Bolt, Carriage 1/4-20 x 2-1/2" Full Thread
27	04003-43	Bolt, Carriage #10-24 x 1/2"
28	04032-07	Washer, Curved



### **REAR DRIVE SYSTEM COMPONENTS**



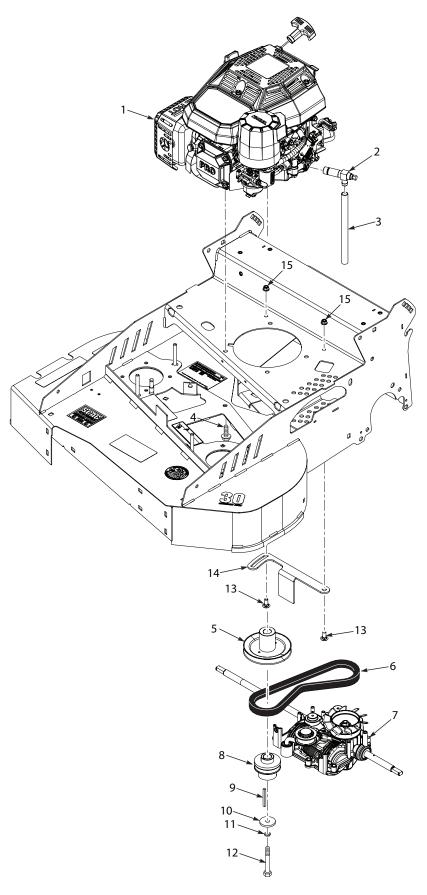


### **REAR DRIVE SYSTEM COMPONENTS**

Ref. No.	Part No.	Description
1	463488	Frame Weldment w/Decals
2	463320	Axle Bearing Assembly (incl. #3)
3	486709	Bearing
4	463439	Assembly, Axle Pivot - RH
	483453-30	Bearing
5	04117-02	Nut, 3/8-16 Flange Elastic Stop
6	486978	Wheel Assembly, Rear (incl. gear and bearings) 10-1/2" Dia.
	486765	Bearing (x2)
	486907	Gear
7	04011-29	Screw, 1/4-20 x 3/8"
8	486923	Cover, Rear Wheel
9	04050-20	Retaining Ring, 1/2" Ext. HD
10	486719	Gear, Pinion
11	453288	Weldment, Rear Axle
12	486932	Grip, Deck Lift
13	04117-03	Nut, 1/4-20 Flange Elastic Stop
14	04011-35	Screw, 1/4-20 x 3/4" Taptite
15	428398	Mounting Bracket, Transmission
16	04001-11	Bolt, Hex Head 5/16-18 x 1-1/2"
17	04117-01	Nut, 5/16-18 Flange Elastic Stop
18	486924	Caliper, Brake
19	04001-14	Bolt, Hex Head 1/4-20 x 1"
20	428829	Bracket, Brake Caliper
21	04003-02	Bolt, Carriage 1/4-20 x 3/4"
22	463321	Assembly, Axle Pivot - LH
23	463364	Rotor Assembly, Brake (incl.#25, #26)
24	04135-01	Pin, 3mm x 26mm Slotted
25	428643	Disk, Brake
26	04011-16	Screw, #10-32 x 1/2"
27	04003-12	Bolt, Carriage 5/16-18 x 3/4"
28	486697	Transmission, MV702
29	463438	Assembly, Axle Pivot - LH



