

SCAG[®]

POWER EQUIPMENT

MODEL SW



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 CONTAINED ON THE INSIDE COVER. BEFORE OPERATING YOUR MACHINE, PLEASE READ ALL THE INFORMATION ENCLOSED.

OPERATOR'S MANUAL



WARNING:

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

- * Keep all shields in place, especially the grass discharge chute.
- * Before performing any maintenance or service, stop the machine and remove the spark plug wire and ignition key.
- * If a mechanism becomes clogged, stop the engine before cleaning.
- * Keep hands, feet and clothing away from power-driven parts.
- * Read this manual completely as well as other manuals that came with your mower.
- * Keep others off the tractor (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:

SW32-15KA	with a serial number of	B1000001 to B1099999
SW32-15KAI	with a serial number of	C0400001 to C0499999
SW36A-15KH	with a serial number of	B1200001 to B1299999
SW36A-16KAI	with a serial number of	C0500001 to C0599999
SW48V-15KA	with a serial number of	B1300001 to B1399999
SW48V-15KH	with a serial number of	B1400001 to B1499999
SW48V-16KAI	with a serial number of	C0600001 to C0699999
SW48V-17KAI	with a serial number of	C0700001 to C0799999
SW52V-17KAI	with a serial number of	C0800001 to C0899999
SW52V-18HN	with a serial number of	B1700001 to B1799999
SW52V-18KH	with a serial number of	B1800001 to B1899999

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

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POWER EQUIPMENT

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MODEL SW

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GENERAL INFORMATION

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.

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.

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

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.



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. Using unapproved attachments, (especially "stand-up" riding attachments) may be hazardous.

SCAG APPROVED ATTACHMENTS AND ACCESSORIES:

- GC-F4 (p/n 9055)
- GC-4D (p/n 9054)
- Mulch Plate (p/n 9258, 9286, 9287)
- Hurricane Mulch System™ (p/n 9263, 9283, 9284)
- Cup Holder (p/n 9240)
- Hour Meter (p/n 48023)
- Turbo Baffle (p/n 424208)
- Blade Buddy (p/n 9212)











DIRECTION REFERENCE











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

SERVICING THE ENGINE

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

ISO Symbols CE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	Choke		Transmission
	Parking Brake	 <small>450715</small>	Spinning Blade
	On/Start		Spring Tension on Idler
	Off/Stop		Oil
	Falling Hazard		Thrown Object

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	Fast		Slow
	Continuously Variable - Linear		Cutting Element - Basic Symbol
	Pinch Point		Cutting Element - Engage
	Hourmeter/Elapsed Operating Hours		Cutting Element - Disengage
	Thrown Object Hazard Keep Bystanders Away		Read Operator's Manual

SAFETY INFORMATION

GENERAL SAFETY INFORMATION

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.

READ THIS OPERATOR'S MANUAL BEFORE ATTEMPTING TO START YOUR MOWER.

If the operator(s) or mechanic(s) cannot read English or Spanish, it is the owner's responsibility to explain this material to them.

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 your 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.

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:

The signal word 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.

DANGER:

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.

WARNING:

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.

CAUTION:

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.

BEFORE OPERATION CONSIDERATIONS

1. Become familiar with the safe operation of the equipment, operator controls, and safety signs.
2. **NEVER** allow children or untrained people to operate or service this machine.
3. Clear the area to be mowed of objects that could be picked up and thrown by the cutter blades.

BEFORE OPERATION CONSIDERATIONS (CONT'D)

4. Always wear appropriate clothing, loose fitting clothing, long hair or jewelry could get tangled in moving parts. Do not operate the machine wearing shorts; always wear adequate protective clothing including long pants. Wearing safety glasses, safety shoes and a helmet is advisable and is required by some local ordinances and insurance regulations.
5. Operator hearing protection is recommended, particularly for continuous operation of the mower. Wear suitable hearing protection. Prolonged exposure to loud noise can cause hearing impairment or hearing loss.
6. 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.
 - C. Never remove the gas cap or add fuel with the engine running. Allow the engine to cool before fueling.
 - D. Never fuel the machine indoors or in an enclosed trailer.
 - E. 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.
 - F. 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.
 - G. Remove the machine from the truck or trailer and fuel on the ground. If this is not possible, then refuel the machine with a portable container, rather than from a gasoline dispenser nozzle.
 - H. Keep the nozzle in contact with the rim of fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
 - I. If fuel is spilled on clothing, change clothing immediately.
 - J. Replace gas cap and tighten securely.
7. Fill the fuel tank with clean, fresh gasoline, with a minimum octane rating of 87. To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
 - A. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - B. Use only an approved gasoline container.
8. Before attempting to start the engine, shift the transmission into neutral, move the blade engagement switch to the OFF position, and move the neutral latches to neutral.
 9. The discharge chute must always be installed and in the down position on the side discharge cutter deck except when the Scag optional grass catcher or mulching plate are properly installed.

WARNING:

This machine is equipped with an interlock system intended to protect the operator and others from injury. This is accomplished by preventing the engine from starting unless the deck drive is disengaged, the transmission is in neutral, and the neutral latches are in the neutral position. The system shuts off the engine if the operator releases the operator presence levers with the deck drive engaged and/or the transmission not in neutral. Never operate equipment with the interlock system disconnected or malfunctioning.

WARNING

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

BEFORE OPERATION CONSIDERATIONS (CONT'D)

DANGER:

ROTATING BLADES

NEVER PUT YOUR HANDS INTO THE DISCHARGE CHUTE FOR ANY REASON! Shut off the engine and remove the key and only then use a stick or similar object to remove material if clogging has occurred.

10. If the mower discharge ever plugs, shut off the engine, remove the ignition key, and wait for all movement to stop before removing the obstruction. Do not use your hand to dislodge the clogged discharge chute. Use a stick or other device to remove clogged material.
11. Check the blade mounting bolts at frequent intervals for proper tightness.

OPERATION CONSIDERATIONS

1. 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.
2. Start the engine when the neutral latches are in the neutral lock position, the cutter blades are disengaged, and the transmission is in neutral.
3. Be sure the interlock switches are functioning correctly.
4. **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 the machine off if a child enters the area.
5. **DO NOT** carry passengers.

6. Using the machine demands attention. To prevent loss of control:
 - A. Mow only in daylight or when there is good artificial light.
 - B. Be alert for holes, rocks, roots and other hidden hazards in the terrain. Keep away from any dropoff. Beware of overhead obstructions (low limbs, etc), underground obstacles (sprinklers, pipes, tree roots, etc.). Cautiously enter a new area. Be alert for hidden hazards.
 - C. Do not drive close to a drop-off, ditch, creek bank, or other hazard.
 - D. 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.
 - E. Always be sure of your footing. Keep a firm hold on the handles and walk---never run.
 - F. Do not operate where conditions are slippery

WARNING:

DO NOT operate on steep slopes. To check a slope, attempt to back up it (with the cutter deck down). If the machine can back up the slope without the wheels slipping, reduce speed and use extreme caution. ALWAYS FOLLOW OSHA APPROVED OPERATION.

7. Disengage power to the 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.
8. Disengage power to the cutter deck before crossing roads, walks or gravel drives. Stop blades if not mowing.
9. Shut the engine off and wait until the blades come to a complete stop before removing the grass catcher container.
10. Never raise the cutter deck while the blades are rotating.

OPERATION CONSIDERATIONS (CONT'D)

DANGER:

ROTATING BLADES

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

11. Keep hands and feet away from cutter blades and moving parts. Contact can injure.
12. **DO NOT** operate without the side discharge chute installed and in the down position.
13. **DO NOT** direct the discharge of material toward bystanders or allow anyone near the machine while in operation.
14. If the cutting blades should strike a solid object or the equipment should start to vibrate abnormally, stop the engine, disconnect the spark plug wire, and check immediately for the cause. Vibration is generally a warning of trouble. Check the machine for damaged or defective parts. Repair any damage before starting the engine or operating the cutter deck. Be sure the blades are in good condition and the blade bolts are tight.
15. Take all possible precautions when leaving the machine unattended, such as disengaging the mower, stopping the engine, and removing the key.

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.

WARNING:

DO NOT run the engine inside a building or a confined area without proper ventilation. Exhaust fumes are hazardous and could cause death.

16. **DO NOT** operate the machine under the influence of alcohol or drugs.
17. Use care when loading or unloading the machine onto a truck or trailer.
18. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
19. Do not change the engine governor settings or overspeed the engine. See the engine operator's manual for information on engine settings.

MAINTENANCE AND STORAGE

1. Allow only trained personnel to service the machine.
2. Park the machine on level ground.
3. 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.
4. Disengage drives, lower implement, stop engine and remove key or disconnect spark plug wire(s) to prevent accidental starting of the engine when servicing or adjusting the machine. Wait for all movement to stop before adjusting, cleaning or repairing.
5. If the mower must be tipped to perform maintenance or adjustment, remove the battery, drain the gasoline from the fuel tank and the oil from the crankcase.
6. Keep all nuts, bolts and screws tight, to ensure the machine is in safe working condition. Check the blade mounting bolts frequently to be sure they are tight. Replace all worn or damaged decals.
7. Clean grass and debris from cutting units, drives, mufflers, and engine to help prevent fires. Clean up oil or fuel spillage.
8. The engine must be shut off before checking the oil or adding oil to the crankcase.

MAINTENANCE AND STORAGE (CONT'D)

9. Let the engine cool before storing.
10. **DO NOT** store the machine near an open flame.
11. Shut off fuel while storing or transporting.
12. Always store gasoline in a safety-approved, red container.
13. Use jack stands to support components when required.
14. Carefully release pressure from components with stored energy.
15. Use care when checking blades. Wrap the blade(s) or wear gloves and use caution when servicing blades. Only replace blades. **NEVER** straighten or weld blades.

INITIAL RUN-IN PROCEDURES (FIRST DAY OF USE OR APPROXIMATELY 10 HOURS)

1. Check the belts for proper tension at 2, 4 and 8 hours. Adjust as needed.
2. Check the steering control rods for neutral adjustment (See Adjustments, page 10).
3. Check the tires for proper pressure.

Caster Wheels	Flat Free
Drive Wheels	12 psi.
4. Check for loose hardware. Tighten as needed.
5. Check the safety switches for proper adjustment:
 - * The engine will not start if the PTO switch is on.
 - * The engine will not start if the machine is not in neutral.
 - * The engine should start if the machine is in neutral and the PTO engagement switch is off.

6. Apply lubricant to all the grease fittings. Lubricant was applied at the factory. This is just a precautionary check to make sure that all the fittings have been lubricated.

MOWER OPERATION

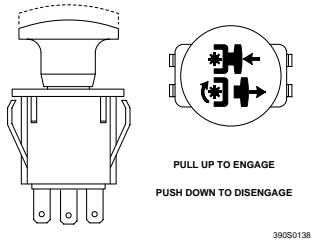
1. Read and understand the safety instructions before attempting to operate this machine.
2. Before starting the engine:
 - * Check the oil level in the engine.
 - * Fill the fuel tank with clean, fresh, lead-free gasoline.
 - * Open the fuel valve on the bottom of the fuel tank.

-NOTE-

Use gasoline with an octane rating no less than 87.

- * The transmission must be in NEUTRAL.
 - * The blade clutch switch must be in the OFF position.
 - * The operator's presence levers must be released.
 - * The neutral latches must be in the neutral lock position
 - * The key switch must be on.
3. Start the engine:
 - * Choke as required. If the engine is cold, pull the choke knob out. When the engine starts, slowly push the choke in. If the engine stalls, repeat the above operation. When the engine is warm, choking may not be necessary.
 4. Engage the cutter blades by depressing the operator presence levers and pulling the blade clutch switch into the ON position. Push the switch to the OFF position to disengage the cutter blades.

MOWER OPERATION (CONT'D)



-NOTE-

When PTO is engaged or (possibly) disengaged, a squealing sound from the underside of the machine is normal. It is caused by the electric clutch plates meshing as the mower comes up to speed. For best equipment life, engage the clutch with the engine at 3/4 throttle, not under full load.

WARNING:

To avoid serious bodily injury and damage to the transmission, the machine must be at a full stop before shifting between gears or shifting between forward and reverse.

- Shift the transmission into gear for the desired mowing speed.

-NOTE-

Top speed is suggested only for transport!

- While squeezing the steering brake levers with both hands, release both neutral latches.
- When the steering brake levers are released, the machine will travel straight. To make a right turn, squeeze the RH lever. To turn left, squeeze the LH lever.
- TO STOP, squeeze both levers, lock the neutral latches, and shift the transmission into neutral.

CUTTER DECK BELT ADJUSTMENTS

CAUTION:

Stop engine and remove the key from the ignition before making any adjustments. Wait for all moving parts to come to a complete stop before beginning work.

- Remove the belt cover.
- Adjust the cutter deck drive belt using a belt tension gauge. Adjust the belt so that the belt moves 1/2" with 10 pounds of pressure. Adjust the tension by tightening or loosening the J-bolt nut. (See figure 1).

