OPERATION AND PARTS MANUAL



SideWinder MODEL SHS81A CUT-OFF SAW

Revision #0 (01/30/08)

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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents, and some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks.
- Cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: <u>ALWAYS</u> work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.



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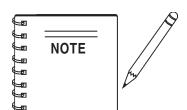
STOW — SHS81A CUT-OFF SAW

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Specifications and part numbers are subject to change without notice.

When ordering parts, please supply the following information:

- □ Dealer account number
- Dealer name and address
- ☐ Shipping address (if different than billing address)
- □ Return fax number
- ☐ Applicable model number
- Quantity, part number and description of each part
- □ Specify preferred method of shipment:
 - ✓ FedEx or UPS Ground
 - ✓ FedEx or UPS Second Day or Third Day
 - ✓ FedEx or UPS Next Day
 - ✓ Federal Express Priority One
 - ✓ DHL
 - Truck

Note: Unless otherwise indicated by customer, all orders are treated as "Standard Orders", and will ship within 24 hours. We will make every effort to ship "Air Shipments" the same day that the order is received, if prior to 2PM west coast time. "Stock Orders" must be so noted on fax or web forms.



Here's how to get help...

Please have the model and serial number on hand when calling.

l .	
Parts Department 800-427-1244	Fax: 800-672-7877
310-537-3700	Fax: 310-637-3284
Service Department	F040 507 4050
800-478-1244 310-537-3700	Fax: 310-537-4259
Technical Assistance	
800-478-1244	Fax: 310-631-5032
Warranty Department	
800-421-1244, Ext. 279	Fax: 310-537-1173
310-537-3700, Ext. 279	
Sales Department	
310-661-4242	Fax: 310-604-9237

877-289-7869 (877-BUY-STOW)

Place Your Parts Order Via Web or Fax For Even More Savings!

Extra Discounts!

All parts orders which include complete part numbers and are received by our automated web parts order system, or by fax qualify for the following extra discounts:

Ordered via	Standard orders	Stock orders (\$750 list and above)
Fax	3%	10%
Web	5%	10%

Special freight allowances when vou order 10 or more line items via Web or Fax! **

FedEx Ground Service at no charge for freight No other allowances on freight shipped by any other

NOTE: DISCOUNTS ARE SUBJECT TO CHANGE

STOW STOW CONSTRUCTION EQUIPMENT

A DIVISION OF MULTIQUIP INC. POST OFFICE BOX 6254 CARSON, CA 90749 310-537-3700 • 888-252-STOW [888-252-7869] FAX: 310-537-1986 • FAX: 800-556-1986 E-MAIL: stow@multiquip.com • WWW: stowmfg.com Direct TOLL-FREE access to our Parts Department:

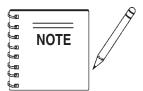
Toll-free nationwide — 800-427-1244

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SHS81A CUT-OFF SAW — SAFETY MESSAGE ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.



This Owner's Manual has been developed to provide complete instructions for the safe and efficient operation of the STOW MODEL SHS81A *CUT-OFF SAW*. For engine maintenance information, please refer

to the maintenance section of this manual for data relative to its safe operation.

Before using this SAW, ensure that the operating individual has read and understands all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three (3) Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**, **WARNING**, or **CAUTION**.



DANGER

You **WILL** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.



WARNING

You **CAN** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.



CAUTION

You **CAN** be **INJURED** if you **DO NOT** follow directions.

HAZARD SYMBOLS



Lethal Exhaust Gases



Engine exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.



Explosive Fuel



Gasoline is extremely flammable, and its vapors can cause an explosion if ignited. DO NOT start the engine near spilled fuel or combustible fluids. DO NOT fill the fuel tank while the engine is running or hot. DO NOT overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system. Store fuel in approved containers, in well-ventilated areas and away from sparks and flames. NEVER use fuel as a cleaning agent.



Burn Hazards



Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operations. **NEVER** operate the engine with heat shields or heat guards removed.



Rotating Parts



NEVER operate equipment with covers, or guards removed. Keep *fingers*, *hands*, *hair* and *clothing* away from all moving parts to prevent injury.

SHS81A CUT-OFF SAW — SAFETY MESSAGE ALERT SYMBOLS



Accidental Starting



Respiratory Hazard



ALWAYS place the engine ON/OFF switch in the **OFF** position, when the saw is not in use.



ALWAYS wear approved respiratory protection.



Over Speed Conditions



Sight and Hearing hazard



NEVER tamper with the factory settings of the engine governor or settings. Personal injury and damage to the engine or equipment can result if operating in speed ranges above maximum allowable.



ALWAYS wear approved eye and hearing protection.



Guards and Covers In Place



Equipment Damage Messages



NEVER operate the saw without blade guards and covers in place. Adhere to safety guidelines ANSI, OSHA, or other applicable local regulations.

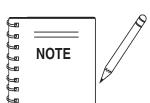
Other important messages are provided throughout this manual to help prevent damage to your concrete saw, other property, or the surrounding environment.



Rotating Blade



Rotating blade can cut and crush. Keep hands and feet clear.



This *concrete/asphalt saw*, other property, or the surrounding environment could be damaged if you do not follow instructions.

A

WARNING - Read This Manual

Failure to follow instructions in this manual may lead to **Serious Injury** or even **Death**. This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the STOW SHS81A Cut-off Saw.

SAFETY

■ **DO NOT** operate or service this equipment before reading this entire manual.



- This equipment should not be operated by persons under 18 years of age.
- **NEVER** operate the saw without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.











- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.
- **NEVER** operate the saw under the influence or drugs or alcohol.







- **NEVER** use accessories or attachments, which are not recommended by STOW for this equipment. Damage to the equipment and/or injury to user may result.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- ALWAYS check the saw for loosened hardware such as nuts and bolts before starting.

■ **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing the saw.



- **High Temperatures** Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot!* components can cause serious burns.
- The engine of this saw requires an adequate free flow of cooling air. NEVER operate the saw in any enclosed or narrow area where free flow of the air is restricted. If the air flow is



restricted it will cause serious damage to the saw's engine and may cause injury to people. Remember the saw's engine gives off **DEADLY** carbon monoxide gas.

- ALWAYS refuel in a well-ventilated area, away from sparks and open flames.
- ALWAYS use extreme caution when working with flammable liquids. When refueling, STOP the engine and allow it to cool.



■ NEVER <u>smoke</u> around or near the saw. Fire or explosion could result from *fuel vapors*, or if fuel is spilled on a *hot!* engine.



- NEVER operate the saw in an explosive atmosphere where fumes are present or near combustible materials. An explosion or fire could result causing severe **bodily harm** or even death.
- ALWAYS move the saw at least 10 feet away from the fueling point before starting the engine and make sure the gas cap on the saw and the fuel can are properly tightened.
- Topping-off to filler port is dangerous, as it tends to spill fuel.
- NEVER use fuel as a cleaning agent.

General Safety

ALWAYS read, understand, and follow procedures in Operator's Manual before attempting to operate this equipment.

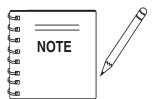


■ **ALWAYS** wear proper respiratory (mask), hearing and eye protection equipment when operating the saw.



- **ALWAYS** be sure the operator is familiar with proper safety precautions and operating techniques before using the saw.
- **ALWAYS** inspect the blade, flanges and shafts for damage before installing the blade.
- ALWAYS use high-speed, reinforced, abrasive blades 1/8" (3.17 mm) thick (minimum) or high-speed, diamond blades specifically rated with a maximum operating speed of at least 5,400 RPM on 14" (350 mm) or 6,200 RPM on 12" (300 mm).
- ALWAYS use high-speed reinforced, abrasive blades or high-speed, diamond blades marked with a 1" (25.4 mm) hole for a 1" (25.4 mm) flange, or a 20 mm hole for a 20 mm flange.
- **ALWAYS** use abrasive blades or high-speed diamond blades marked for use with gasoline-powered, hand-held, portable, abrasive cutting-off saws.
- **ALWAYS** read all safety materials and instructions that accompany any blade used with this saw.
- ALWAYS inspect each blade carefully before using it. If there are any signs of damage or unusual wear, DO NOT USE THE BLADE.
- **ALWAYS** verify the blade arbor hole matches the saw's spindle before mounting the blade.
- ALWAYS mount the blade *solidly* and *firmly*. Wrench tighten the arbor nut.
- ALWAYS make sure the blade and flanges are clean and free of dirt and debris before mounting the blade on the saw.
- ALWAYS use the correct blade for the type of work being done. Check with blade manufacturer if you do not know if blade is correct for desired application.

- ALWAYS hold the saw with both hands when the engine is running. Use a firm grip with thumbs and fingers encircling the handles.
- **ALWAYS** keep all parts of the body away from the cutting-off blades when the engine is running.
- ALWAYS keep the handles dry, clean and free of oil or fuel.
- **ALWAYS** carry the saw with the engine stopped and the muffler away from the body.
- ALWAYS instruct bystanders on where to stand while the saw is in operation.
- **ALWAYS** clear the work area of unnecessary people.
- **NEVER** allow anyone to stand in front of or behind the blade while the engine is running.
- **ALWAYS** make sure the blade is not contacting any objects before starting the engine.
- ALWAYS check for buried electrical cables before sawing. If unsure, contact the local utilities.
- **ALWAYS** have all service and maintenance performed by competent trained service personnel.
- ALWAYS clean the saw after each day's use.
- ALWAYS have a copy of this manual at the job site.
- ALWAYS <u>stop</u> the engine before servicing, adding fuel and oil.
- **ALWAYS** service air cleaner frequently to prevent carburetor malfunction.
- ALWAYS keep clear of *rotating* or *moving parts* while the saw is in operation.
- ALWAYS maintain this saw in a safe operating condition at all times.
- ALWAYS keep any inexperienced and unauthorized people away from the saw at all times.
- ALWAYS store saw properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.



This saw is designed for certain applications only. **DO NOT** use or modify this saw for any application other than for which it was designed.