### **ENGINE AND ATTACHING PARTS**





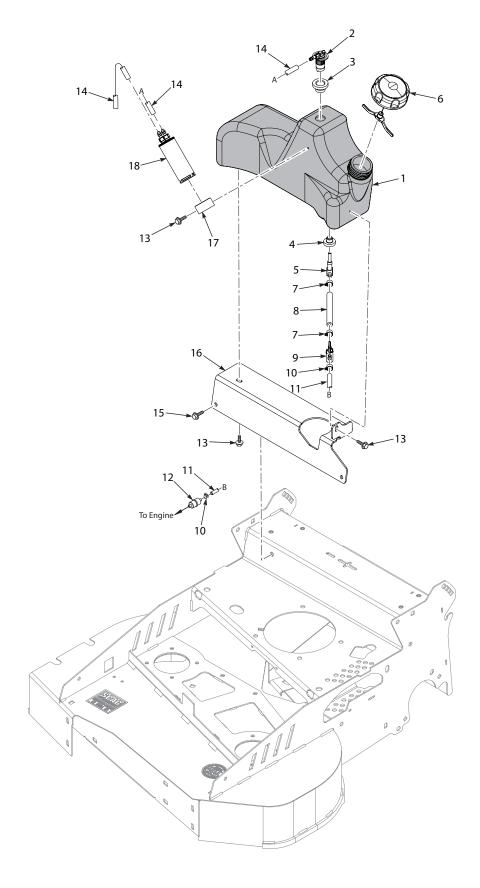
### **ENGINE AND ATTACHING PARTS**

Ref. No.	Part No.	Description
1	*486698	Engine, Kohler CV224
2	482510	Oil Drain
3	483280	Tubing, OII Drain (order by inch)
4	04011-07	Bolt, Hex Head 3/8-16 x 1-1/4" Self Tap
5	487186	Pulley, 5.20 Dia875 Bore
6	486707	Belt, Transmission
7	486697	Transmission, MV702
8	486757	Pulley, Transmission
9	04043-10	Key, 3/16 x 3/16 x 2"
10	04041-11	Flatwasher, 3/8406 x 1.50 x 7 Ga.
11	04030-04	Lockwasher, 3/8" Spring
12	04102-15	Bolt, Hex Head 3/8-24 x 2" w/ Patch Lock
13	04003-12	Bolt, Carriage 5/16-18 x 3/4"
14	429016	Bracket, Belt Guide
15	04117-07	Nut, Flange Elastic Stop 5/16-18

<sup>\*</sup> Available through individual engine manufacturer.



### **FUEL SYSTEM (EXCLUDES CA MODELS)**





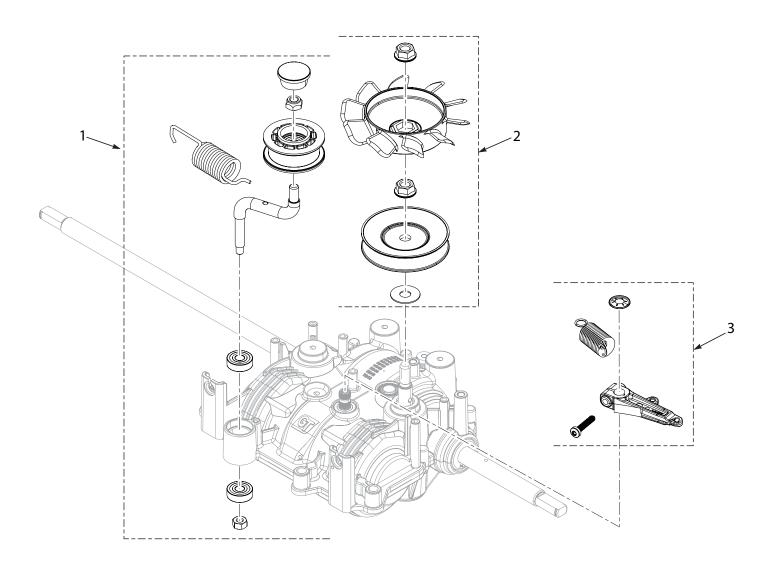
### **FUEL SYSTEM (EXCLUDES CA MODELS)**

Ref. No.	Part No.	Description
1	463366	Fuel Tank Assembly w/Decal (incl. #2, #3, #4, #5)
2	486939	Valve
3	486940	Grommet, Valve
4	482571	Bushing, .56 Viton
5	483748	Elbow w/Screen, 90 Degree
6	486967	Cap, Fuel Tank
7	48059-01	Clamp, Fuel Hose 1/4" ID
8	483617	Fuel Hose, Non-Perm 1/4" (order by inch)
9	486938	Valve, Fuel Shutoff
10	*	Clamp
11	*	Fuel Hose
12	*	Fuel Filter
13	04017-04	Bolt, Hex Head Serrated Flange 1/4-20 x 1/2"
14	484345	Hose, Vapor 3/16 (order by inch)
15	04017-04	Bolt, Hex Head 1/4-20 x 1/2"
16	428715	Bracket, Fuel Tank
17	48030-26	Clamp, 1-1/2" Cable
18	486925	Canister, Carbon 1.28 Gal.

<sup>\*</sup> Available through individual engine manufacturer.



### **MV702 TRANSMISSION**





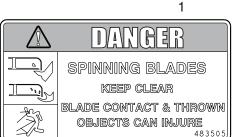
### **MV702 TRANSMISSION**

Ref. No.	Part No.	Description
1 2 3	463371 463370 463372	Transmission Service Kit, Idler Assembly Transmission Service Kit, Pulley & Fan Assembly Transmission Service Kit, Clutch Lever Assembly

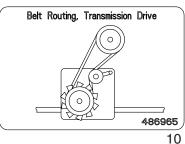


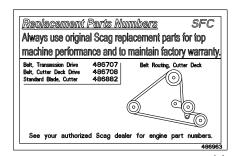
#### REPLACEMENT DECALS AND INFORMATION PLATES











#### WARRING

DO NOT OPERATE WITHOUT DISCHARGE CHUTE, MULCHING KIT, OR ENTIRE GRASS CATCHER INSTALLED 483405

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486954

MAYVILLE WEST BEND BEAVER DAM, WI

CORAFT OF MATTI

COMMERCIAL GRADE

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SPRING TENSION ON IDLER SEE OPERATOR'S MANUAL BEFORE DISASSEMBLY 481099



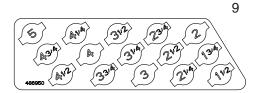
2

ROTATING BLADES AND BELTS

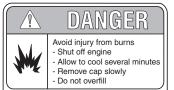
- Keep hands, feet & clothing clear

- Reep lidings, leef a clothing clear
   Reep all guards in place
   Shut off engine & disengage blade cultch before servicing
   Use caution in directing discharge
   Read instruction manual before operating