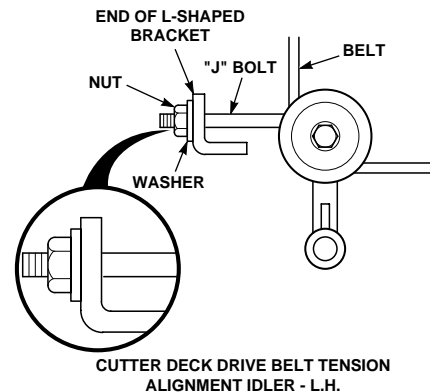


Figure 1. Deck Drive Belt Adjustment

-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.

- Adjust the RH blade drive belt using a belt tension gauge. Adjust the belt so that the belt moves 1/2" with 10 pounds of pressure. Adjust the tension by tightening or loosening the J-bolt nut. (See Figure 2 & 3).

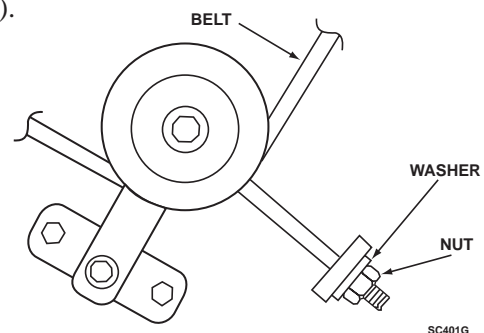


Figure 2. Cutter Deck Belt Adjustment R.H.

CUTTER DECK BELT ADJUSTMENTS (CONT'D)

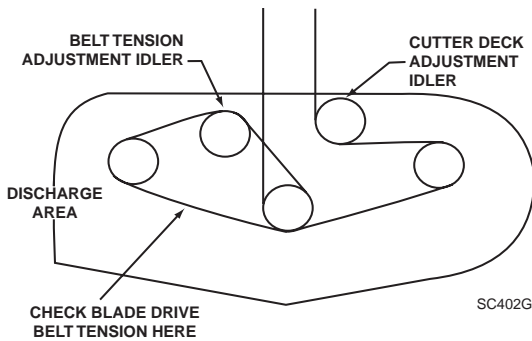


Figure 3. Cutter Deck Belt

4. Replace the belt cover.

TRANSMISSION DRIVE BELT

Adjust the transmission drive belt so that there is about a 3/16" deflection with 10 lbs. of pressure. Adjust by loosening idler pulley mounting bolt and sliding the idler left or right to change belt tension.

DRIVE CONTROL ADJUSTMENTS

1. Adjust the steering control rods so that there is approximately 3/4" clearance from the bottom of the rod to the bottom of the neutral latch slot when in the drive position. (See Figure 4).

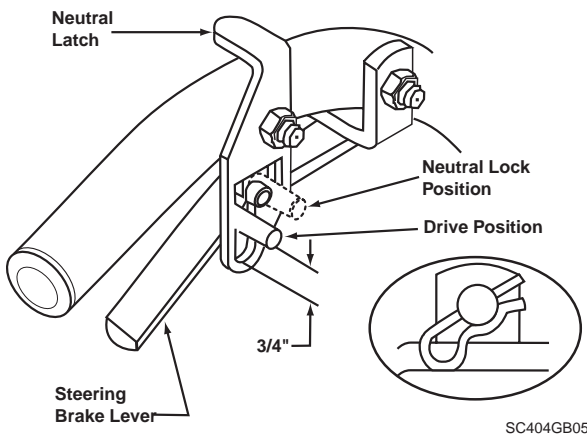


Figure 4. Steering Control Rod Adjustment

-NOTE-

*Operator presence lever removed for clarity.
Never operate equipment with the interlock system disconnected.*

2. Adjust the steering brake rods so that the brakes do not apply until the steering levers are pulled tight to the handles. When the steering levers are locked in the neutral position the machine should move freely.

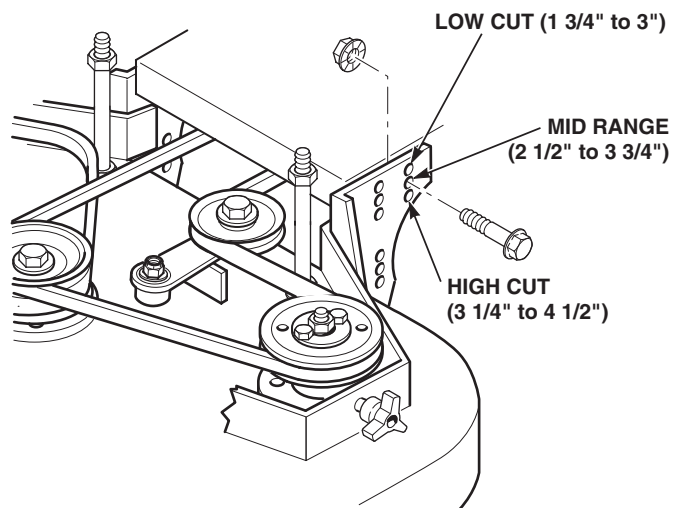
CUTTER DECK ADJUSTMENTS

Due to the many cutting conditions that exist, it is difficult to suggest a cutter deck setting that will work for every lawn. There are two adjustments that can be made on these decks, pitch and height.

PITCH is the angle of the blades (comparing front to rear).

HEIGHT is the nominal distance the blade is off of the ground. This measurement is made with the blades pointed side to side and distance is measured between cutting tip and ground. (Also see Blade Height Adjustment, next page).

Changes to the cutting height can be achieved by repositioning the cutter deck. (This adjustment will also effect the pitch of the deck). There are three available positions (See Figure 5).



CUTTER DECK HEIGHT ADJUSTMENT
Figure 5. Cutting Height Adjustment

CUTTER DECK ADJUSTMENTS (CONT'D)

Caster spacers also can be repositioned to change cutting heights and to change the pitch of the deck. (See Figure 6).

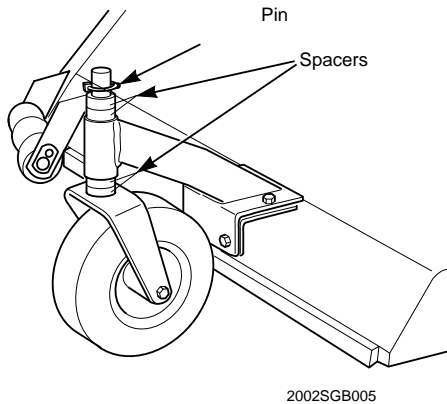


Figure 6. Caster Wheel Spacers

BLADE HEIGHT ADJUSTMENT

Adjusting the blade height can be done by moving any number of the five smaller 1/4" spacers on the blade mounting bolts to the top of the spindle shaft or below the spindle shaft.

-NOTE-

All blades should be positioned equally.

For best cut and discharge, a minimum of three spacers should be installed between the blade and the spindle (See Figure 7).

! WARNING:

Blades have a sharp cutting edge. Wear proper eye protection and protective gloves or wrap blades with protective material when removing, sharpening and installing blades.

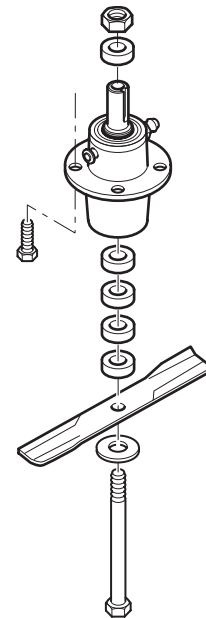


Figure 7. Blade Spacers

CUTTER BLADES

Do not sharpen beyond 1/3 of the width of the blade. (See Figure 8).

-NOTE-

Dress the blade with a file. Using a wheel grinder may burn the blade. Check the balance of the blade. If blades are out of balance, vibration and premature wear of spindle assembly can occur. See your authorized Scag dealer for blade balancing or special tools, if you choose to balance your own blades.

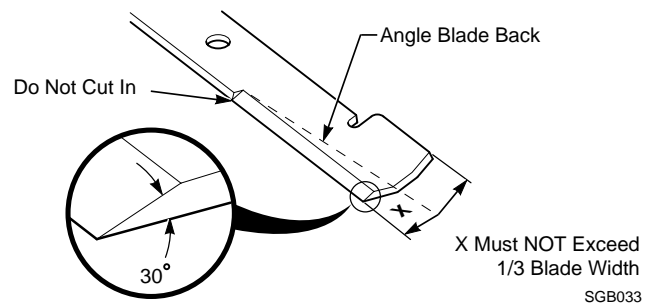


Figure 8. Blade Sharpening

CUSTOM-CUT BAFFLE ADJUSTMENT

The Custom-Cut Baffle is designed to deliver optimum airflow and superior cutting performance in any type of grass. The Custom-Cut Baffle can be raised or lowered to precisely tailor the deck's performance for the type of grass being cut. The baffle can be set in three (3) different positions for optimum performance.

- A. 3" Position - baffle is installed using the top set of holes on the front baffle welded inside the cutter deck. (See Figure 10). The Velocity-Plus and Advantage cutter deck will deliver the best quality-of-cut in very tall, wiry, tough to cut grass.
- B. 3-1/2" Position (factory setting for Advantage cutter decks) - baffle is installed using the middle set of holes on the front baffle welded inside the cutter deck. (See Figure 11). For general purpose cutting, place the Custom Cut Baffle in the 3-1/2" position. This gives the best mix of cutting performance in all types of grass.
- C. 4" Position (factory setting for Velocity-Plus cutter decks) - baffle is installed using the bottom set of holes on the front baffle welded inside the cutter deck. (See Figure 12). Placing the baffle in the 4" setting will enhance fall cutting (leaf pickup) and reduce cutter deck "blowout".

TO ADJUST THE CUSTOM-CUT BAFFLE HEIGHT:

1. Remove the hardware securing the Custom-Cut Baffle to the cutter deck (See Figure 9).

-NOTE-

Hardware location used in the illustrations are for reference only. Location of hardware may vary depending on the cutter deck size.

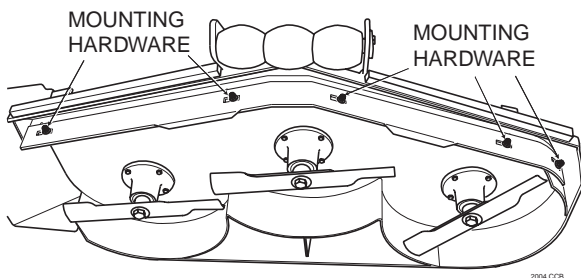


Figure 9. Custom-Cut Baffle

2. Move the Custom-Cut Baffle to desired position. (See Figures 10 through 12 for position).
3. Reinstall the mounting hardware as shown. (See Figures 10 through 12). Torque hardware to 39ft.lbs.

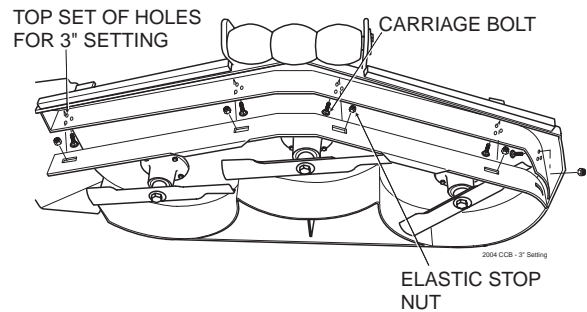


Figure 10. 3" Custom-Cut Baffle Position

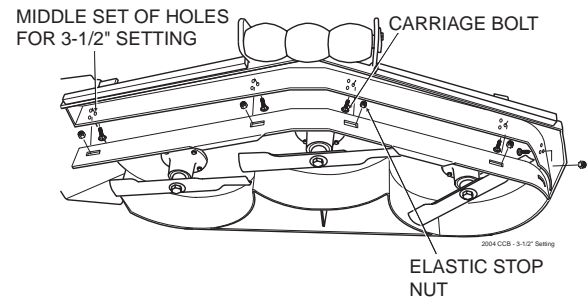


Figure 11. 3-1/2" Custom-Cut Baffle Position

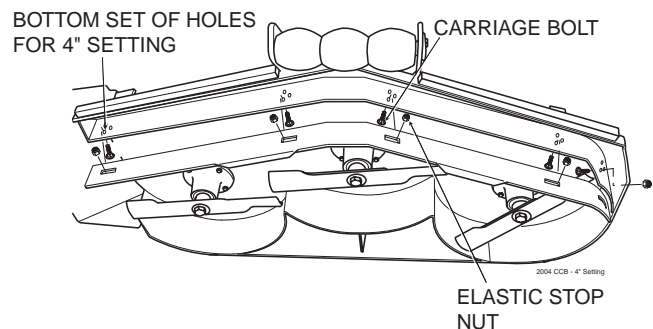


Figure 12. 4" Custom-Cut Baffle Position

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.

3. Repair damaged metal surfaces using Scag touch-up paint (P/N 48521) available from your authorized Scag dealer. Wax the mower with an automotive paint wax for maximum paint protection.

CHANGING ENGINE CRANKCASE OIL

After the first 5 hours of operation, change the engine crankcase oil and replace the oil filter. Thereafter, change the engine crankcase oil after every 100 hours of operation or bi-weekly, whichever occurs first. Refer to the Engine Operator's Manual furnished with this mower for instructions.