- **NEVER** leave the machine *unattended* while running.
- **NEVER** run the engine without the air filter. Severe engine damage could occur.
- **NEVER** wear jewelry or loose fitting clothing that may snag on the controls or moving parts, this can cause a serious injury.
- **NEVER** operate this saw without the blade guard, or other protective guards in place.
- **NEVER** stand behind or in front of the blade path while the engine is running.
- **NEVER** use abrasive blades that are less the 1/8" (3.17 mm) thick.
- **NEVER** exceed maximum blade speed shown for each blade size. Excessive speed could result in blade breakage.
- **NEVER** use a damaged saw or blades.
- **NEVER** try to stop a moving blade with your hand.
- **NEVER** use an abrasive blade that has been dropped.
- NEVER use carbide-tipped or toothed type blades of any kind.
- **NEVER** use segmented diamond blades unless they are specifically designed for high-speed, hand-held saws.
- **NEVER** place 1 inch (25.4 mm) arbor hole blades on 20 mm flanges.
- **NEVER** use the side of a cutting-off blade as a grinder.
- **NEVER** cock, jam or wedge the blade in the cut.
- **NEVER** operate the saw if the blade does not stop rotating when the throttle trigger is released.
- **NEVER** start cutting until you have a clear work area and secure footing.
- **NEVER** allow other persons to be near the saw when starting, refueling, or when the saw is operating.
- **NEVER** allow bystanders or animals in the work area while using a cutting-off machine.
- **NEVER** touch a dry cutting diamond blade immediately after use. These blades require several minutes to cool after each cut.
- **NEVER** use damaged or worn blade flanges. Discard any damage or worn saw parts.
- **NEVER** allow blade exposure from the guard to be more than 180 degrees.
- **NEVER** operate this saw without both hands on the handles.

Diamond Blade Safety

■ Use appropriate steel centered diamond blades manufactured for use on concrete saws.

WARNING

- ALWAYS inspect diamond blades before each use. The
 - blade should exhibit no cracks, dings, or flaws in the steel centered core and/or rim. Center (arbor) hole must be undamaged and true.



- Ensure the blade is marked with an operating speed greater than the blade shaft speed of the saw.
- Only cut the material that is specified by the diamond blade. Read the specifications of the diamond blade to ensure the proper tool has been matched to the material being cut.
- ALWAYS keep blade guards in place. Exposure of the diamond blade must not exceed 180 degrees.
- Ensure that the diamond blade does not come into contact with the ground or surface during transportation. DO NOT drop the diamond blade on ground or surface.
- The engine governor is designed to permit maximum engine speed in a no-load condition. Speeds that exceed this limit may cause the diamond blade to exceed the maximum safe allowable speed.
- Ensure that the blade is mounted correctly for proper operation.

Saw Transportation Safety

- **NEVER** transport the saw with the blade mounted.
- ALWAYS use caution when *lifting* and *transporting* this saw.
- ALWAYS tie-down the saw when transporting.
- **ALWAYS** use caution and follow the instructions when loading and unloading the saw.

EMERGENCIES

■ ALWAYS know the location of the nearest *fire extinguisher*.



■ ALWAYS know the location of the nearest *first aid kit*.



■ In emergencies *always* know the location of the nearest phone or *keep a phone on the job site*. Also know the phone numbers of the nearest *ambulance*, *doctor*, and *fire department*. This information will be invaluable in the case of an emergency.









SHS81A CUT-OFF SAW — SPECIFICATIONS

Table 1. SHS81A Cut-off Saw Specifications		
Dimensions (Shipping) LxWxH	50 x 18 x 33 in (1270 x 457 x 838 mm)	
Weight (without blade)	25.1 lbs. (11.4 kg)	
Blade Size	12 in. (305 mm) 14 in. (356 mm)	
Maximum Cut Depth	4 in. (100 mm) 5 in. (127 mm)	
Arbor Size	1 in. (25.4 mm)	
Cutting Arm	Reversible	

Table 2. SHS81A I	Power Source S	pecifications	
Engine Type	Two-Stroke, Single	Two-Stroke, Single Cylinder, Air cooled	
Displacement	4.92 cu. in	. (80.7 cc.)	
Maximum Spindle Speed	5,100	RPM	
Engine Speed	10,000	0 RPM	
Idle Speed	2,500	RPM	
Dimensions (LxWxH)	1	x15.75 in. x 400 mm)	
Fuel Tank Capacity	.23 Gallons	s (.9 Liters)	
Fuel/Oil Mix Ratio	See Fig	gure 22	
Starting Method	Recoi	l Start	
Ignition	Туре	Electronic Speed Controlled	
	Gap	.014 in. (.35 mm)	
	Manufacturer	Champion/NGK	
Spark Plugs	Туре	RCJ7Y/BPR6A	
	Gap	.02 in (.5 mm)	
	Manufacturer	Walbro	
Carburetor	Model	WJ85	
	Туре	Diaphragm/ Semi-Fixed Jet EPA Approved	

SHS81A CUT-OFF SAW — DECAL PLACEMENT



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SHS81A CUT-OFF SAW — CONTROLS & COMPONENTS



Figure 2. SHS81A Cut-off Saw Components 1

Figures 2 and 3 shows the location of the basic controls or components for the Multiquip Model SHS81A Cut-off Saw. Listed below is a brief explanation of each control or component.

- Air Filter Prevents dirt and debris from entering the engine air intake. Check filter periodically and keep cleaned or replace when necessary. NEVER run engine with a dirty air filter.
- 2. **Muffler** Used to reduce noise and emissions. **NEVER!** touch muffler when engine is running. Allow engine to cool down. This component gets extremely hot!
- Guard Adjustmet Knob Allows for the adjustment of the blade guard. Turn this knob clockwise to tighten, counter-clockwise to loosen.
- Pulley Lock Pin Hole Insert a phillips head screw driver or similar tool into this hole to prevent the pulley from rotating.
- V-belt Tensioning Cam Allows for the adjustment of the V-belt. To tighten V-belt turn clockwise, to slacken turn counterclockwise.
- V-belt Cover (Pulley) Unscrew these 3 nuts to remove the pulley V-belt cover. NEVER operate the saw with this cover removed.

- 7. **Roller Wheel** Allows for easy free movement of the saw when cutting on a flat surface.
- V-belt Cover (Clutch) Unscrew these 2 nuts to remove the clutch V-belt cover. NEVER operate the saw with this cover removed. It may be necessary to remove the pulley cover first before this cover can be removed.
- 9. **Decompression Valve** Push inward when starting engine.
- Choke Lever Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
- 11. Rear Handle When starting engine, place right foot onto rear handle base. For normal operation always place one hand on the rear handle and the other hand on the upper handle. Always use two hands when operating the saw.
- 12. **Engine ON/OFF Switch ON** position permits engine starting, **OFF** position stops engine operation.

SHS81A CUT-OFF SAW — CONTROLS & COMPONENTS



Figure 3. SHS81A Cut-off Saw Components 2

- 13. Blade Guard Covers saw blade.
- 14. **Front Handle** When lifting or carrying of the saw is required, use this handle.
- 15. **Throttle Lock Lever** Using your thumb, press this lever downward and squeeze the trigger lever to lock the throttle in place. This will allow the saw blade to rotate at maximum speed without having to hold the trigger lever. Squeeze the trigger lever again to unlock the throttle.
- Variable Throttle Lever To obtain a variable blade speed, press this lever downward then squeeze the throttle trigger.
- 17. **Throttle Trigger Lever** Squeeze this lever to start the saw blade rotation. Release the trigger lever to stop the saw blade rotation. This lever is to be used in conjunction with either the throttle lock or variable throttle levers.

- 18. Fuel Filler Cap Remove this cap to add mixed fuel (requires a 50:1 mixture) to the fuel tank. This saw uses a 2-stroke engine. Make sure fuel cap is tightened securely. DO NOT over fill. See Figure 25 for correct fuel to oil mixture.
- 19. **Recoil Starter (pull rope)** Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.
- 20. **Blade Shaft Nut** Loosen to remove the cutting blade from the outer and inner flanges.
- 21. **Cutting Blade** Use appropriate type blades for desired cutting application.
- 22. **Spark Plug** Provides spark to the ignition system. Set spark plug gap to 0.02 inch (0.5 mm). Clean spark plug once a month.

SHS81A CUT-OFF SAW — BLADE INSTALLATION INSTRUCTIONS

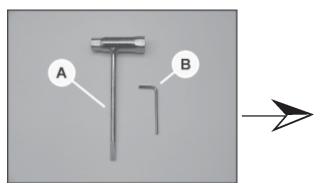


Figure 4. Tool Kit

Blade Installation Procedure

STEP 1

For proper installation, first remove the *blade shaft nut* **1**, *outer* flange **2**, and *inner* "dual-arbor" flange **3**.

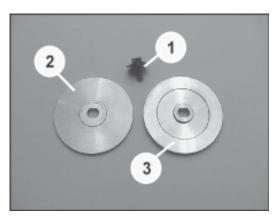


Figure 5. Inner and Outer Flanges (Removal)

STEP 2

A dual sided, "dual-arbor" *inner flange* 3 accommodates either a 20 mm or 1-inch arbor hole for operator safety and convenience. The *outer flange* 2 fits on top of the cutting blade.

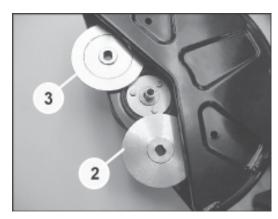


Figure 6. Inner and Outer Flanges (Placement)

The Multiquip Side Winder Cut-Off Saw comes with a Tool Kit (Figure 4) that assists you with day to day operations. You will need these tools for the assembly of your saw.

Item is a versatile screwdriver/wrench that accommodates common bolt/screw and nut head sizes of your saw.

Item is the wrench necessary to accommodate various allen screws.

STEP 3

Chose the proper *blade arbor* side of the *inner flange* (to match your cutting blade arbor) and place this selected side to the blade shaft 4.