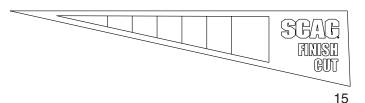
DO NOT OPERATE UNLESS GRASS CATCHER, MULCHING KIT OR DISCHARGE CHUTE IS INSTALLED



12



13



14 WARNING BEFORE OPERATING Š BEFORE OPERATING
Read operator's manual
Make sure guards, shields & safety
devices after in place & morking
floor area of children, bystanders, & debrits
alook down & behind before & while backing
100 not operate this machine unless you
are frained
\*\*Mow across face of slopes
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distribudor Scog DISENGAGE MOWER DECK ENGAGE AN WARNING DO NOT OPERATE DOWN OR UP SLOPES SLOW STOP 486953 16



### REPLACEMENT DECALS AND INFORMATION PLATES

Ref. No.	Part No.	Description
1	483402	Decal, Belt Cover
2	483405	Decal, Warning
3	486943	Decal, Military Grade
4	483505	Decal, Spinning Blades
5	481099	Decal, Spring Loaded Idler
6	486954	Decal, Parking Brake
7	484803	Decal, Danger - Cut Finger
8	485403	Decal, Metalcraft - USA
9	483406	Decal, Knives
10	486965	Decal, Belt Routing
11	486945	Decal, 30 Commercial Grade
12	486950	Decal, Cut Height
13	486942	Decal, Fuel Tank
14	486963	Decal, Replacement Parts
15	486944	Decal, Belt Cover
16	486953	Decal, Instrument Panel

#### LIMITED WARRANTY - SFC Commercial 30

Any part of the Scag commercial mower manufactured by Scag Power Equipment and found, in the reasonable judgment of Scag, to be defective in materials or workmanship, will be repaired or replaced by an Authorized Scag Service Dealer without charge for parts and labor during the periods specified below. This warranty is limited to the original purchaser provided the product was purchased from an Authorized Scag Power Equipment Dealer and is <u>not transferable</u>. Proof of purchase will be required by the dealer to substantiate any warranty claims. All warranty work must be performed by an Authorized Scag Service Dealer.

This warranty is limited to the following specified periods from the date of the original retail purchase for defects in materials or workmanship:

- · Wear items including drive belts, grass bag, blades, and wheels are warranted for ninety (90) days.
- Frame and structural components are warranted for one (1) year (parts and labor) for commercial use or three (3) years / 500 hours (whichever comes first) (parts and labor) for non-commercial use.
- Cutter deck is warranted for a period of one (1) years. (parts and labor) for commercial use or three (3) years / 500 hours (whichever comes first) (parts and labor) for non-commercial use The repair or replacement of the cutter deck will be at the option of Scag Power Equipment. We reserve the right to request components for evaluation. This warranty does not cover any mower that has been subject to misuse, neglect, negligence, modification or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.
- Engines are covered by the engine manufacturer's warranty period. Refer to the engine owner's manual supplied with this product.
- Major drive system components are warranted for one (1) year (parts and labor) for commercial use or three (3) year / 500 hour (whichever comes first) (parts and labor) for non-commercial use by Scag Power Equipment. (commercial and non-commercial warranty excludes fittings, hoses, drive belts). The repair or replacement of the transmission will be at the option of Scag Power Equipment. This warranty does not cover any mower 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.
- Blade clutch has a Limited Warranty for one (1) year (parts and labor) for commercial use or three (3) year / 500 hours (whichever comes first) (parts and labor) for non-commercial use.
- Spindle assemblies have a Limited Warranty for one (1) year (parts and labor) for commercial use or three (3) year / 500 hours (whichever comes first) (parts and labor) for non-commercial use..
- Any Scag product used for rental purposes is covered by a 90 day warranty.

The Scag mower, including any defective part must be returned to an Authorized Scag Service Dealer within the warranty period. The expense of delivering the mower to the dealer for warranty work and the expense of returning it to the owner after repair will be paid for by the owner. Scag's responsibility is limited to making the required repairs and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Scag mower. "Non-Commercial" use is defined as a single property owner, where the single property is the residence of the owner of the mower. If the mower is cutting more than the owners single property, it is deemed commercial use and the "non-commercial" warranty does not apply. Scag Power Equipment reserves the right to deny and / or void the non-commercial warranty if it believes it to be in commercial use.

This warranty does not cover any mower that has been subject to misuse, neglect, modification, 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 mower that is the result of improper maintenance, or to any mower or parts that have not been assembled or installed as specified in the Operator's Manual and Assembly Manual. The warranty does not cover any mower that has been altered or modified, changing performance or durability. 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.

Scag Power Equipment reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured. All other implied warranties are limited in duration to the one (1) year for commercial use, three (3) years / 500 hour for non-commercial use or ninety (90) days for mowers used for rental purpose. 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 one year, three year / 500 hour or 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, expense of delivering the mower to an Authorized Scag Service Dealer and expense of returning it 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.