CHANGING ENGINE OIL FILTER

After the first 5 hours of operation, replace the engine oil filter. Thereafter, replace the oil filter every 200 hours of operation or every month, whichever occurs first. Refer to Engine Operator's Manual for instructions.

ENGINE AIR CLEANER

For any air cleaner, the operating environment dictates how often the air cleaner should be serviced. Refer to the Engine Operator's Manual furnished with this mower for instructions.

-NOTE-

In extremely dusty conditions it may be necessary to service the air cleaner daily to prevent engine damage.

CLEANING THE MACHINE



CAUTION:

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

1. After each use, wash the mower and cutter deck. Use cold water and automotive cleaners. Do not use pressure cleaners.
2. Do not spray electrical components.

LUBRICATION & MAINTENANCE

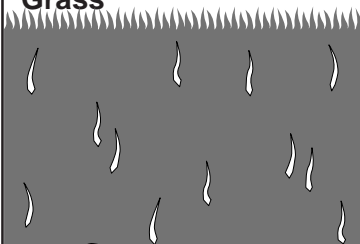
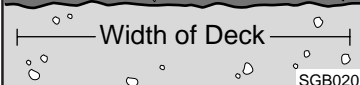
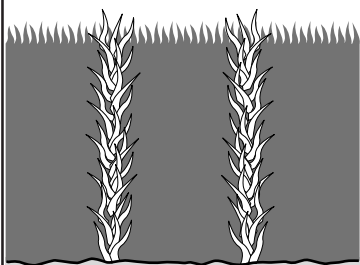
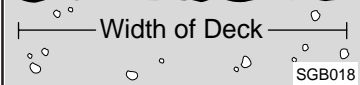
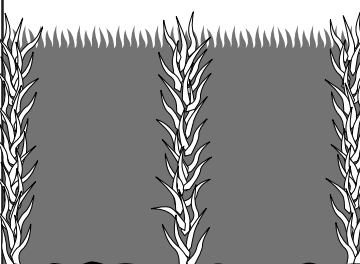
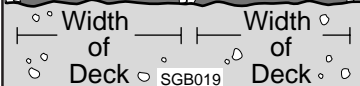
+ Grease spindle until grease comes out the relief valve.

Compatible Greases:

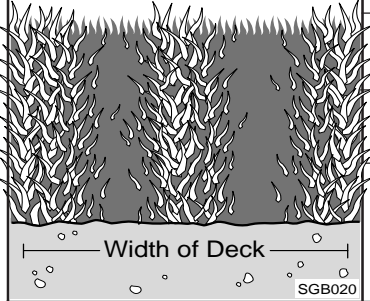
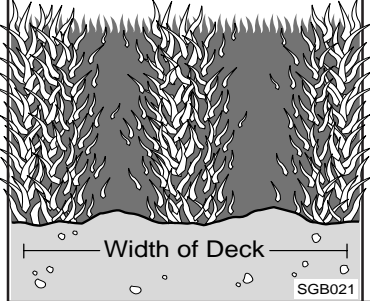
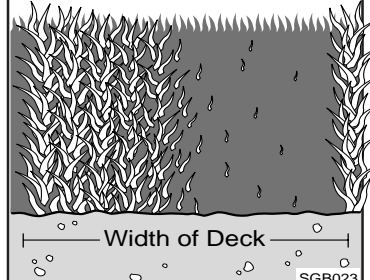
Lidok EP #2 (found at industrial shops)
 Ronex MP (Exxon service stations)
 Shell Alvania (Shell service stations)
 Mobilux #2 (Mobil service stations)
 Super Lub MEP #2 (Conoco service stations)

BREAK-IN			
8 HOURS (DAILY)			
40 HOURS (WEEKLY)			
100 HOURS (BIWEEKLY)			
500 HRS OR ANNUALLY			
		PROCEDURE	COMMENTS
X		Check all hardware for proper tightness	
X		Change engine oil and filter at 5 hours	
X		Check engine oil	Do not over fill
X		Remove debris from under belt cover	More often if needed
X		Sharpen cutter blades	More often if needed
X		Grease spindle bearings	+ US Lithium MP White Grease 2125
X		Clean air filter	More often if needed
X		Check belt tension	
X		Check tire pressure	Add or adjust as required
X		Change engine oil	See engine mfg. information
X		Replace air filter	More often if needed
X		Grease caster wheel bearings	Chassis grease
X		Grease caster wheel pivot shafts	Chassis grease
X		Grease drive wheel bearings	Chassis grease
X		Grease transmission couplers	Chassis grease
X		Grease idler bracket LH & RH	Chassis grease
X		Check all hardware for proper tightness	More often if needed
X		Adjust air gap on electric clutch	Contact your Scag dealer for information about this maintenance procedure.

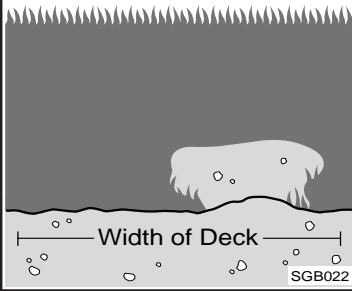
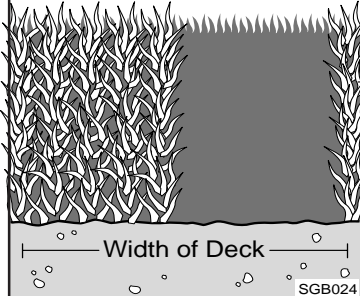
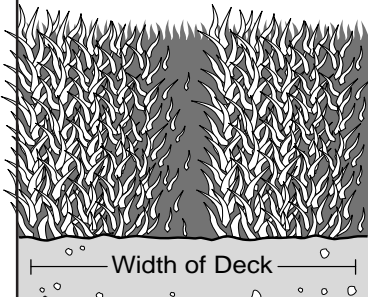
TROUBLESHOOTING CUTTING CONDITIONS

CONDITION	CAUSE	CURE
Stringers - Occasional Blades of Uncut Grass 	Low engine RPM	Run engine at full 3600 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
		Belts slipping
Streaking - Strips of Uncut Grass in Cutting Path 	Dull, worn blades	Sharpen blades
	Incorrect blade sharpening	Sharpen blades
	Low engine RPM	Run engine at full 3600 RPM
	Belt slipping	Adjust belt tension
	Deck plugged, grass accumulation	Clean underside of deck
	Ground speed too fast	Slow speed to adjust for conditions
	Wet grass	Cut grass after it has dried out
		Bent blades
Streaking - Strips of Uncut Grass Between Cutting Paths 	Not enough overlapping between rows	Increase the overlap of each pass
		

TROUBLESHOOTING CUTTING CONDITIONS

CONDITION	CAUSE	CURE
<p data-bbox="126 380 397 590">Uneven Cut on Flat Ground - Wavy High-Low Appearance, Scalloped Cut, or Rough Contour</p>  <p data-bbox="207 888 370 909">Width of Deck</p> <p data-bbox="397 930 456 951">SGB020</p>	Lift worn off of blade	Replace blade
	Blade upside down	Mount with cutting edge toward ground
	Deck plugged, grass accumulation	Clean underside of deck
	Too much blade angle (deck pitch)	Adjust pitch and level
	Deck mounted improperly	See your authorized SCAG dealer
	Bent spindle area	See your authorized SCAG dealer
	Dull blade	Sharpen blade
<p data-bbox="126 972 451 1150">Uneven Cut on Uneven Ground - Wavy Appearance, High-Low Scalloped Cut, or Rough Contour</p>  <p data-bbox="207 1470 370 1491">Width of Deck</p> <p data-bbox="397 1512 456 1533">SGB021</p>	Uneven ground	May need to reduce ground speed, raise cutting height, and/or change direction of cut
<p data-bbox="126 1554 435 1627">Sloping Ridge Across Width of Cutting Path</p>  <p data-bbox="207 1911 370 1932">Width of Deck</p> <p data-bbox="397 1953 456 1974">SGB023</p>	Tire pressures not equal	Check and adjust tire pressure
	Wheels uneven	Check and adjust tire pressure
	Deck mounted incorrectly	See your authorized SCAG dealer

TROUBLESHOOTING CUTTING CONDITIONS

CONDITION	CAUSE	CURE
Scalping - Blades Hitting Dirt or Cutting Very Close to the Ground  <p style="text-align: right; font-size: small;">SGB022</p>	Low tire pressures	Check and adjust pressures
	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
	Ground speed too fast	Slow speed to adjust for conditions
	Wet grass	Cut grass after it has dried out
Step Cut Ridge in Center of Cutting Path  <p style="text-align: right; font-size: small;">SGB024</p>	Blades not mounted evenly	Adjust pitch and level
	Bent blade	Replace blade
	Internal spindle failure	See your authorized SCAG dealer
	Mounting of spindle incorrect	See your authorized SCAG dealer
Slope Cut - Sloping Ridges Across Width of Cutting Path  <p style="text-align: right; font-size: small;">SGB025</p>	Bent spindle mounting area	See your authorized SCAG dealer
	Internal spindle failure	See your authorized SCAG dealer
	Bent deck housing	See your authorized SCAG dealer

TECHNICAL SPECIFICATIONS

MODELS

SW32-15KA, SW32-15KAI, SW36A-15KH, SW36A-16KAI, SW48V-15KH,
SW48V-15KA, SW48V-16KAI, SW48V-17KAI, SW52V-17KAI,
SW52V-18KH, SW52V-18HN

ENGINE

General Type:

Heavy duty industrial/commercial

Brand / Model:

Kawasaki FH430V, FH451V, FH480V, FH500V & FH541V
Kohler CV15T & CV493T
Honda GXV610QAF

Horsepower:

Kawasaki FH430V=15HP, FH451V=15HP, FH480V=16HP,
FH500V=17HP & FH541V=17HP
Kohler CV15T=15 HP, CV493T=18HP
Honda GXV610QAF=18HP

Type:

Kawasaki 15 HP, 16HP & 17 HP 4 cycle, air cooled, V twin cylinder,
vertical shaft engine.
Kohler 15 HP & 18 HP = 4 cycle gasoline engine, air cooled, single
cylinder, vertical shaft engine.
Honda 18HP = 4 cycle gasoline engine, air cooled, V twin cylinder,
vertical shaft engine.

Displacement:

Kawasaki FH430V=431cc: FH451V=494cc: FH480V=472cc:
FH500V=494cc: FH541V=585cc
Kohler CV15T=426cc: CV493T=490cc
Honda GXV610QAF=615cc

Governor:

Mechanical type governor with variable speed control. Settings:
Kawasaki 15 HP = 3600 rpm (+/- 100 rpm), idle set at 1550 rpm
(+/- 150 rpm), 16HP = 3600 rpm (+/- 100 rpm), idle set at 1550 rpm
(+/- 150 rpm), 17HP = 3600 rpm (+/- 100 rpm), idle set at 1550 rpm
(+/- 150 rpm)
Kohler 15 HP = 3600 rpm (+/- 50 rpm), idle set at 1200 rpm (+/- 75 rpm),
18HP = 3600 rpm (+/- 50 rpm), idle set at 1500 rpm (+/- 75 rpm)
Honda 18 HP = 3600 rpm (+/- 150 rpm), idle set at 1700 rpm
(+/- 150 rpm)

Air Cleaner:

Large capacity duel element with cyclonic-type air filter.

Exhaust:

Single & dual exhaust canister muffler.

Starter/Electrical:

Electronic ignition with recoil starter.

Fuel Pump Group:

Varied - See manufacturer's specification.

Oil Pump Group:

Varied - See manufacturer's specification.

Valve Group:

Varied - See manufacturer's specification.

ENGINE DECK

Thickness:

7 gauge steel.

Fuel Tank:

6 gallon (19.0 liters) seamless polyethylene with integral cup holder.

Drive Wheels/Tires:

13.0 x 6.50-6 two-ply pneumatic tubeless.

Handle Bars:

1-1/4" diameter.