Figure 7. Selecting the Proper Blade Arbor

STEP 4

Match the arbor side to the dimension of your blade arbor and "sandwich" between the inner and outer flanges. Tighten the blade shaft nut ① securely to hold the blade in place.



Figure 8. Securing the Cutting Blade

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SHS81A CUT-OFF SAW — WATER KIT INSTALLATION INSTRUCTIONS

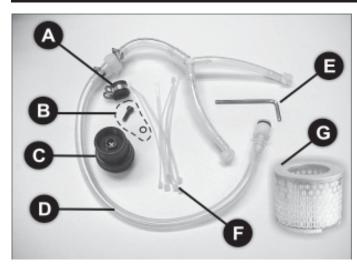


Figure 9. Water Kit Parts

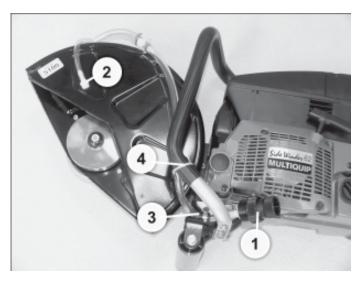


Figure 10. Water Kit Assembly Points



Figure 11. Wet Air Filter Canister

Contents of Water Kit

The contents of the Water Kit cannot be purchased seperately. See Water Kit Assembly in Parts Section of this manual for Water Kit part number.

Hose Clamp <

Socket Head Cap Screw w/ Washer

Quick Disconnect Fitting •

Water Hose 🚓

Hex Key Tool _ (Included with Tool Kit)

Plastic Ties ှ

Wet Air Filter Canister ★ (Sold Seperately)
Water Kit Installation Procedure

- Connect the Quick Disconnect Fitting to the single end of the Water Hose ...
- Snap fit the *Water Hose* Outlets to the *Holes* in the *Blade Guard*. Orient the *Water Hose* through the Front Handle.
- Loop the *Hose Clamp* around the *Water Hose* and fasten the clamp to the *Roller Bar Support Arm* using the Socket Head Cap Screw w/ Washer, and Hex Key Tool.
- ▶ Use the *Plastic Ties* → as preferred to further secure the hose fittings and water hose to the saw.
- When using the Water Kit option for your saw, the <u>Dry Air</u>

 Filter Canister MUST be replaced with the <u>Wet Air Filter</u>

 Canister ★ (See Air Filter Kit Assembly in Parts

 Section of this manual).

SHS81A CUT-OFF SAW — BLADES

PREPARATION / PRE-INSPECTION

 Read and fully understand this manual, the safety instructions in particular, and the engine manufacturer's manual supplied with the saw.



- 2. Select the correct blade for each application. If abrasive blades are used, MAKE CERTAIN they are designed for use on a concrete floor saw. They must be reinforced and have a hole for the driving pin. When wet cutting with an abrasive blade, MAKE CERTAIN the blade is intended for wet cutting. Water will destroy a dry cut abrasive blade. Some diamond blades require water cooling and failure to do so will destroy them almost immediately. Other diamond blades can be used with or without water.
- Handle all blades with care and NEVER use a damaged blade. NEVER use an abrasive blade that has been dropped.

BLADES

Saw blades, or cutting disks, are available in either an abrasive design or as diamond blades. Either blade will work on the SHS81ACUT-OFF SAW, however, diamond blades are recommended. Ask your dealer about your specific cutting application.

SAW BLADE INSPECTION



WARNING



Failure to thoroughly inspect the diamond blade (Figure 12) for operational safety could result in damage to the blades or the saw and may cause injury to the user or others in the operating area.

 Stress Relief Holes (Gullets) - Check the steel core for cracks that may have propagated from the slots and/or gullets. Cracks indicate extreme fatigue failure and if sawing continues, catastrophic failure will occur.

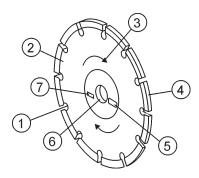


Figure 12. Diamond Blade

- 2. Edge of the Steel Core Check the diameter edge for discoloration (blue oxidation) indicating an overheating condition caused by insufficient cooling water/air. Overheating of blades may lead to loss of core tension and/ or increase the possibility for blade failure. Make sure the steel core's width is uniform about the rim of the blade, and not succumbing to an "under-cutting" condition brought about by highly abrasive material or improper under-cutting core protection
- Directional Arrow Ensure that the blade is oriented properly on the blade shaft for sawing. Reference the directional arrow on the blade and place it so the direction of rotation "downcuts" with the turn of the shaft.
- 4. Diamond Segment or Rim Ensure there are no cracks, dings, or missing portions of the diamond segment/rim. DO NOT use a blade that is missing a segment or a portion of the rim. Damaged and /or missing segments/rims may cause damage to your saw or injury to the user or others in the operating area.
- 5. **Specifications** Ensure that the blade specifications, size, and diameter properly match up to sawing operations. Utilizing a blade not matched properly to the task may result in poor performance and/or blade damage.
- 6. Arbor Hole It is essential that the arbor hole diameter properly matches the blade, and that it is free from distortion. Correct blade flanges (collars) must be used. The inside face of the flanges must be clean and free of debris. An out-of-round arbor condition will cause damage to the blade and the saw.
- MAX RPM This RPM reference is the maximum safe operating speed for the blade selected. NEVER exceed the max RPM on the diamond blade. Exceeding the maximum RPM is dangerous and may cause poor performance and may damage the blade.

PAGE 18 — SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08)

SHS81A CUT-OFF SAW — INITIAL START-UP/OPERATION

INITIAL START-UP

CAUTION



DO NOT attempt to operate the saw until the Safety, General Information and Inspection sections of this manual have been read and thoroughly understood. Depending on engine manufacturer, operating steps may vary. See engine manufactures operating manual.

CAUTION



NEVER operate the saw in a confined area or enclosed area structure that does not provide ample *free flow of air*.



ALWAYS wear approved eye and hearing protection before operating the saw.



NEVER place hands or feet inside the belt guard or blade guard while the engine is running. **ALWAYS** shut the engine down before performing any kind of maintenance service on the saw.



Explosive Fuel

Fuel Check

Motor fuels are highly flammable and can be dangerous if mishandled. **DO NOT** smoke while refueling. **DO NOT** attempt to refuel the saw if the engine is *hot!* or *running*.



- 1. Remove the fuel cap located on the side of the saw.
- Visually inspect to see if fuel level is low. If fuel is low, replenish with fuel oil mixture as shown in Figure 13.
- 3. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel.



This saw uses a 2-stroke engine which requires a mixture of *premium* 92 octane unleaded gasoline and smoke free 2-stroke motor oil. See Figure 13.



Figure 13. Fuel to Oil Mixture



For correct fuel to oil mixture, add 2.6 fl. oz (29.6 ml) of 2-stroke motor oil to 1 gallon (3.8 liters) of *premium 92 octane unleaded gasoline*. For a *5 gallon* can of *premium* unleaded gasoline add 13 fl. oz (384 ml) of 2-stroke motor oil.

A bottle (2.6 fl. oz) of smokeless 2-stroke motor oil <u>cannot be</u> <u>purchased separately</u>. Only a case of 36 individual bottles can be purchased. When ordering use Multiquip P/N 00325.

Starting

- 1. Place the engine ON/OFF switch in the **ON** position
- Using your thumb, press down on the throttle lock lever, while squeezing the throttle trigger. This will lock the throttle in the *half-throttle* position.
- 3. Pull the choke lever all the way out to the **CLOSED** position.
- Pull the *decompression button* outward.
- Place the saw on level ground. Make sure the saw blade is free to rotate and will not come into contact with any foreign objects.
- Hold the front handle firmly with the left hand and put your right foot onto the base of the rear handle.



The CLOSED position of the choke lever enriches the fuel mixture for starting a COLD engine. The OPEN position provides the correct fuel mixture for normal operation after starting, and for restarting a warm engine.

SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08) — PAGE 19

SHS81A CUT-OFF SAW — INITIAL START-UP/OPERATION

- Grasp the starter grip and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding to the compression point. Pull the starter grip briskly and smoothly for starting.
- 8. If the engine has started, slowly return the choke lever to the "*OPEN*" position. If the engine has not started repeat steps 1 through 9.
- Squeeze the throttle lever trigger to release it from the halfthrottle position.
- Before the saw is placed into operation, run the engine for several minutes. Check for fuel leaks, and noises that would associate with a loose guards and/or covers.

OPERATION



WARNING

ALWAYS cut with the saw at **FULL THROTTLE.** Attempting to cut with the saw at less than full throttle could cause the blade to bind or stop abruptly in the slab resulting in serious injury to the operator or others in the area.



WARNING

ALWAYS keep clear of *rotating* or *moving* parts while operating this equipment.

- 2. To begin sawing, lower the rotating blade allowing it to cut to the preset depth.
- 3. When blade has reached full cutting depth, slowly walk behind the saw at a rate that will allow the engine to operate without losing optimum RPM.

CAUTION



DO NOT try to cut faster than the blade will allow. Cutting too fast will cause the blade to rise up out of the cut. Improper cutting rate can decrease the life of the engine and blades.



- 4. When the end of the cut has been reached, raise the blade out of the cut.
- 5. If cutting is complete, turn the engine off and wait for the blade to stop rotating.

Shut-down

- 1. Let the engine idle for 3-5 minutes.
- 2. Place the engine ON/OFF switch to the **OFF** position
- 3. Wait for the blade to stop spinning before handling the saw.
- DO NOT touch the cutting blade it is very hot!, allow it to cool, severe burn condition exists.

V-Belt Changing Procedure

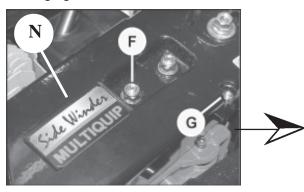
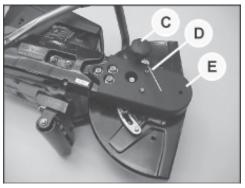


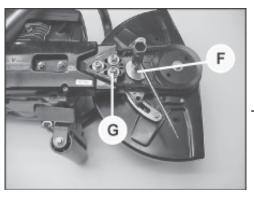
Figure 14. Belt Guard Cover Removal

Remove the 2 hex nuts \rightarrow and hex screw and washer \bigstar to gain access to the V-belt on the clutch side. Remove V-belt cover \bullet .



Remove the 2 hex nuts $_{\bullet}$ and hex screw and guard adjustment knob $_{\bullet}$ to gain access to the V-belt on the spindle side. Remove the Cover Guard .

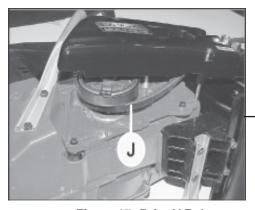
Figure 15. Re-Installing Cover Guard





Using the provided wrench, loosen the three nuts \bigstar to reduce the tension on the V-belt, then turn the **V-belt Tensioning Cam** \bigstar until the V-belt is completely slacked.

Figure 16. V-Belt Tensioning



Remove the V-belt from the *clutch and spindle pulleys*. Install the new V-belt around both pulleys. It is essential that the drive V-belt is properly positioned around both the clutch and spindle pulleys.

Figure 17. Drive V-Belt

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V-Belt Changing Procedure (continued)

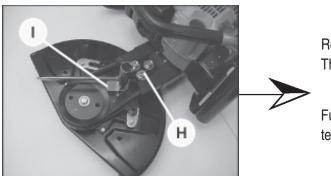


Figure 118. Reversing the Cutting Arm

Re-tension the V-belt by turning the *belt tensioning cam* • The V-belt should remain in tension.

Fully tighten the three nuts * that lock the V-belt into the proper tensioning position.

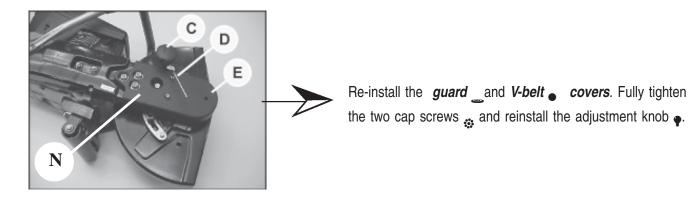
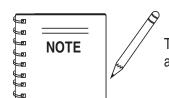


Figure 19. Re-Installing Cover Guard

Reversing the Cutting Arm Procedure



This assembly procedure permits the operator to reorient the *cutting blade* closer to a wall, column and/or object.

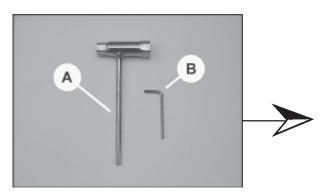


Figure 20. Tool Kit

The Multiquip Side Winder Cut-Off Saw comes with a Tool Kit (Figure 16) that assist you with day to day operations. You will need these tools for the maintenance of your saw.

Item is a versatile screwdriver/wrench that accommodates common bolt/screw and nut head sizes of your saw.

Item $_{\ensuremath{\widehat{\blacksquare}}}$ is the wrench necessary to accommodate various allen screws.

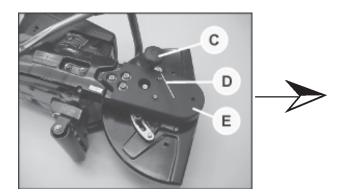


Figure 21. Inside Center Cutting Position

This position displays the *cutting blade on the inside* (center) cutting position. To reverse the blade position continue with the following steps:

Remove the following items from the *Cutting Arm Assembly* to expose the V-belt:

- Guard Adjustment Knob •
- Two Cap Screws
- Cover Guard ____

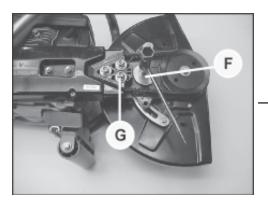
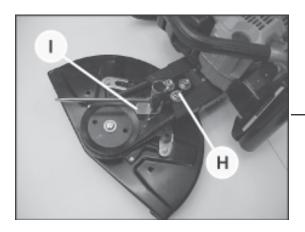


Figure 22 Belt Tensioning Cam

Loosen the **belt tensioning cam** \rightarrow and remove the three nuts \bigstar . This will take tension off the V-belt, and permit you to reverse the **cutting arm**.

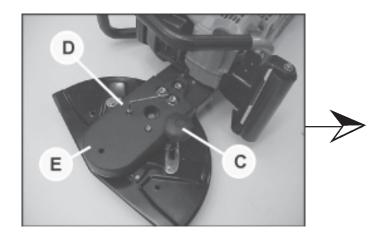
Reversing the Cutting Arm Procedure (continued)



Reverse the *cutting arm* 180 degrees as shown in the Figure 23, and re-tension the V-belt by turning the *belt tensioning cam*. The V-belt should remain in tension.

Fully tighten the three nuts that lock the V-belt into the proper tensioning position.

Figure 23. Reversing the Cutting Arm

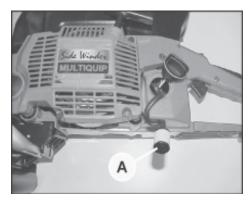


Re-attach the *cover guard* with the 2 cap screws and reconnect the *guard adjustment knob* .

Figure 24. Re-attaching Cover Guard

SHS81A CUT-OFF SAW — MAINTENANCE (AIR/FUEL FILTER)

Air/Fuel Filter Maintenance Procedures

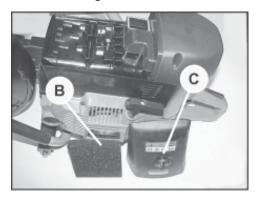




Check the *fuel filter* located inside the fuel tank periodically for dirt/debris build up. It is recommended to change the fuel filter every *50 tanks of fuel*.

This engine is a 2-stroke gasoline engine requiring a specific fuel to oil mixture of 50:1(2%). It is recommended to use an unleaded gasoline rated at 92 octane (**premium**) with an oil for use on 2-stroke engines only. See Figure 13.

Figure 25. Fuel Filter

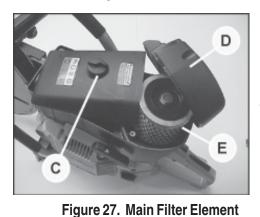




It is highly recommended to keep a supply of spare *pre-filters* on hand. Maintaining the *foam pre-filter*, and regular exchanges will prolong the life of the *main filter element*.

Every 8 hours of operation, remove the **pre-air cleaner cover** and wash the foam **pre-cleaner** in warm fresh soapy water. Let dry thoroughly. When dry, completely coat the filter with only an approved **foam filter oil**.

Figure 26. Pre-Filter





Every 8 hours of operation, remove the **covers** and and inspect the **main filter element**. Clean the **main filter element** by vigorously shaking out and dusting off with a soft brush. **DO NOT** air blast clean this element with compressed gas.

The main filter element should be replaced after *three pre filter changes*

F



Every 8 hours of operation, inspect the *supplementary filter element* \rightarrow . Clean the *supplementary filter element* \rightarrow by vigorously shaking out and dusting off with a soft brush. **DO NOT** air blast clean this element with compressed gas.

The **supplementary filter element** should be replaced after **three pre filter changes**.

Figure 28. Supplementary Filter

SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08) — PAGE 25

SHS81A CUT-OFF SAW — TROUBLESHOOTING (BLADE)

	TABLE 3. BLADE TROUB	BLESHOOTING
SYMPTOM	POSSIBLE PROBLEM	SOLUTION
	Blade too hard for the material being cut?	Consult Dealer or Multiquip for correct blade. Try cutting very soft material (sandstone, silica brick, cinder block) to "Redress" the blade.
	Engine torque diminished because of loose V-belt?	Tighten and/or replace V-Belts.
Blade slows or stops cutting.	Insufficient engine power?	Check throttle setting. Check Engine horsepower.
	Improper direction of rotation?	Check that the blade is properly oriented and rotational arrow points in a "Down-Cutting" direction.
	Blade is slipping on the blade shaft?	Check that the blade & flange pin are properly installed on the blade shaft.
	Blade being used on misaligned saw?	Check blade shaft bearings and alignment integrity.
	Blade is excessively hard for the material being cut?	Check specification of the blade with the material being cut. Consult Dealer or Multiquip for information.
Blade does not cut straight and/or true.	Blade being used at improper RPM?	Ensure blade surface feet per minute speed (SFPM) is approximately 6,000.
	Blade improperly mounted on arbor shoulders and flanges?	Ensure blade is properly affixed on the blade shaft.
	Excessive force applied to blade while cutting?	DO NOT force the blade in the cut. Apply a slow and steady pace when sawing.
	Blades too hard for the material being cut?	Consult Dealer or Multiquip for correct blade. Try cutting very soft material (sandstone, silica brick, cinder block) to "Redress" the blade.
	Blade improperly mounted on arbor shoulders and flanges?	Ensure blade is properly affixed on the blade shaft.
Blade discoloring, crackling and/or wearing excessively.	Blade not receiving enough cooling water or air?	Ensure proper flow & volume of water is provided for wet cutting blades. Ensure sufficient cooling air is circulated about a dry cutting blade.
	Arbor hole out of round?	Ensure blade is properly affixed on the blade shaft.
	Incorrect blade chosen for material being cut?	Check specification of the blade with the material being cut. Consult Dealer or Multiquip for information.
	Excessive force applied to blade while cutting?	DO NOT force the blade in the cut. Apply a slow and steady pace when sawing.