TECHNICAL SPECIFICATIONS (CON'T)
CUTTER DECKS

Type:	SWM 36 Advantage, SWM 48 Velocity Plus, SWM 52 Velocity Plus.
Construction:	Out-front design with anti-scalp rollers SWM36A, 48V: 7-gauge steel with 7-gauge (3/16") steel skirt SWM52V: 10-gauge steel with 7-gauge (3/16") steel skirt
Cutting Width:	35.5" (90.2 cm), 48.0 (122.0 cm), 52.0" (132.0 cm),
Cutting Height Adjustment:	Adjustable from 1-3/4" to 4-1/4" in 1/4" increments
Cutter Blades:	Marbain™, .197 thickness SWM 36: Two (2) 18"; SWM 48: Three (3) 16.5" SWM 52: Three (3) 18"
Blade Engagement:	Electric blade brake clutch with instrument panel switch
Discharge Opening:	Extra wide discharge opening with spring loaded discharge chute
Caster Wheels:	9 x 3.5 Flat free smooth tread flotation, roller bearings, with quick pin removal
Spindles:	Cast housing, taper roller bearing, low maintenance with top access grease fitting and grease overfill relief poppet
Spindle Pulleys:	Split steel with easily removed taper hubs
Idler Pulley:	5" diameter pulley, welded and riveted construction, 1-3/8" O.D. Bearings
Idler Arm:	Heavy duty idler arm of 1/4" channel steel
Cutter Deck Belts:	B-section with Kevlar cord

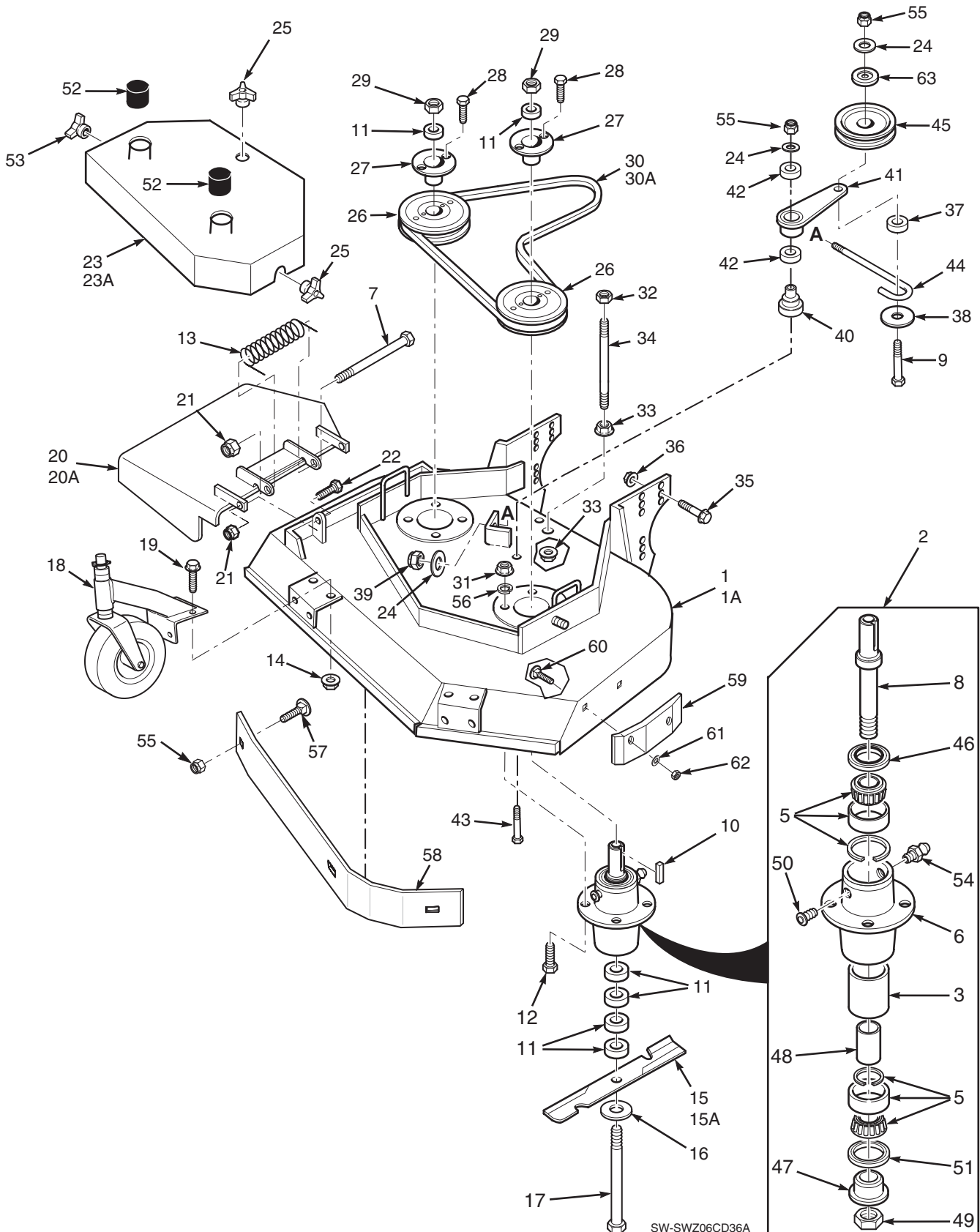
ADDITIONAL SPECIFICATIONS
OPTIONAL ITEMS/ATTACHMENTS

Fabric Grass Catcher:	GC-F4 Grass Catcher with 4 cubic ft. capacity
Metal Grass Catcher:	GC-4D Grass Catcher with 4 cubic ft. capacity and rope pull dump or pick-up and dump
Turbo-Baffle	High velocity discharge baffle. Improves quality-of-cut, and discharge disbursement.
Hurricane Mulch Kit:	The unique Hurricane Mulch System™ employs "Eye of the Hurricane" mulching plates combined with bolt-in v-baffles, flow directors, Eliminator blades, and a side discharge close-off plate.
Cup Holder:	Enable operator to safely and conveniently carry a beverage with them.

APPROXIMATE DIMENSIONS SWM36A SWM48V SWM52V

Length:	74.0"	76"	78"
Length with Grass Catcher:	74.0"	76"	78"
Tracking Width:	37.0"	42.0"	42.0"
Width:	54.5"	59.0"	62"
Width (with discharge chute up):	37.5"	49.0"	52"
Width with grass catcher:	55.0"	65.0"	78"
Height:	43"	43"	43"
Height with grass catcher:	43"	43"	43"
Weight	515 lbs.	555 lbs	560 lbs
Weight with grass catcher:	555 lbs.	595 lbs	600 lbs.
Turning Radius:	Zero	Zero	Zero

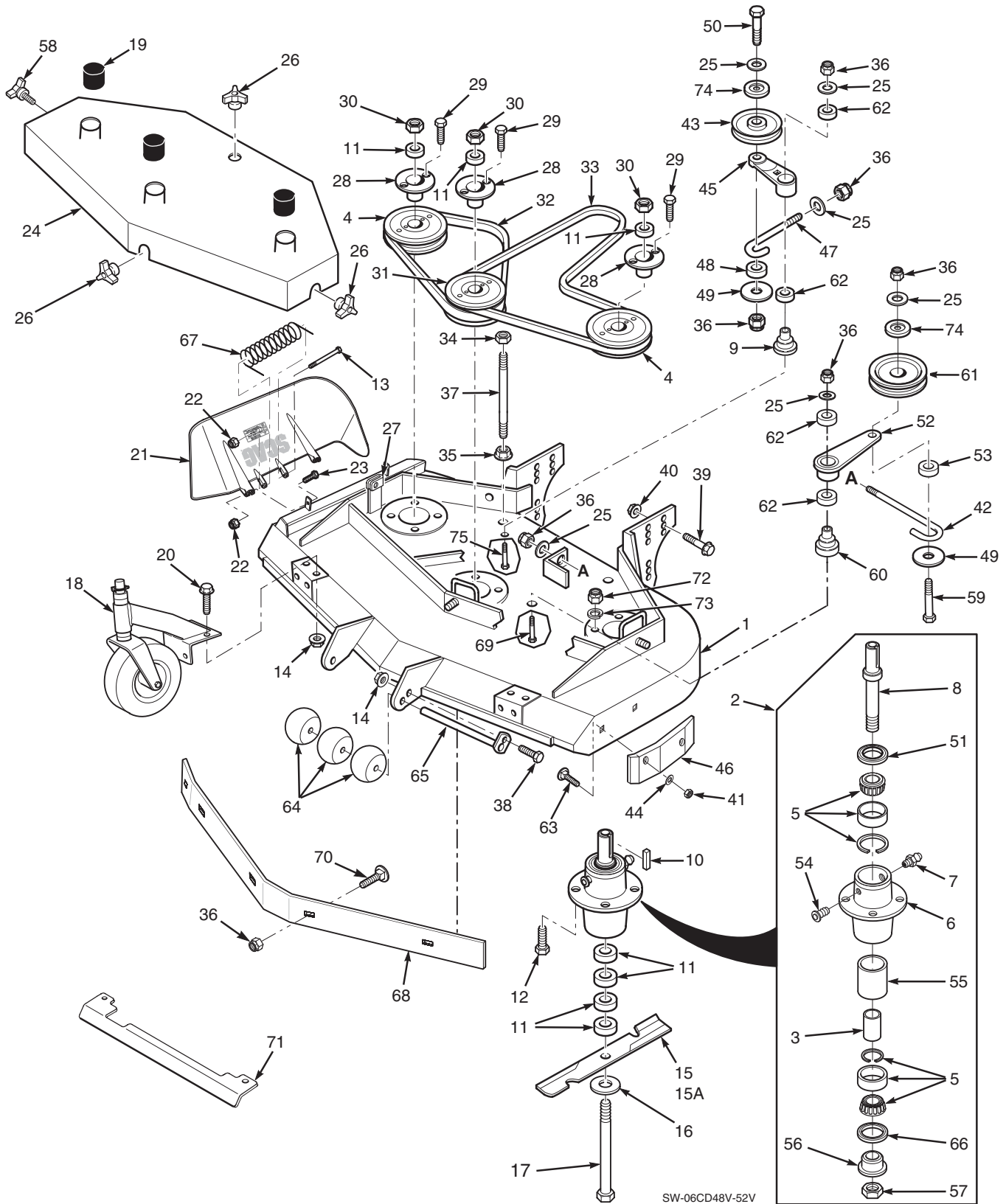
32" & 36A" CUTTER DECKS



32" & 36A" CUTTER DECKS

Ref. Part				Ref. Part			
No.	Number	Description	32 36A	No.	Number	Description	32 36A
1	461847	Cutter Deck (Includes Decals)	x	42	48224	Bearing	x x
1A	461848	Cutter Deck (Includes Decals)	x	43	04001-62	Cpsscrw, 3/8-16 x 3-1/4" Hex Head	x x
2	461663	Cutter Spindle Assy.	x x	44	44078	J-Hook	x x
3	43312	Spacer, Outside	x x	45	483215	Idler Pulley, Belt Clutch	x x
5	481022	Tapered Bearing (Two)	x x	46	481024	Seal, Cutter Spindle	x x
6	43644	Spindle Housing	x x	47	43297	Spindle Bushing	x x
7	04001-154	Bolt, 5/16-18 x 4-3/4" Hex Head	x x	48	43296	Spacer, Inside	x x
8	43589	Spindle Shaft	x x	49	481035	Nut, 1.06-18	x x
9	04001-51	Bolt, 3/8-16 x 3-3/4" Hex Head	x x	50	48677	Relief Fitting, Cutter Spindle	x x
10	04063-08	Key, 1/4 x 1/4 x 2"	x x	51	481025	Seal, Cutter Spindle	x x
11	43592	Spacer, Cutter Blade - Small	x x	52	48098	Spindle Shield	x x
12	04001-175	Bolt, 5/16-18 x 1-1/2" Hex Head Grade 8	x x	53	04029-04	Wing Nut, 3/8-16 (Small) RH side	x x
13	482245	Spring, Chute Return	x x	54	48114-04	Grease Fitting	x x
14	04019-03	Nut 5/16-18 Serrated Flange	x x	55	04021-09	Nut, Hex Elastic Stop 3/8-16	x x
15	481706	Cutter Blade, 16-1/2" Marbain	x	56	04030-03	Lock Washer, 5/16"	x x
15	481707	Cutter Blade, 18" Marbain	x	57	04003-23	Bolt, Carriage 3/8-16 x 1"	x x
15A	481710	Cutter Blade 16-1/2 Hi Lift Marbain	x	58	423783	Baffle Weldment	x
15A	481711	Cutter Blade, 18 Hi Lift Marbain	x	59	483174	Pad, Deck Wear	x x
16	04043-06	Flatwasher, 5/8 W	x x	60	04003-12	Bolt, Carriage 5/16-18 x 3/4"	x x
17	04001-41	Hex Hd. Bolt, 5/8-11 x 9-1/2"	x x	61	04040-04	Flatwasher, 5/16"	x x
18	461023	Caster Assembly	x x	62	04021-04	Hex Nut, 5/16-18 Center Locknut	x x
19	04017-16	Cpsscrw, 5/16-18 x 3/4" Ser.Flg. Hex Head	x x	63	424367	Dust Shield	x x
20	461291	Discharge Chute	x				
20A	461295	Discharge Chute	x				
21	04021-10	Hex Nut, 5/16-18 Elastic Stop	x x				
22	04001-09	Hex Hd Bolt, 5/16-18 x 1"	x x				
23	461709	Belt Cover Assy (Includes Decal)	x				
23A	461413	Belt Cover Assy (Includes Decal)	x				
24	04043-04	Flat Washer, 3/8" Special	x x				
25	04029-03	Wing Nut, 3/8-16	x x				
26	482744	Pulley	x x				
27	48926	Tapered Hub	x x				
28	04001-172	Hex Hd. Bolt, 1/4-20 x 1"	x x				
29	04020-09	Hex Nut, 5/8-11	x x				
30	48278	Belt, Blade Drive	x				
30A	48204	Belt, Blade Drive	x				
31	04021-22	Elastic Stop Nut, 5/16-18 Grade 8	x x				
32	04021-05	Hex Nut, 3/8-16 Center Locknut	x x				
33	04019-04	Nut, 3/8-16 Serrated Flange	x x				
34	04004-02	Support, Belt Cover	x x				
35	04017-36	Cpsscrw, 1/2-13 x 1" Ser.Flg. HH	x x				
36	04112-05	Nut, 1/2-13 Spiralock	x x				
37	43277	Spacer, J-Hook	x x				
38	04041-12	Flatwasher, 3/8 x 1-1/2 x 16 GA	x x				
39	04021-09	Elastic Stop Nut, 3/8-16	x x				
40	43681	Idler Pivot	x x				
41	461841	Idler Arm Assy. (Inc. 42)	x x				