SHS81A CUT-OFF SAW — TROUBLESHOOTING (ENGINE)

TABLE 4. TROUBLESHOOTING (ENGINE)		
SYMPTOM	POSSIBLE CAUSE	SOLUTION
	Spark plug bridging?	Check gap, insulation or replace spark plug.
	Carbon deposit on spark plug?	Clean or replace spark plug.
Difficult to start, "fuel is available, but no SPARK at spark plug".	Short circuit due to deficient spark plug insulation?	Check spark plug insulation, replace if worn.
	Improper spark plug gap?	Set to proper gap.
	Ignition coil defective?	Replace ignition coil.
	ON/OFF switch is shorted?	Check switch wiring, replace switch.
Difficult to start, "fuel is available, and	Improper spark gap, points dirty?	Set correct spark gap and clean points.
SPARK is present at the spark plug".	Condenser insulation worn or short circuiting?	Replace condenser.
	Spark plug wire broken or short circuiting?	Replace defective spark plug wiring.
	Wrong fuel type?	Flush fuel system, and replace with correct type of fuel.
Difficult to start, "fuel is available, spark	Water or dust in fuel system?	Flush fuel system.
is present and compression is normal".	Air cleaner dirty?	Clean or replace air cleaner.
	Choke Open?	Close Choke.
	Suction/exhaust valve stuck or protruded?	Re-seat valves.
Difficult to ctart "fuel is available spark	Piston ring and/or cylinder worn?	Replace piston rings and/or piston.
Difficult to start, "fuel is available, spark is present and compression is low".	Cylinder head and/or spark plug not tightened properly?	Torque cylinder head bolts and spark plug.
	Head gasket and/or spark plug gasket damaged?	Replace head and/or spark plug gaskets.
No fuel present at the carburetor.	Fuel not available in fuel tank (tank empy)?	Fill with correct type of fuel.
	Fuel filter clogged?	Replace fuel filter.
	Fuel tank cap breather hole clogged?	Clean or replace fuel tank cap.
	Air in fuel line?	Bleed fuel line.

SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08) — PAGE 27

SHS81A CUT-OFF SAW — TROUBLESHOOTING (ENGINE)

TABLE 4. TROUBLESHOOTING (ENGINE, CONTINUED)			
SYMPTOM	POSSIBLE CAUSE	SOLUTION	
	Air cleaner not clean?	Clean or replace air cleaner.	
	Improper fuel level in corpurator?	Check float adjustment.	
"Weak in power" compression is proper and does not misfire.	Improper fuel level in carburetor?	Rebuild carburetor.	
	Defective spark plug?	Clean or replace spark plug.	
	Improper spark plug gap?	Set to proper gap.	
"Weak in power" compression is proper but misfires.	Water in fuel system?	Flush fuel system and replace with correct type fuel.	
	Ignition coil defective?	Replace ignition coil.	
	Dirty spark plug?	Clean or replace spark plug.	
Engine overheats.	Wrong fuel type?	Flush fuel system, and replace with correct type of fuel.	
	Spark plug heat value improper?	Replace with correct type of spark plug.	
	Cooling fins dirty?	Clean cooling fins.	
	Governor adjusted correctly?	Adjust governor.	
Rotational speed fluctuates.	Governor spring defective or missing?	Replace governor spring.	
	Fuel flow restricted?	Check entire fuel system for leaks or clogs.	
Recoil starter malfunction.	Recoil mechanism clogged with dust and dirt?	Clean recoil assembly with soap and water.	
	Spiral spring loose?	Replace spiral spring.	

For Side Winder HS Series Cut-Off Saws SHS81A

DRY FILTER KITS

HS81FK1A

[Includes 1 ea.] HS52010451R- Foam Filter HS018600125R- Paper Filter HS018600056AR - Inner Filter

HS81FK5A

[Includes 5 ea.] HS52010451R - Foam Filter HS018600125R - Paper Filter HS018600056AR - Inner Filter

HS81FK10A

[Includes 10 ea.] HS52010451R - Foam Filter HS018600125R - Paper Filter HS018600056AR - Inner Filter

WET FILTER



* Replaces *DRY* Air Filter Canister When Using Water & Standard Water Kit (provided)



HS099900778A [Includes 1 ea.]

SHS81A CUT-OFF SAW — EXPLANATION OF PARTS SECTION REMARKS

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

The contents and part numbers listed in the parts section are subject to change *without notice*. Multiquip does not quarantee the availibility of the parts listed.

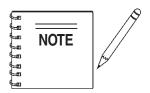
Sample Parts List:

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
1	12345	BOLT	1	INCLUDES ITEMS W/*
2*		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2*	12347	WASHER, 3/8 IN.	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols - All items with same unique symbol (*, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the "Remarks" column.

Duplicate Item Numbers - Duplicate numbers indicate multiple part numbers are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.



When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used - Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the "Remarks" Column.

QTY. Column

Numbers Used - Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the "Remarks" Column.

REMARKS Column

Some of the most common notes found in the "Remarks" Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit - All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

"INCLUDES ITEMS W/(unique symbol)"

Serial Number Break - Used to list an effective serial number range where a particular part is used.

Indicated by:

"S/N XXXXX AND BELOW"

"S/N XXXX AND ABOVE"

"S/N XXXX TO S/N XXX"

Specific Model Number Use - Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

"XXXXX ONLY"

"NOT USED ON XXXX"

"Make/Obtain Locally" - Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

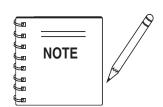
"Not Sold Separately" - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

SHS81A CUT-OFF SAW — SUGGESTED SPARE PARTS

SUGGESTED SPARE PARTS

SHS81A SIDEWINDER CUT-OFF SAW 1 to 3 Units

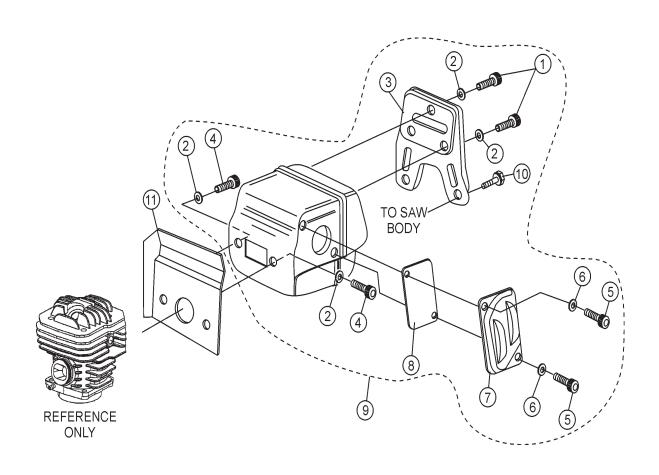
Qty.	P/N	Description
1	HS52012047A	Description . STARTER ASSEMBLY
	HS098000079R	
1	HS50140060	. HANDLE, ROPE
		. SPRING & CASE, STARTER
6	HS3055118	. SPARK PLUG
1	HS097000132	. CLUTCH ASSEMBLY
1	HS52022005	. FUEL CAP, W/O-RING
3	HS50010218	. FILTER, FÚEL
1	HS52010092	. THROTTLE TRIGGER LEVER
1	HS52010077	. THROTTLE LOCK LEVER
1	HS52010078	. CHOKE LEVER
		. COVER, BELT GUARD
		. NUT, BELT COVER
	HS018100180	
2	HS018600235	. FLANGE, ARBOR
2	HS018600236A	. FLANGE, ARBOR
2	HS52010177	. SCREW AND WASHER, ARBOR
2	HS52010062A	. KNOB, ADJ. GUIDE
		. WASHER, ADJ. GUIDE
2	HS52010045	. SPACER, ADJ. GUIDE
2	HS52010013	. LOCK, GUIDE BLADE GUARD
1	HS52012024B	. FLANGE, PRE-FILTER CAP
		. SUPPORT FILTER
2	HS3802002A	. SCREW, FILTER SUPPORT
1	HS330000010	. O-RING, FLANGE PRE-FILTER
1	HS018600090A	. GASKET, AIR FILTER LOWER
	HS018600125R	
6	HS018600056AR .	. FILTER, AIR INNER
18	HS52010451R	. PRE-FILTER, FOAM
	HS4191240	
	HS099900778A	
		. BREATHER ASSEMBLY
1	00325	. CASE, OIL 2-STROKE NON-SMOKE - 36 BOTTLES



The contents of this parts catalog are subject to change without notice.

SHS81A CUT-OFF SAW — MUFFLER ASSY.

MUFFLER ASSY.



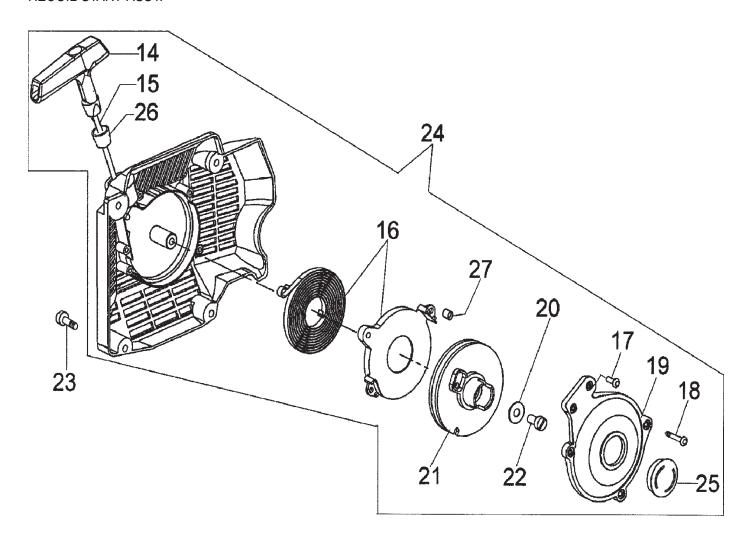
SHS81A CUT-OFF SAW — MUFFLER ASSY.

MUFFLER ASSY.

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
1*	HS3801052	SCREW	3	
2*	HS3033074	WASHER	5	
3*	HS097000342A	COVER, MUFFLER	1	
4 *	HS3801045	SCREW	2	
5*	HS005100913B	SCREW	2	
6*	HS3833073	WASHER	2	
7 *	HS098000133	DEFLECTOR, MUFFLER	1	
8*	HS098000132	SCREEN	1	
9	HS52010441	MUFFLER ASSEMBLY	1	INCLUDES ITEMS W/*
10*	HS097000092A	SCREW	2	
11	HS097000094A	GASKET, MUFFLER	1	

SHS81A CUT-OFF SAW — RECOIL START ASSY.

RECOIL START ASSY.



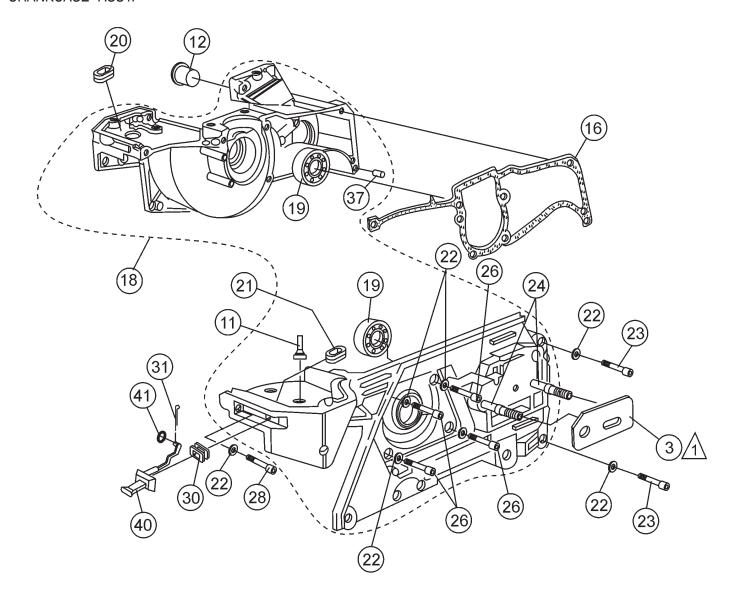
SHS81A CUT-OFF SAW — RECOIL START ASSY.

RECOIL START ASSY.

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
14*	HS50140060	HANDLE, STARTER ROPE	1	
15*	HS098000079R	ROPE, STARTER	1	
16*	HS098000060A	SPRING AND CASE, STARTER	1	
17*	HS3960017	SCREW	4	
18*	HS3960116	SCREW	1	
19*	HS50140055	COVER	1	
20*	HS3918006	WASHER	1	
21*	HS52010439B	PULLEY, STARTER	1	
22*	HS3908036	SCREW	1	
23	HS097000092A	SCREW	4	
24	HS52012047A	STARTER ASSEMBLY	1	. INCLUDES ITEMS W/*
25*	HS52010410	CAP	1	
26*	HS50140056	CAP	1	
27*	HS52010404	SPACER	1	

SHS81A CUT-OFF SAW — CRANKCASE ASSY.

CRANKCASE ASSY.



NOTES:



ITEM 3, ARM SUPPORT PLATE
IS INCLUDED WITH V-BELT COVER
P/N HS52010430

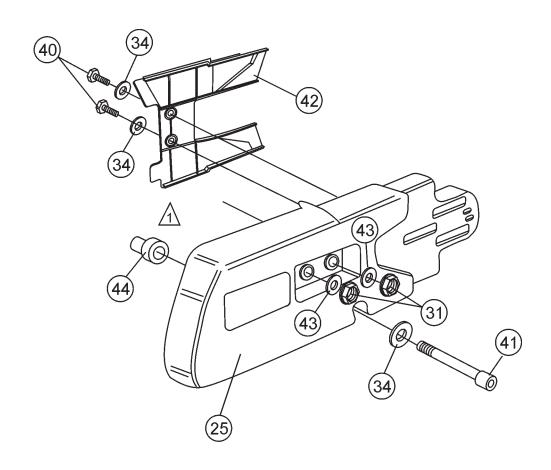
SHS81A CUT-OFF SAW — CRANKCASE ASSY.

CRANKCASE ASSY.

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
3	HS52010312	PLATE	1	
11	HS09990268	RUBBER CLAMP	1	
12	HS52020040	CAP	1	
16	HS097000009A	GASKET, CRANKCASE	1	
18	HS52012018	CRANKCASE W/ BEARING ASSY	1	INCLUDES ITEMS W/*
19*	HS3034012	BEARING, CRANKCASE	2	
20	HS099900110	GROMMET	1	
21	HS52010117	GROMMET	1	
22	HS3833073	WASHER	7	
23	HS006100303	SCREW	2	
24	HS097000080BR	BAR STUD, CRANKCASE	2	
26	HS3801015	SCREW	4	
28	HS005100987	SCREW	1	
30	HS097000057	GROMMET	1	
31	HS006000102	SPLIT PIN	1	
37*	HS3023008	PIN	2	
40	HS52010078	CHOKE LEVER	1	
41	HS3049030	O-RING	1	

SHS81A CUT-OFF SAW — V-BELT COVER (CLUTCH SIDE) ASSY.

V-BELT COVER (CLUTCH SIDE) ASSY



NOTES:



ARM SUPPORT PLATE P/N HS52010312 IS INCLUDED WITH V-BELT COVER, ITEM 25. SEE CRANKCASE ASSY. FOR SUPPORT PLATE ORIENTATION.

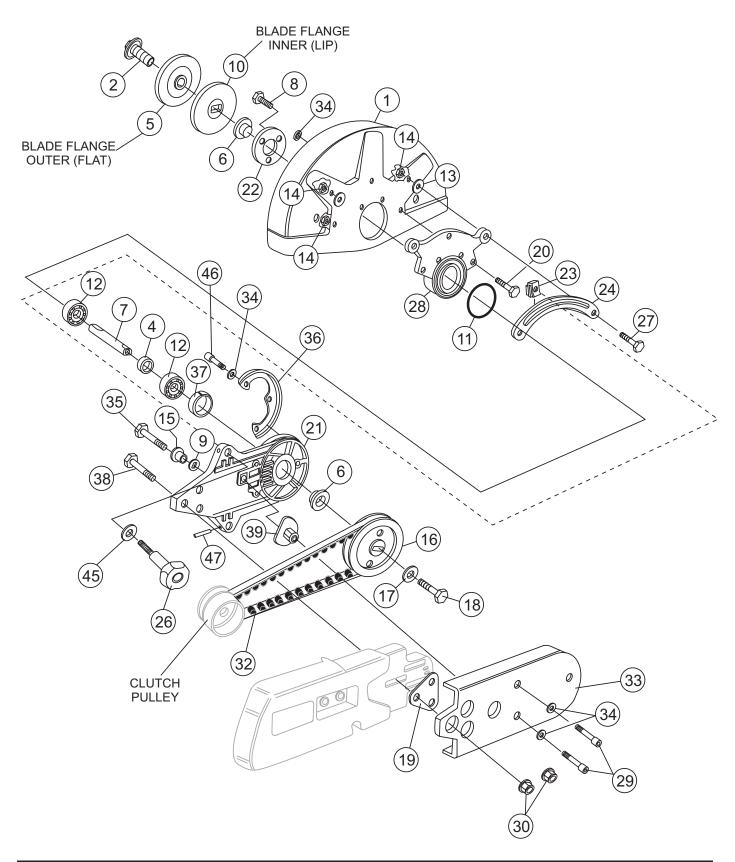
SHS81A CUT-OFF SAW — V-BELT COVER (CLUTCH SIDE) ASSY.

V-BELT COVER (CLUTCH SIDE) ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
25	HS52010430	V-BELT COVER, (CLUTCH SIDE)	1	
31	HS50010148R	NUT	2	
34	HS3833073	WASHER	3	
40	HS3806021A	SCREW	2	
41	HS3801037	SCREW	1	
42	HS52010023	GUARD, BELT INNER	1	
43	HS3916008R	WASHER	2	
44	HS006000300	BUSHING	1	

SHS81A CUT-OFF SAW — V-BELT COVER (PULLEY) /BLADE GUARD

V-BELT COVER (PULLEY-SIDE)/BLADE GUARD ASSY.



PAGE 40 — SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08)

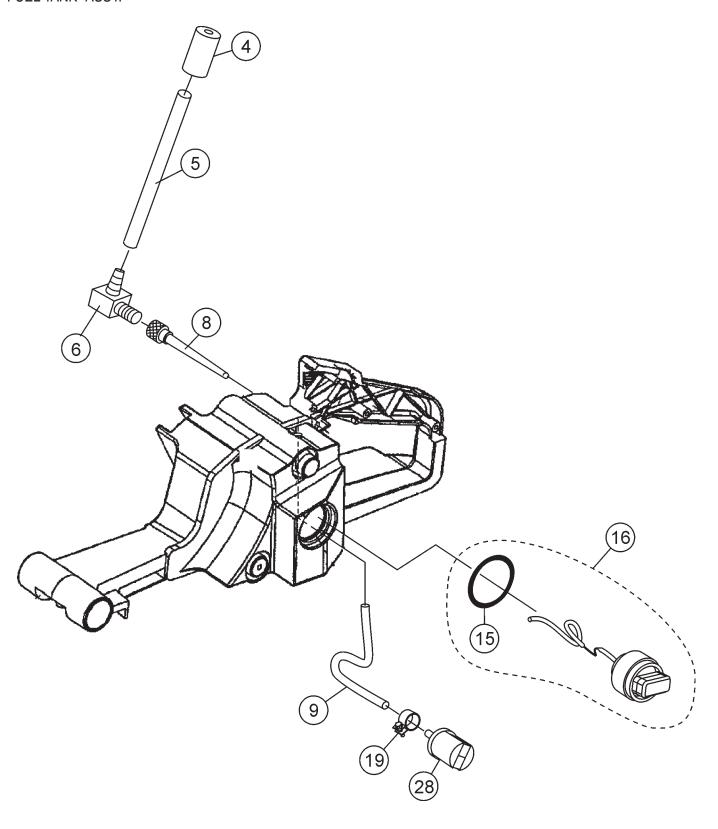
SHS81A CUT-OFF SAW — V-BELT COVER (PULLEY) /BLADE GUARD