48V, 52V" CUTTER DECKS



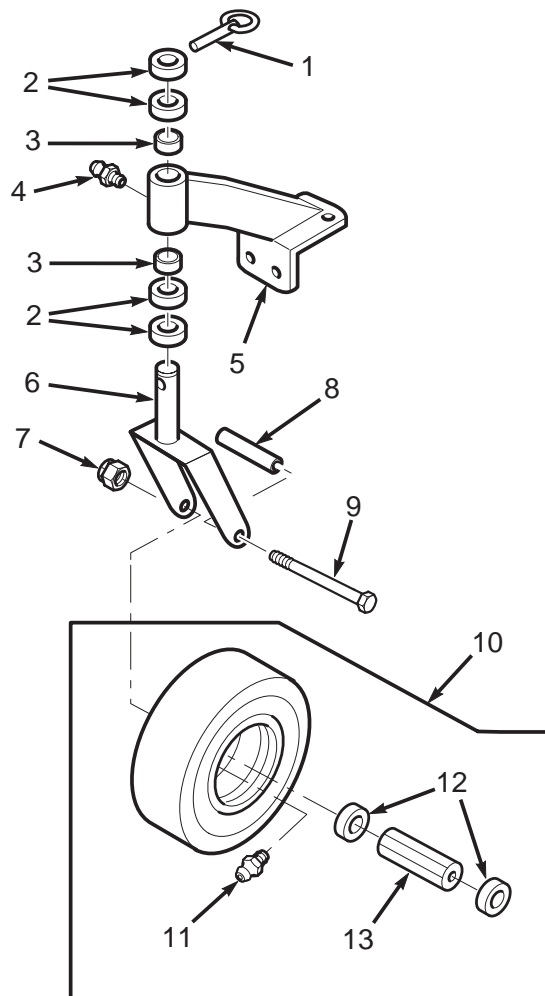
SW-06CD48V-52V

48V, 52V" CUTTER DECKS

Ref. Part No.	Part No.	Description	48V	52V	Ref. Part No.	Part No.	Description	48V	52V
1	461852	Cutter Deck (Includes decals)	x		36	04021-09	Nut, 3/8-16 Elastic Stop	x	x
	461855	Cutter Deck (Includes decals)		x	37	04004-02	Support, Belt Cover	x	x
2	461663	Spindle Assembly	x	x	38	04001-09	Bolt, 5/16-18 x 1" Hex Head	x	x
3	43296	Spacer, Inside	x	x	39	04017-36	Cpscrw, 1/2-13 x 1" Ser.Fig. HH	x	x
4	482744	Pulley	x	x	40	04112-05	Nut, 1/2-13 Spiralock	x	x
5	481022	Tapered Bearing (Two)	x	x	41	04021-04	Hex Nut, 5/16-18 Center Locknut	x	x
6	43644	Spindle Housing	x	x	42	44078	J-Hook, 48V	x	
7	48114-04	Grease Fitting Str. 5/16"	x	x		43028	J-Hook, 52V		x
8	43589	Spindle Shaft, Tapered Brng	x	x	43	48181	Idler Pulley, "V" Groove	x	x
9	43682	Idler Pivot	x	x	44	04040-04	Flatwasher, 5/16"	x	x
10	04063-08	Key, 1/4 x 1/4 x 2"	x	x	45	461091	Idler Arm Assy. (Includes 62)	x	x
11	43592	Spacer, Cutter Blade - Small	x	x	46	483176	Pad, Deck Wear	x	x
12	04001-175	Bolt, 5/16-18 x 1-1/2" Hex Head GR-8	x	x	47	43028	J-Rod, Idler Pulley	x	x
13	04001-154	Bolt, 5/16-18 x 4-3/4" Hex Head	x	x	48	43077	Spacer, J-Rod	x	x
14	04019-03	Serrated Flange Nut, 5/16-18	x	x	49	04041-12	Washer, 3/8 x 1-1/2 x 16 ga.	x	x
15	481706	Cutter Blade 16-1/2" Marbain	x		50	04001-31	Bolt, 3/8-16 x 2-1/2" Hex Head	x	x
15	481707	Cutter Blade 18" Marbain		x	51	481024	Seal, Cutter Spindle	x	x
15A	481710	Cutter Blade 16-1/2 High Lift Marbain	x		52	461841	Idler Arm Assy (Includes 62)	x	x
15A	481711	Cutter Blade 18 High Lift Marbain		x	53	43277	Spacer, J-Rod	x	x
16	04043-06	Flatwasher, 5/8" (.688 x 1.75 x .134)	x	x	54	48677	Reiief Fitting, Cutter Spindle	x	x
17	04001-41	Hex Head Bolt, 5/8-11 x 9-1/2"	x	x	55	43312	Spacer, Outside, Cutter Spindle	x	x
18	461023	Caster Assembly	x	x	56	43297	Spindle Bushing	x	x
19	48098	Spindle Shield	x	x	57	481035	Nut, Cutter Spindle	x	x
20	04017-16	Capscrew, 5/16-18 x 3/4"	x	x	58	481625-01	Knob, w/stud	x	x
21	461844	Discharge Chute 48V	x		59	04001-51	Bolt, 3/8-16 x 3-3/4" Hex Head	x	x
	461845	Discharge Chute 52V		x	60	43681	Idler Pivot	x	x
22	04021-10	Nut, 5/16-18 Elastic Elastic Stop	x	x	61	483215	Idler Pulley, Belt Clutch	x	x
23	04001-11	Bolt, 5/16-18 x 1-1/2" Hex Head	x	x	62	48224	Bearing	x	x
24	461866	Belt Cover (Includes decals)	x		63	04003-12	Bolt, Carriage 5/16-18 x 3/4"	x	x
	461867	Belt Cover (Includes decals)		x	64	482295	Guide Roller	x	x
25	04043-04	Flat Washer, 3/8" Special	x	x	65	45944	Roller Shaft	x	x
26	04029-03	Wing Nut, 3/8-16 (Large)	x	x	66	481025	Seal, Cutter Spindle	x	x
27	04110-03	U-Nut, 3/8-16	x	x	67	483185	Spring, Chute Return	x	x
28	48926	Tapered Hub	x	x	68	424173	Baffle Weldment 48V	x	
29	04001-172	Bolt, 1/4-20 x 1" Hex Head Grade 8	x	x		424174	Baffle Weldment 52V		x
30	04020-09	Nut, 5/8-11 Hex	x	x	69	04001-62	Bolt, 3/8-16 x 3-1/4" Hex Head	x	x
31	482748	Pulley, Double	x	x	70	04003-23	Bolt, Carriage 3/8-16 x 1"	x	x
32	48087	Belt, RH Blade Drive	x		71	423972	Heatshield	x	x
	48285	Belt, RH Blade Drive		x	72	04021-22	Nut, Hex Lock 5/16-18	x	x
33	48089	Belt, Blade Drive	x		73	04030-03	Lock Washer 5/16	x	x
	48286	Belt, Blade Drive		x	74	424367	Dust Shield	x	x
34	04021-05	Nut, 3/8-16, Nut Centerlock	x	x	75	04001-22	Bolt, 3/8-16 x 2-3/4" Hex Head	x	x
35	04019-04	Nut, 3/8-16, Serrated Flange	x	x					

NOTES

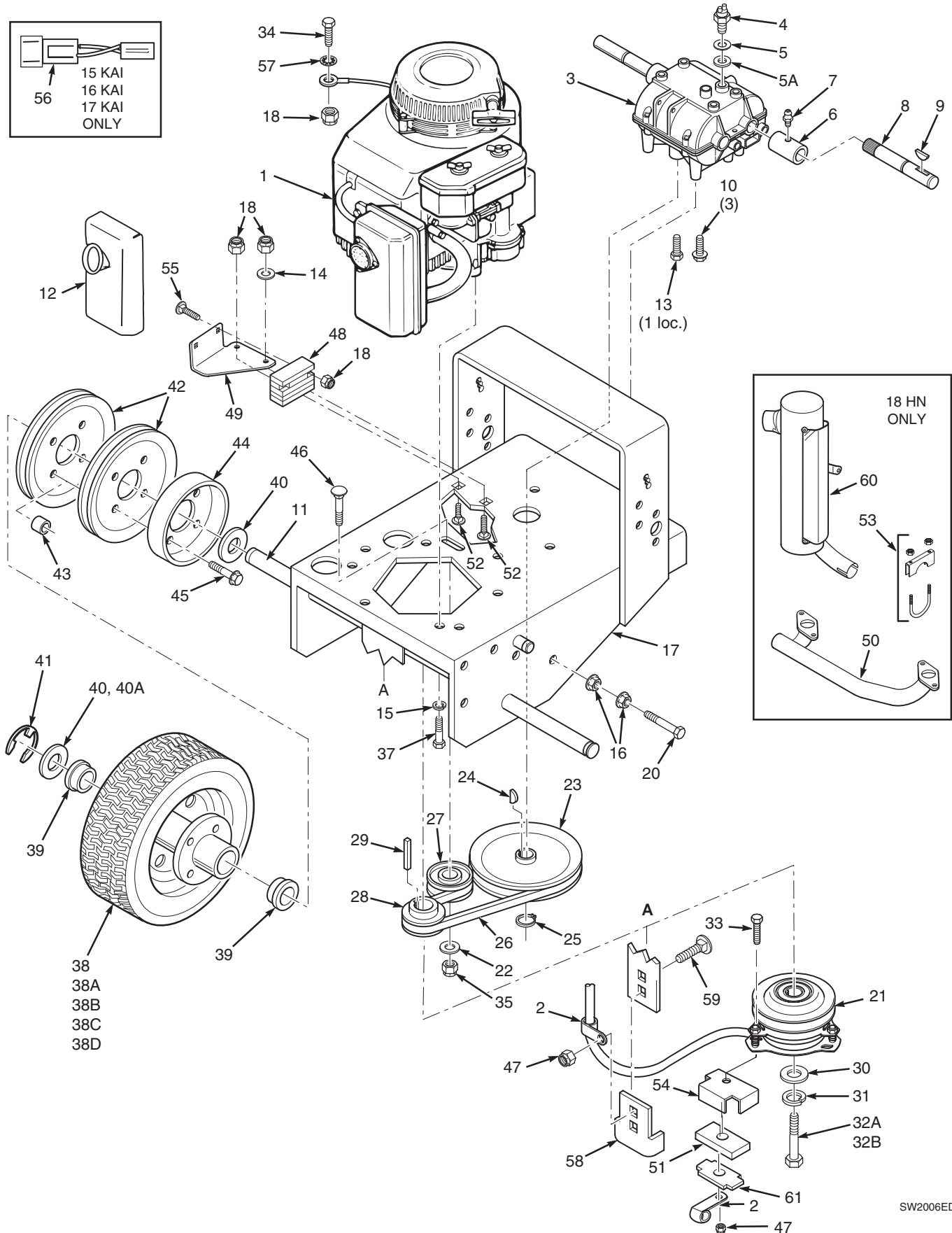
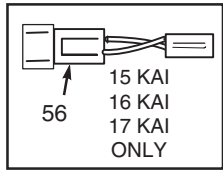
CASTER ASSEMBLY



SW-SWZZ006CSTR

Ref. No.	Part No.	Description	32 36A	48V 52V
1	04066-01	Quick Pin	X	X
2	43037-01	Spacer, Caster Yoke, 1/2" Long	X	X
3	48100-01	Bronze Bearing	X	X
4	48114-04	Grease Fitting	X	X
5	46082	Support Assembly (Includes Items (3 & 4))	X	X
6	45006	Caster Yoke	X	X
7	04021-07	Elastic Stop Nut, 1/2-13	X	X
8	43022	Sleeve, Caster Wheel Bearing	X	X
9	04001-37	Hex Hd. Bolt, 1/3-13 x 5-1/2"	X	X
10	9275	Flat Free Tire Assy. (Includes Items 11-13)	X	X
11	48114-03	Grease Fitting, 45 Degree 1/4-28	X	X
12	481770	Retainer, Bearing, Caster Wheel	X	X
13	481769	Roller Bearing, Caster Wheel	X	X