V-BELT COVER (PULLEY-SIDE)/BLADE GUARD ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	HS52010026	BLADE COVER 14-INCH	1	
2	HS52010177	SCREW AND WASHER	1	
4	HS52010045	SPACER	1	
5	HS018600235	FLANGE, ARBOR (OUTER)	1	
6	HS52010044	SPACER	2	
7	HS018600019	SHAFT	1	
8	HS3806022	SCREW	3	
9	HS005000343	WASHER	1	
10	HS018600236A	FLANGE, ARBOR (INNER)	1	
11	HS018100029	O-RING, BLADE GUARD SUPPORT	1	
12	HS3035019	BEARING	2	
13	HS093000020	SPACER	1	
14	HS094000251	NUT	5	
15	HS52010039	SPACER	1	
16	HS01860004A	PULLEY, BELT	1	
17	HS3918013	WASHER	1	
18	HS3806065	SCREW	1	
19	HS52010305	PLATE	17	
20	HS3806021A	SCREW	5	
21	HS52012114	ARM	1	
22	HS52010043	FLANGE	1	
23	HS52010013	LOCK, GUIDE BLADE GUARD	1	
24	HS52010396	GUIDE, BLADE GUARD	1	
26	HS52010062A	KNOB, ADJUSTMENT GUIDE	1	
27	HS3802005A	SCREW	2	
28	HS52010025A	SUPPORT BLADE GUARD	1	
29	HS3801016	SCREW	2	
30	HS3914010	NUT	3	
32	HS018100180	V-BELT	1	
33	HS52010022A	COVER, V-BELT (PULLEY SIDE)	1	
34	HS3833073	WASHER	6	
35	HS3806037A	SCREW	1	
36	HS52010211	GUARD	1	
37	HS52010046	BUSHING	1	
38	HS52010401	SCREW	1	
39	HS52010036	BELT ADJUSTER	1	
45	HS3833080	WASHER	1	
46	HS3906019	SCREW	1	
47	HS52010428	PLASTIC PIN	2	

SHS81A CUT-OFF SAW — FUEL TANK ASSY.

FUEL TANK ASSY.



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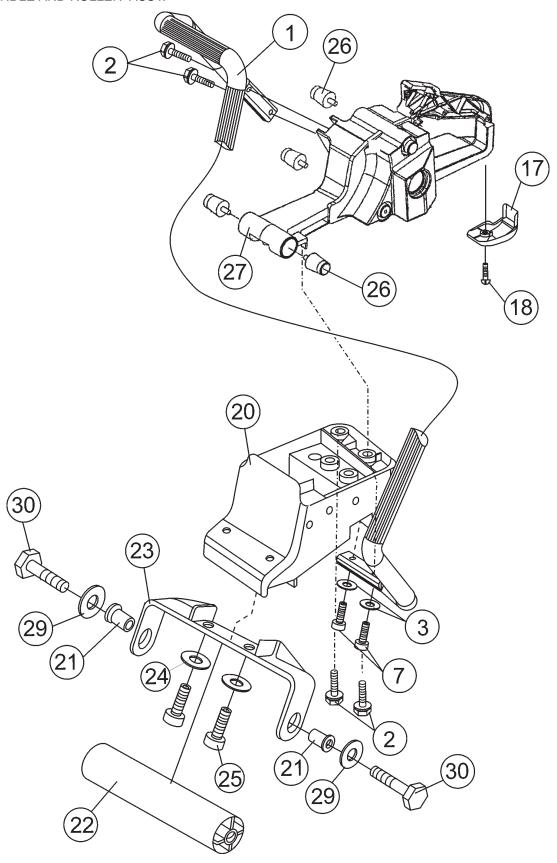
SHS81A CUT-OFF SAW — FUEL TANK ASSY.

FUEL TANK ASSY.

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
4	HS52010082	BREATHER	1	
5	HS093000448	TUBE	1	
6	HS018500066	FITTING	1	
8	HS018500096	VALVE BODY	1	
9	HS50010093	TUBE	1	
15*	HS099900090	0-RING	1	
16	HS52022005	CAP, FUEL	1	INCLUDES ITEM W/ *
19	HS4098377	CLIP	1	
28	HS50010218	FILTER, FUEL	1	

SHS81A CUT-OFF SAW — LIFTING HANDLE AND ROLLER ASSY.

LIFTING HANDLE AND ROLLER ASSY.



PAGE 44 — SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08)

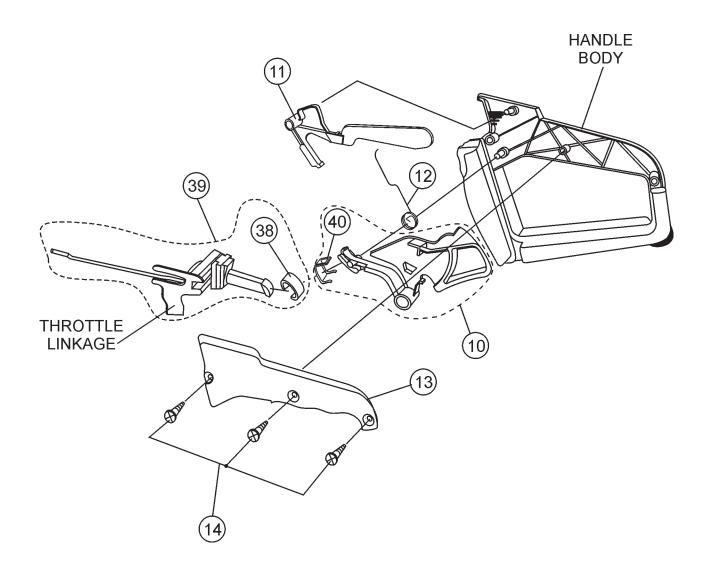
SHS81A CUT-OFF SAW — LIFTING HANDLE AND ROLLER ASSY.

LIFTING HANDLE AND ROLLER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	HS52010047	HANDLE	1	
2	HS097000061A	SCREW	4	
3	HS3072015	WASHER	2	
7	HS3801020	SCREW	2	
17	HS52020026	GUARD, FUEL TANK	1	
18	HS3960087	SCREW	1	
20	HS52010214	MAIN ROLLER SUPPORT UPPER	1	
21	HS3960045	SPACER, ROLLER SUPPORT LOWER	2	
22	HS018100171A	ROLLER	1	
23	HS52010098	SUPPORT, ROLLER LOWER	1	
24	HS3072015	WASHER	2	
25	HS3801024	SCREW	2	
26	HS52010066R	SHOCK ABSORBER	4	
27	HS097000485	FUEL TANK ASSY.	1	
29	HS3833076	WASHER	4	
30	HS3806035	SCREW	2	

SHS81A CUT-OFF SAW —THROTTLE LINKAGE ASSY.

THROTTLE ASSY.



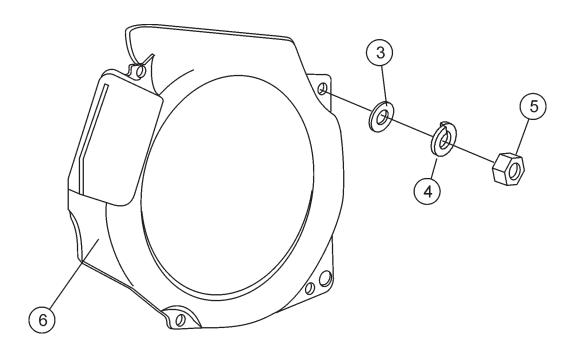
SHS81A CUT-OFF SAW —THROTTLE LINKAGE ASSY.

THROTTLE ASSY

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
10	HS52010092	THROTTLE TRIGGER LEVER	1	. INCLUDES ITEM W/#
11	HS52010077	THROTTLE LOCK LEVER	1	
12	HS097000028	SPRING	1	
13	HS097000024	COVER, HANDLE/TANK	1	
14	HS3960040	SCREW	3	
38%		CAP, THROTTLE LINKAGE	1	. NOT SOLD SEPARATELY
39	HS52012044	THROTTLE LINKAGE	1	. INCLUDES ITEM W/ %
40#		PLATE	1	. NOT SOLD SEPARATELY

SHS81A CUT-OFF SAW — FLYWHEEL COVER ASSY.

FLYWHEEL COVER ASSY.



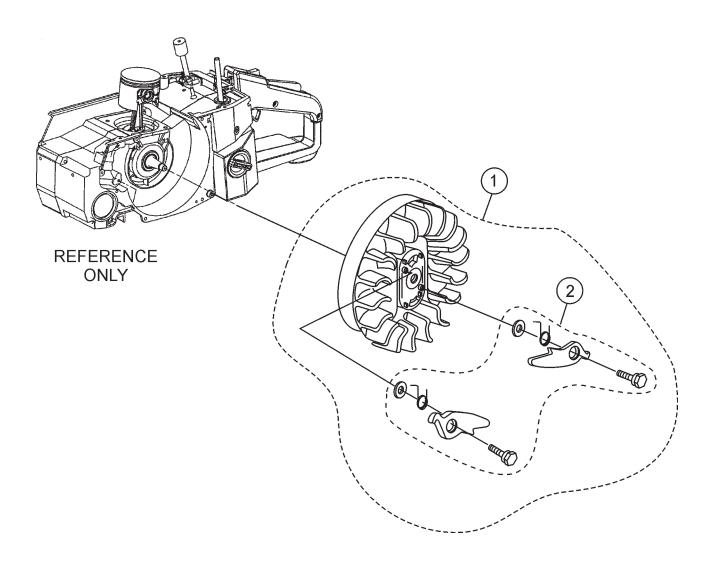
SHS81A CUT-OFF SAW — FLYWHEEL COVER ASSY.

FLYWHEEL COVER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
3	HS005000361	WASHER, FLAT	1	
4	HS3833080	WASHER, LOCK	1	
5	HS004000142	NUT	1	
6	HS097000019C	FLANGE, STARTER	1	

SHS81A CUT-OFF SAW — FLYWHEEL ASSY.

FLYWHEEL ASSY.