ENGINE DECK



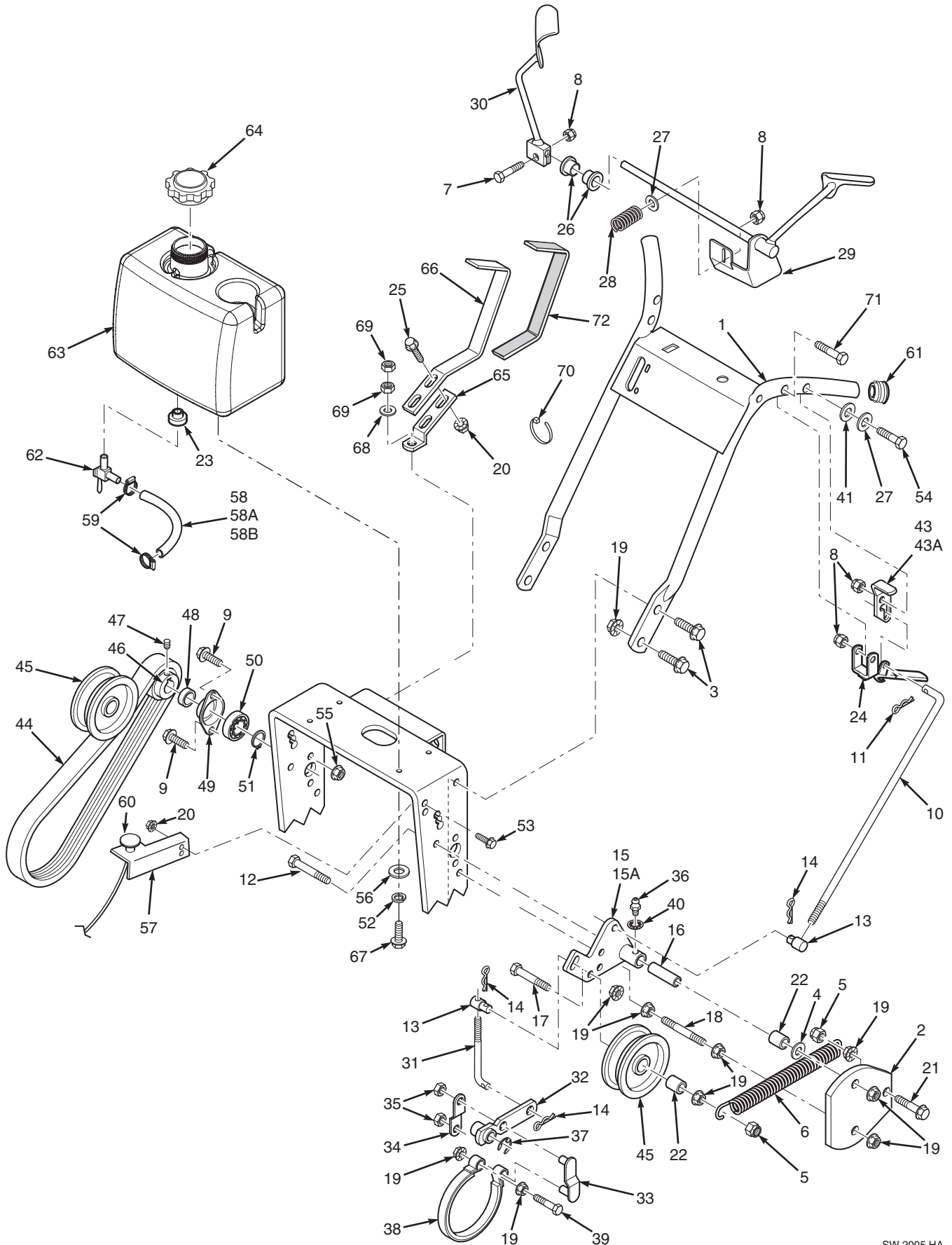
ENGINE DECK

Ref. No.	Part No.	Description	15KH	15KAI	18HN	Ref. No.	Part No.	Description	15KH	15KAI	18HN
			18KH	16KAI	17KAI				18KH	16KAI	17KAI
1	482853	Engine,15HP Kohler (CV 15T, Spec PS-41621)	x			31	04030-05	Lock Washer, 7/16"	x	x	x
	482854	Engine, 18HP Kohler (CV493T, Spec PS-27526)	x			32A	04102-04	Bolt, 7/16-20 x2-1/2" Hex Head		x	x
	482675	Engine, 15HP Kawasaki (Spec FH430V-ASXX-R)		x		32B	04103-03	Cpsrw, M10-1.5 x55 Metric Hex Hd	x		
	483263	Engine, 16HP Kawasaki (Spec FH480V-ASXX-R)		x		33	04001-12	Bolt, 5/16-18 x 1-3/4" Hex Head	x	x	x
	482927	Engine, 17HP Kawasaki (Spec FH541V-ASXX-R)		x		34	04002-07	Bolt, M8-1.25 x 1.0	x		
	482705	Engine, 18HP Honda (Spec GXV610QAF)			x	35	04021-09	Nut, 3/8-16 Elastic Stop	x	x	x
2	48030-09	Cable Clamp	x	x	x	36	04040-15	Flat Washer, 5/16"	x	x	x
3	481580	Transmission, 5-speed (Peerless 700-070, 9 tooth spline)	x	x	x	37	04018-01	Bolt, M8-1.25 x M25 Metric Hex Hd	x		
4	48231	Neutral Safety Switch	x	x	x	38	48192	Wheel Assembly (incl. 38A-38B) (fits SW36,48,52)	x	x	x
5	48122-01	Fibre Washer, thin	x	x	x	38	48253	Wheel Assembly (incl. 38C-38D) (SW32)			x
5A	48122-02	Fibre Washer, thick	x	x	x	38A	481860	Tire, 13 x 6.50-6, 2-ply (fits SW36,48,52)	x	x	x
6	481581	Coupler, Jackshaft	x	x	x	38B	481859	Rim & Bearing Assembly (incl. 39) (fits SW36,48 & 52)	x	x	x
7	48114-05	Grease Fitting, straight 1/4-28	x	x	x	38C	481861	Tire, 13 x 5.00-6 2-ply (SW32 only)			x
8	481582	Jackshaft (fits SW32,36,48 & 52)	x	x	x	38D	481862	Rim Assembly (incl. 39) (SW32 only)			x
9	04063-09	Key, Hi-Pro #9	x	x	x	39	481858	Wheel Bearing (OD 2.000 - 2.005)	x	x	x
10	04017-16	Bolt, 5/16-18 X 3/4" Hex Head	x	x	x	40	04042-05	Washer, 1-1/16 x 1-3/4 x 12 ga	x	x	x
11	43085**	Wheel Axle (SW36,48 & 52)	x	x	x	40A	04041-14	Washer, 1-1/16 x 1-1/2 x 18 ga	x	x	x
	43104**	Wheel Axle (SW 32)	x			41	04050-08	Retaining Ring, 1" Ext.- "E"	x	x	x
12		Muffler (Purchase from Kawasaki)	x			42	48200	Pulley, Wheel Drive	x	x	x
13	04001-08	Bolt, 5/16-18 X 3/4" Hex Head	x	x	x	43	43088	Spacer, Wheel Pulley	x	x	x
14	04040-14	Flat Washer 1/4" (.312 X .75 X .065)	x	x	x	44	48209	Brake Drum	x	x	x
15	04030-03	Lock Wshr. 5/16"	x	x	x	45	04017-19	Bolt, 5/16-18 x 1-1/2" Serrated flange	x	x	x
16	04019-04	Nut, 3/8-16 Serrated Flange	x	x	x	46	04003-03	Bolt, 3/8-16 x 2" Carriage	x	x	x
17	461741	Engine Deck (fits SW32)		x		47	04021-10	Nut, 5/16-18 Elastic Stop	x	x	x
	461743	Engine Deck (fits SW36,48 & 52)	x	x	x	48	***	Rectifier (Purchase from Honda)			x
18	04021-08	Nut, 1/4-20 Elastic Stop	x	x		49	423943	Mounting Bracket, Rectifier			x
19	04019-03	Nut, 5/16-18 Serrated Flange				50	482902	Manifold, Exhaust			x
20	04001-51	Bolt, 3/8-16 x 3-3/4" Hex Head	x	x	x	51	481716	Rubber Pad, Clutch Stop	x	x	x
21	461397	Electric Clutch (Ogura)	x	x	x	52	04003-02	Bolt, 1/4-20 x 3/4" Carriage			x
22	04041-07	Washer, 3/8" (.391 x .938 x .105)	x	x	x	53	482903	Clamp, Muffler			x
23	48197	Pulley, Transmission Input	x	x	x	54	422533	Backing Plate	x	x	x
24	04063-07	Key, Woodruff #9	x	x	x	55	04003-06	Bolt, 1/4-20 x 1" Carriage			x
25	04050-09	Retaining Ring, 5/8" Ext, Basic	x	x	x	56	481717	Wire Harness Adapter (15KAI, 16KAI, 17KAI)			x
26	48203	Belt, Transmission Drive	x	x	x	57	04031-09	Lock Washer Internal Tooth	x	x	
27	483208	Idler Pulley, Transmission	x	x	x	58	421370	Anti Rotation Bracket	x	x	
28	481666	Pulley, Traction Drive	x	x	x	59	04003-04	Bolt, 5/16-18 x 1" Carriage	x	x	
29	04063-19	Key, 1/4 x 1/4 x 3/4"	x	x	x	60	482901	Muffler			x
30	04041-28	Flat Washer, 7/16" Special	x	x	x	61	422534	Plate, Backing	x	x	x

** = Requires welding onto chassis.

*** = Honda part number 31750-769-751

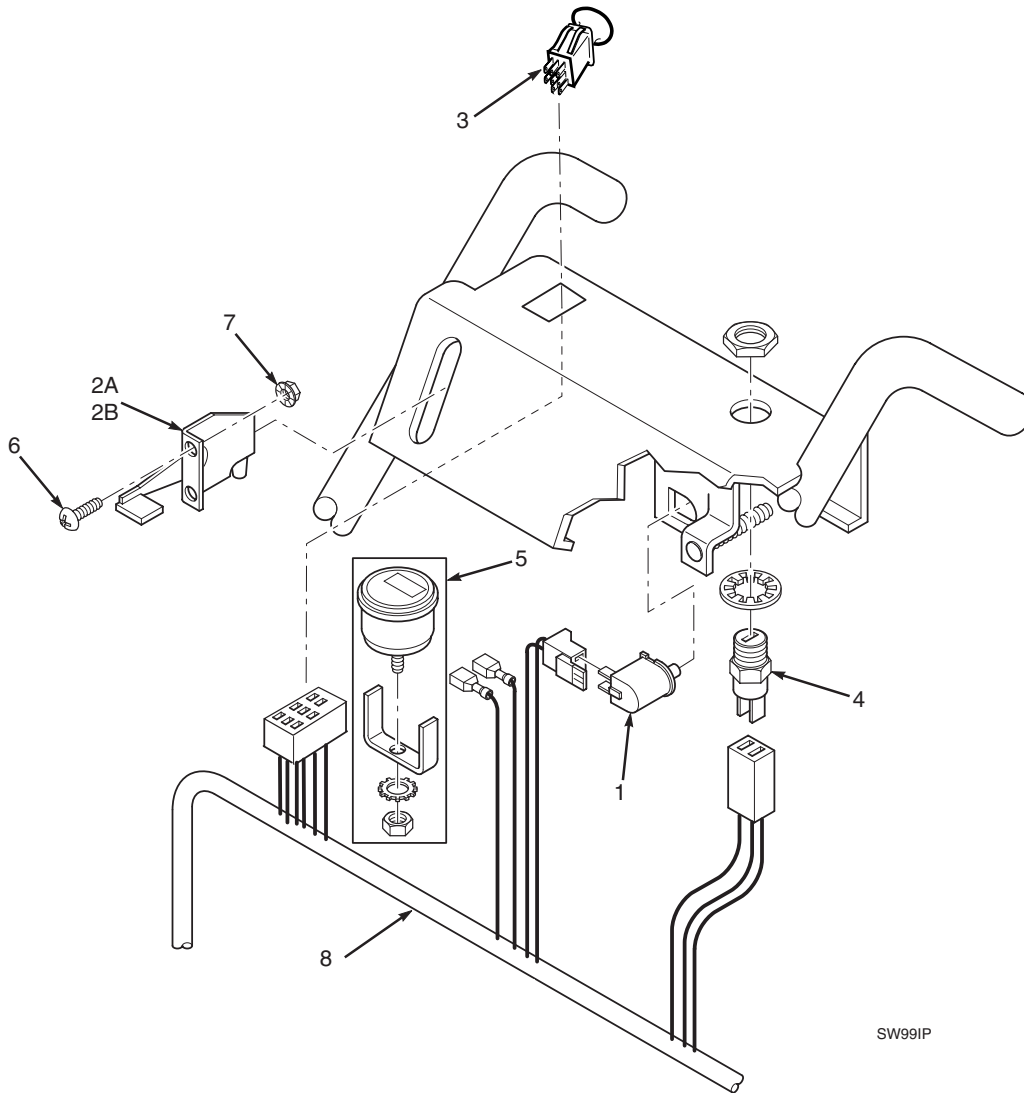
HANDLE ASSEMBLY



HANDLE ASSEMBLY

Ref. No.	Part No.	Description	15KH	15KAI	18HN	Ref. No.	Part No.	Description	15KH	15KAI	18HN
			18KH	16KAI	17KAI				18KH	16KAI	17KAI
1	461830	Handle Assembly	x	x	x	54	04001-17	Bolt, 5/16-18 x 2" Hex Head	x	x	x
2	421360	Belt Guard	x	x	x	55	04019-02	Nut, 1/4-20 Serrated Flange	x	x	x
3	04017-27	Capscrew, 3/8-16 x 1" Serr. Flg.	x	x	x	56	04040-15	Flatwasher, 5/16 (.375 x .875 x .083)	x	x	x
4	04041-07	Washer, 3/8" (.391 x .938 x .105)	x	x	x	57	424113	Bracket, Choke Mt.		x	x
5	04021-09	Nut, 3/8-16 Elastic Stop	x	x	x	58	48058	Fuel Hose, 1/4"ID, 10" (KH Only)	x		
6	48755	Spring, Idler	x	x	x	58A	48058	Fuel Hose, 1/4"ID, 23" (KA Only)		x	
7	04001-10	Bolt, 5/16-18 x 1-1/4" Hex Head	x	x	x	58B	48058	Fuel Hose, 1/4"ID, 26" (Honda Only)			x
8	04021-10	Nut, 5/16-18 Elastic Stop	x	x	x	59	48059-01	Clamp, Fuel Hose	x	x	x
9	04017-05	Capscrew, 1/4-20 x 3/4" Hex Head	x	x	x	60	482314	Choke Control		x	x
10	44140	Control Rod, Steering	x	x	x	61	483161	Plug, Handlebar	x	x	x
11	04062-02	Hair Pin, Small	x	x	x	62	48308	Valve, Fuel Shut Off	x	x	x
12	04001-23	Bolt, 3/8-16 x 4-1/2" Hex Head	x	x	x	63	461729	Fuel Tank Assy.(Incl. Bush. & Val.)	x	x	x
13	43032	Swivel Joint	x	x	x	64	482547	Fuel Tank Cap	x	x	x
14	04062-01	Hair Pin, Large .094 Diameter	x	x	x	65	422279	Shift Lever	x	x	x
15	45847	Idler Bracket, RH	x	x	x	66	461163	Shift Lever Extention (incl. 72)	x	x	x
15A	45846	Idler Bracket, LH	x	x	x	67	04001-09	Capscrew, 5/16-18 x 1" Hex Head	x	x	x
16	43092	Idler Sleeve	x	x	x	68	04041-07	Washer, 3/8 (.391x .938 x .105)	x	x	x
17	04001-62	Bolt, 3/8-16 x 3/4" Hex Head	x	x	x	69	04020-14	Nut, 3/8-24 UNF	x	x	x
18	04004-17	Support Belt Guard	x	x	x	70	48028-05	Cable Tie	x	x	x
19	04019-04	Nut, 3/8-16 Serrated Flange	x	x	x	71	04001-53	Bolt, 5/16-18 x 2-1/2"	x	x	x
20	04019-03	Nut, 5/16-18 Serrated Flange	x	x	x	72	481839	Grip, Shift Handle	x	x	x
21	04017-28	Cpscrew, 3/16-18 x 1-1/4" Serr. Flg.	x	x	x						
22	43286	Spacer	x	x	x						
23	48309	Bushing	x	x	x						
24	483160	Steering Lever	x	x	x						
25	04017-17	Capscrew, 5/16-18 x 1" Serr. Flg.	x	x	x						
26	483142	Bushing	x	x	x						
27	04040-15	Washer, 5/16 (.375 x .875 x .083)	x	x	x						
28	483040	Spring, Operator Presence	x	x	x						
29	451757	Operator Presence Lever, LH	x	x	x						
30	451759	Operator Presence Lever, RH	x	x	x						
31	44005	Brake Rod	x	x	x						
32	45092	Brake Lever	x	x	x						
33	45093	Brake Link	x	x	x						
34	42254	Brake Link Plate	x	x	x						
35	04024-01	Nut, 3/8 Push-on	x	x	x						
36	48114-05	Grease Fitting, Straight 1/4-28	x	x	x						
37	04050-01	Retaining Ring, 5/8 Ext. "E"	x	x	x						
38	48210	Brake Band	x	x	x						
39	04001-45	Bolt, 3/8-16 x 2" Hex Head	x	x	x						
40	04031-08	1/4" Internal Tooth Lockwasher	x	x	x						
41	04032-01	Curved Spring Washer	x	x	x						
42	04015-13	Socket Head Capscrew #8-32 x 1/2"	x	x	x						
43	461242	Neutral Latch, RH	x	x	x						
43A	461241	Neutral Latch, LH	x	x	x						
44	48202A	Belt, Wheel Drive	x	x	x						
45	483211	Idler Pulley, Wheel Drive	x	x	x						
46	482645	Pulley, Jackshaft (Inc. 47)	x	x	x						
47	04012-04	Setscrew, Hex Socket Knurl Cup Pt. 5/16-18 (nylock)	x	x	x						
48	43098	Spacer, Jackshaft Pulley	x	x	x						
49	48223	Flange, Jackshaft Bearing	x	x	x						
50	48224	Bearing, Jackshaft	x	x	x						
51	04050-09	Retaining Ring, 5/8 Ext. Basic	x	x	x						
52	04030-03	Lock Washer 5/16"	x	x	x						
53	04017-16	Capscrew, 5/16-18 x 3/4" Serr. Flg.	x	x	x						

INSTRUMENT PANEL

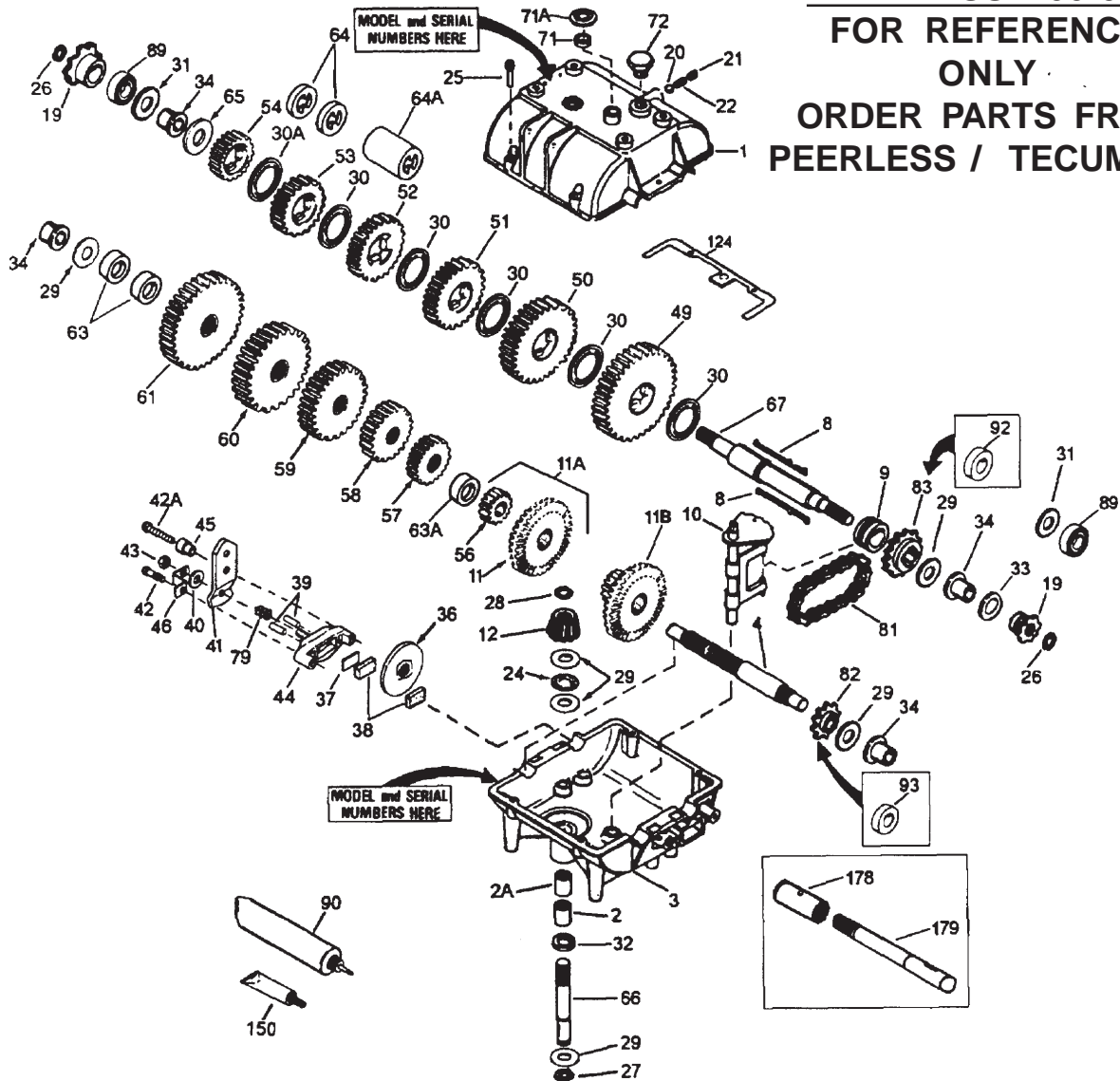


SW99IP

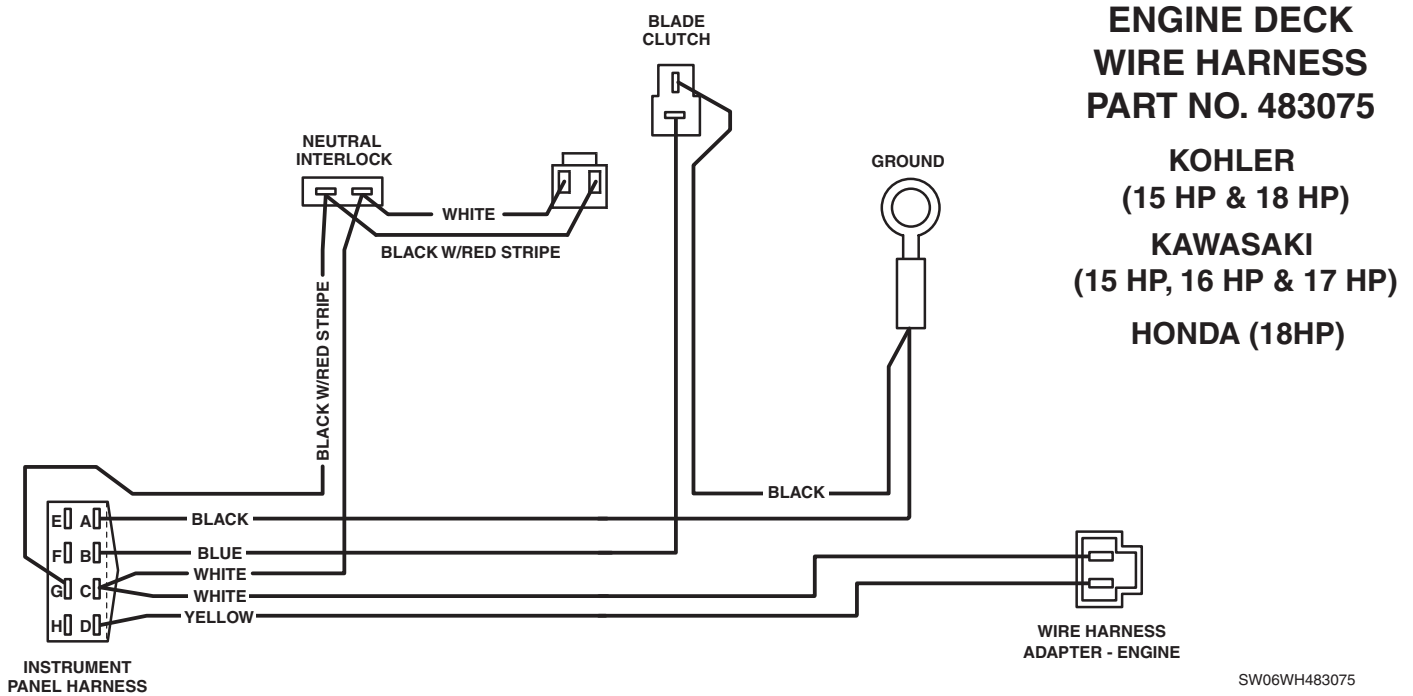
Ref. No.	Part No.	Description	15KH 18KH	15KAI 16KAI 17KAI	18HN
1	48717	Switch, Neutral Interlock	X	X	X
2A	482814	Throttle Control	X		
2B	48946	Throttle Control		X	X
3	483162	Engagement Switch, Electric Clutch	X	X	X
4	48609	Key Switch (Includes hardware)	X	X	X
5	48023	Hour Meter (dealer installed)	X	X	X
6	*	Screw, #10-32 x .50 Phillips Washer Head	X	X	X
7	04019-01	Nut, #10-32 Serrated Flange Hex Head	X	X	X
8	482711	Handle Wire Harness, Manual Start	X	X	X
NS	48030-09	Clamp, Wire Harness	X	X	X

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

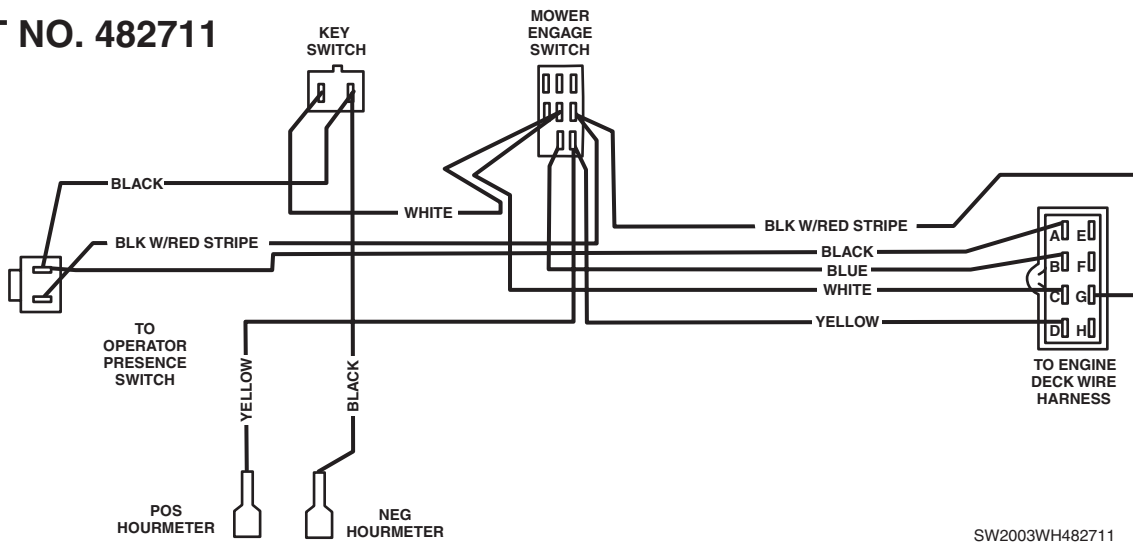
**PEERLESS 700-070
FOR REFERENCE
ONLY
ORDER PARTS FROM
PEERLESS / TECUMSEH**

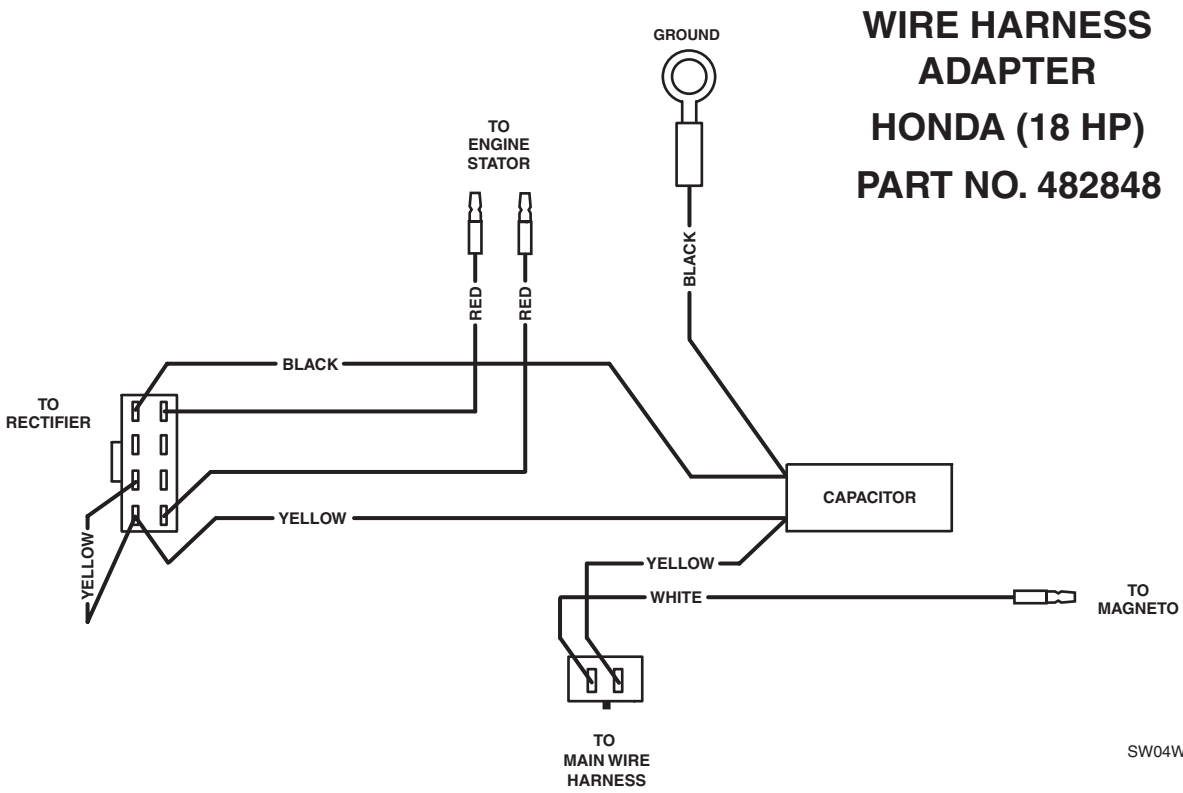


Ref. Part No.	Part No.	Description	REF. PART NO.	NO.	DESCRIPTION
1	772083A	Case, Transmisson	50	778125	Spur Rear (35 teeth)
2	780086A	Needle Bearing Grease Spec	51	778239A	Spur Gear (32 teeth-steel)
2A	780142	Needle Bearing	52	778124A	Spur Gear (30 teeth)
3	770061A	Case, Transmission	53	778123A	Spur Gear (25 teeth)
8	792089A	Shift Key	56	778145	Spur Gear (12 teeth-steel)
9	784266	Shift Collar	57	778151	Spur Gear (15 teeth)
10	784376	Shift Rod & Fork	58	778240	Spur Gear (18 teeth-steel)
11	778154	Bevel Gear (42 teeth)	59	778126A	Spur Gear (20 teeth)
12	778176	Bevel Pinion (14 teeth-steel)	60	778127A	Spur Gear (25 teeth)
20	792077	Steel Ball, 5/16" dia.	65	780139	Washer
21	792078	Set Screw, 3/8-16 x 3/8"	66	776135	Input Shaft (3-11/16" long)
22	792079	Spring	67	776402	Shifter & Brake Shaft
24	780071	Thrust Bearing	71	788069	Square Cut Ring
25	792073	Screw, 1/4-20 x 1-1/4" (6)	72	792074	Threaded Plug (Shipping only, not used)
27	792035	Retaining Ring	81	786081	Roller Chain (No. 41 chain, 24 links)
28	788040	Retaining Ring	82	786082	Sprocket (9 teeth)
29	780072	Washer (6)	83	786083	Sprocket (18 teeth)
30	780108	Washer (5)	90	788067B	Grease (32 oz. bottle Bentonite grease)
32	792001	"O" Ring	150	510334	Gasket Eliminator (Loctite #515)
34	780105A	Flanged Bushing	178	*	Coupling (See page 24-25 for part number)
49	778146A	Spur Gear (37 teeth)	179	*	Connector Shaft (See page 24-25 for part number)



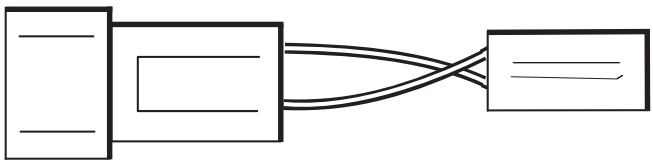
HANDLE WIRE HARNESS MANUAL START PART NO. 482711



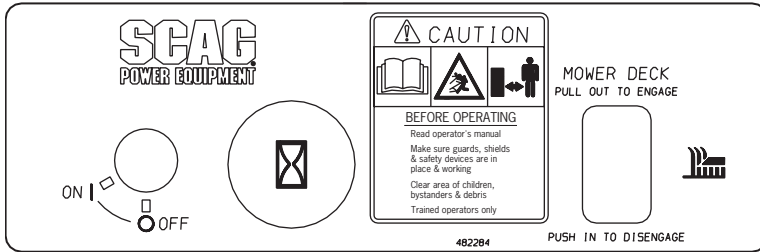


SW04WH482848

**WIRE HARNESS ADAPTER
PART NO. 481717
KAWASAKI
(15 HP, 16 HP & 17 HP)**



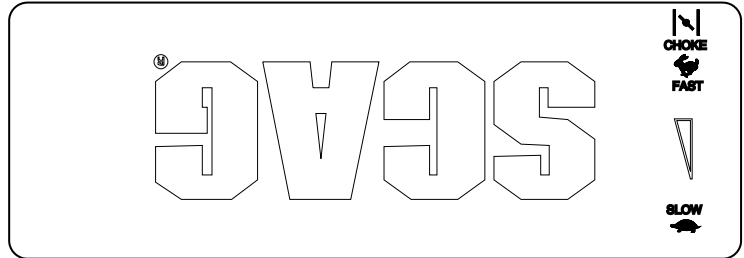
SW2006WH481717



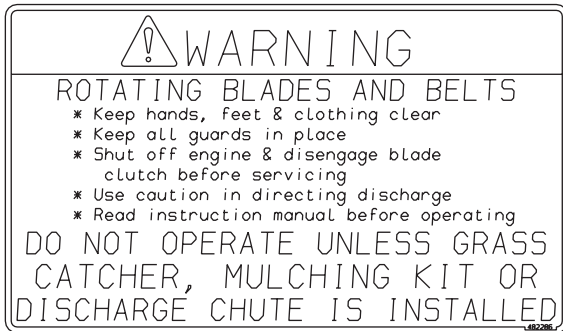
482284



48314



481122



482286



32" - 48315
36" - 482297



48" - 483199
52" - 483200

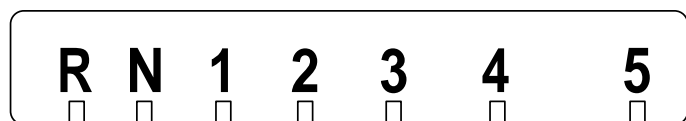
482816

CUTTING HEIGHT ADJUSTMENT

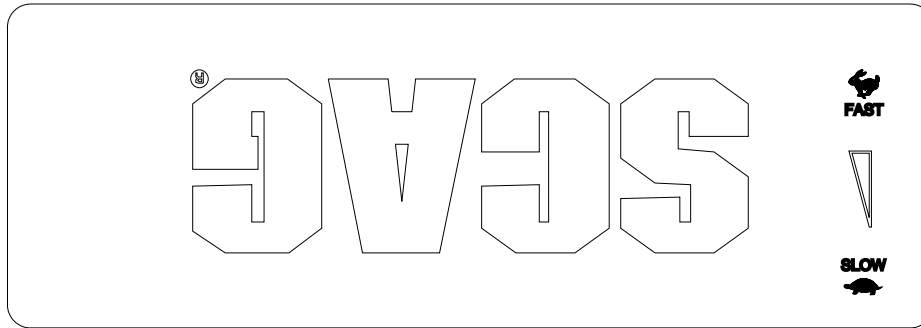
DECK MOUNTING HOLE POSITION
NUMBER OF CASTER SPACERS (BELOW SUPPORT)

	NUMBER OF SPACERS ABOVE CUTTER BLADES						
	0	1	2	3	4	5	
TOP	0	-	-	2-3/8	2-1/8	1-7/8	1-5/8
MIDDLE	0	-	-	2-5/8	2-3/8	2-1/8	1-7/8
MIDDLE	1	-	-	2-3/4	2-1/2	2-1/4	2
BOTTOM	2	-	-	-	-	2-7/8	2-5/8
BOTTOM	3	-	4	3-3/4	3-1/2	3-1/4	3
BOTTOM	4	4-3/8	4-1/8	3-7/8	3-5/8	3-3/8	3-1/8

482816



48332



481483



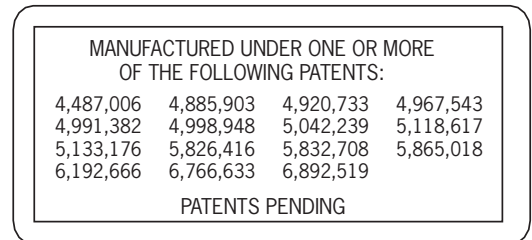
483206



481971



481039



483044



48404



482165



481109

LIMITED WARRANTY - COMMERCIAL EQUIPMENT

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. This warranty is limited to the original purchaser and is not transferable. 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, blades, hydraulic hoses and tires are warranted for ninety (90) days.
- * Batteries are covered for ninety (90) days.
- * Frame and structural components including oil reservoir, fittings, and oil coolers are warranted for 2 years (Parts and labor 1st year; Parts only 2nd year).
- * Cutter decks are warranted against cracking for a period of three (3) years. (Parts and labor 1st year; Parts only 2nd and 3rd year) 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, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.
- * Engines and electric starters are covered by the engine manufacturer's warranty period.
- * Major drive system components are warranted for two (2) years by Scag Power Equipment. (Parts and labor 1st year; Parts only 2nd year) (Two year warranty exclude fittings, hoses, drive belts). The repair or replacement of the hydraulic pump or hydraulic motor 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.
- * Electric clutches have a Limited Warranty for 2 year (Parts and labor 1st year; Parts only 2nd year).
- * Cutter Spindle Assemblies 461663 have a Limited Warranty for three years (Parts and labor 1st year; Parts only 2nd and 3rd year).
- * 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.

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. 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 two (2) year warranty period 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 two year 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.