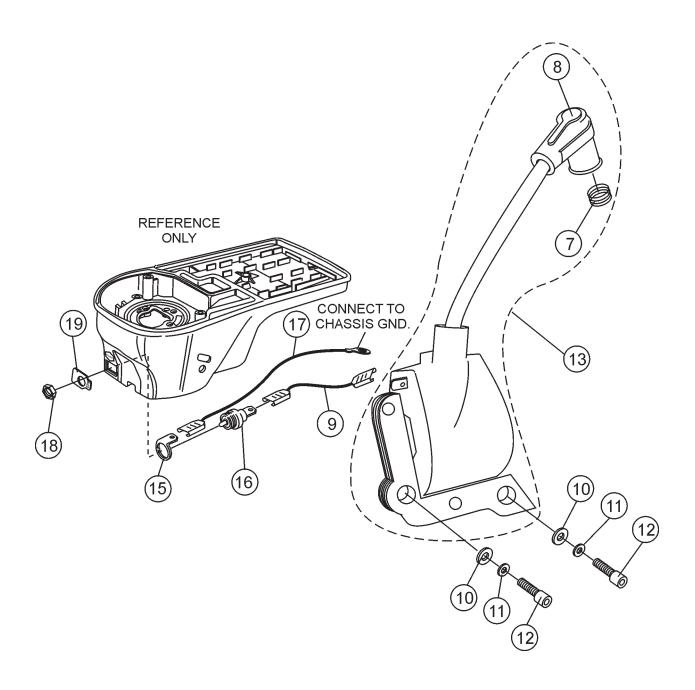
SHS81A CUT-OFF SAW — FLYWHEEL ASSY.

FLYWHEEL ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
1	HS52010136R	FLYWHEEL	1	. INCLUDES ITEM W/*
2*	HS52012027	PAWL SET	1	

SHS81A CUT-OFF SAW — IGNITION COIL ASSY.

IGNITION COIL ASSY.

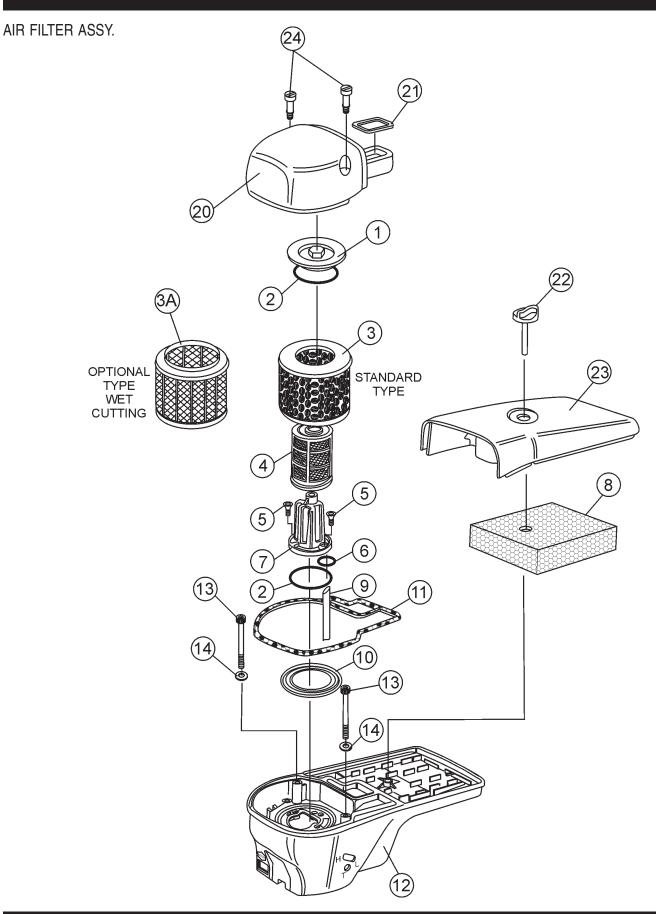


SHS81A CUT-OFF SAW — IGNITION COIL ASSY.

IGNITION COIL ASSY.

<u>NO.</u>	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
7 *	HS094600169	SPRING SPARK PLUG	1	
8*	HS094600097A	CAP, SPARK PLUG	1	
9	HS052010362	CABLE WIRE	1	
10	HS3916004	WASHER	2	
11	HS006000315	WASHER	2	
12	HS094000227	SCREW	2	
13	HS52010320R	COIL, IGNITION ASSY	1	INCLUDES ITEMS W/*
15	HS52010132	CONNECTING LINK	1	
16	HS094500497	SWITCH, ON-OFF	1	
17	HS097000121A	CABLE WIRE, ON-OFF SWITCH	1	
18	HS099900397	NUT	1	
19	HS004000438	PLATE, ON-OFF SWITCH	1	

SHS81A CUT-OFF SAW — AIR FILTER ASSY.



PAGE 54 — SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08)

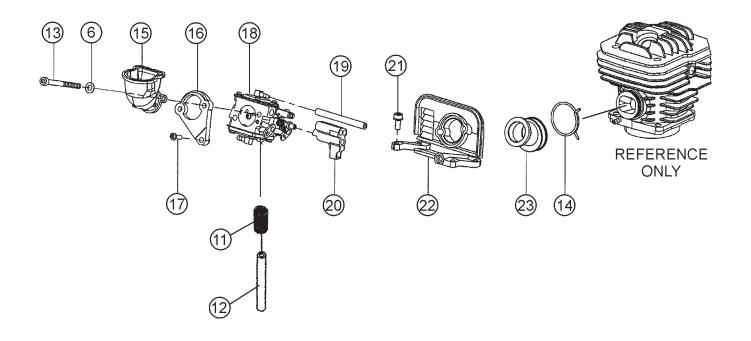
SHS81A CUT-OFF SAW — AIR FILTER ASSY.

AIR FILTER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	HS52012024B	FLANGE, PRE- FILTER, CAP	1	
2	HS33000010	O- RING, FLANGE PRE- FILTER	2	
3	HS018600125	FILTER, AIR (STANDARD)	1	
3A	HS099900778A	FILTER, AIR (WET CUTTING)	1	OPTIONAL
4	HS018600056AR	FILTER, AIR INNER	1	
5	HS3802002A	SCREW, FILTER SUPPORT	3	
6	HS3049007	O-RING	1	
7	HS52010014B	SUPPORT, FILTER	1	
8	HS52010451R	PRE- FILTER, FOAM	1	
9	HS015000100	TUBE	1	
10	HS018600090A	GASKET, AIR FILTER LOWER	1	
11	HS52010059	GASKET, AIR FILTER BASE	1	
12	HS52010016	COVER, AIR FILTER LOWER	1	
13	HS072700182	SCREW, AIR CLEANER MTG.	3	
14	HS3833073	WASHER, AIR CLEANER MTG.	3	
20	HS52012004A	COVER, AIR FILTER, UPPER	1	
21	HS52010060	GASKET, AIR FILTER COVER	1	
22	HS52010041	KNOB, AIR FILTER COVER	1	
23	HS52010018A	COVER, AIR FILTER, LONG	1	
24	HS093000468A	SCREW, AIR FILTER COVER	2	

SHS81A CUT-OFF SAW — CARBURETOR MOUNTING ASSY.

CARBURETOR MOUNTINGASSY.



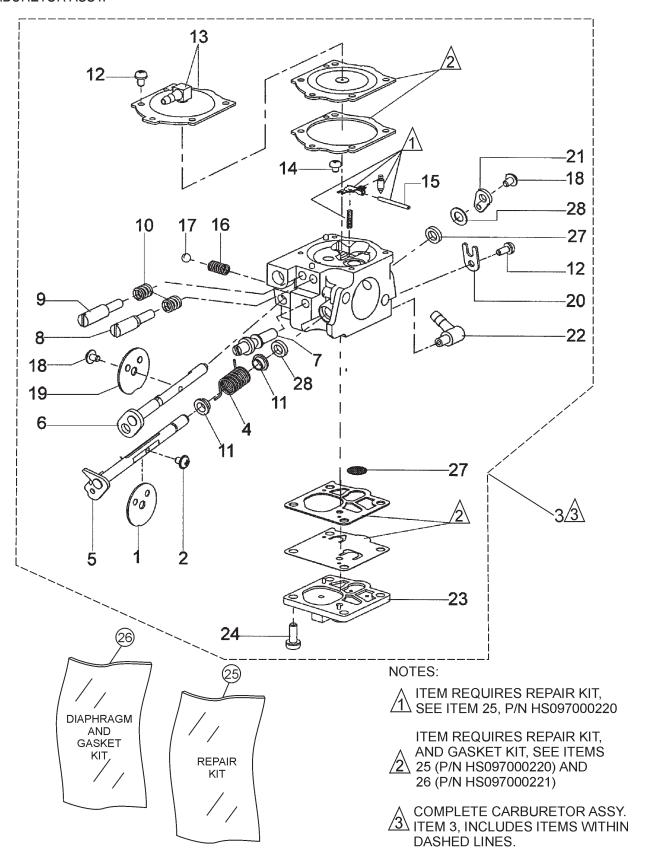
SHS81A CUT-OFF SAW — CARBURETOR MOUNTING ASSY.

CARBURETOR MOUNTING ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
6	HS3833073	WASHER	2	
11	52010120	SPRING	1	
12	094600126	TUBE	1	
13	HS61052009B	SCREW	1	
14	HS097000059A	SPRING, MANIFOLD	1	
15	HS52010008A	MANIFOLD, OUTER	1	
16	HS097000333	FLANGE	1	
17	HS3960057	SCREW	1	
18	HS2318920B	CARBURETOR ASSEMBLY	1	
19	HS015000100	FUEL LINE, CARBURETOR	1	
20	HS52010189	SCREW	1	
21	HS097000092A	SCREW	1	
22	HS098000057	SUPPORT, CARBURETOR	1	
23	HS098000010	MANIFOLD, INNER	1	

SHS81A CUT-OFF SAW — CARBURETOR ASSY.

CARBURETOR ASSY.



PAGE 58 — SHS81A CUT-OFF SAW — OPERATION AND PARTS MANUAL — REV. #0 (01/30/08)

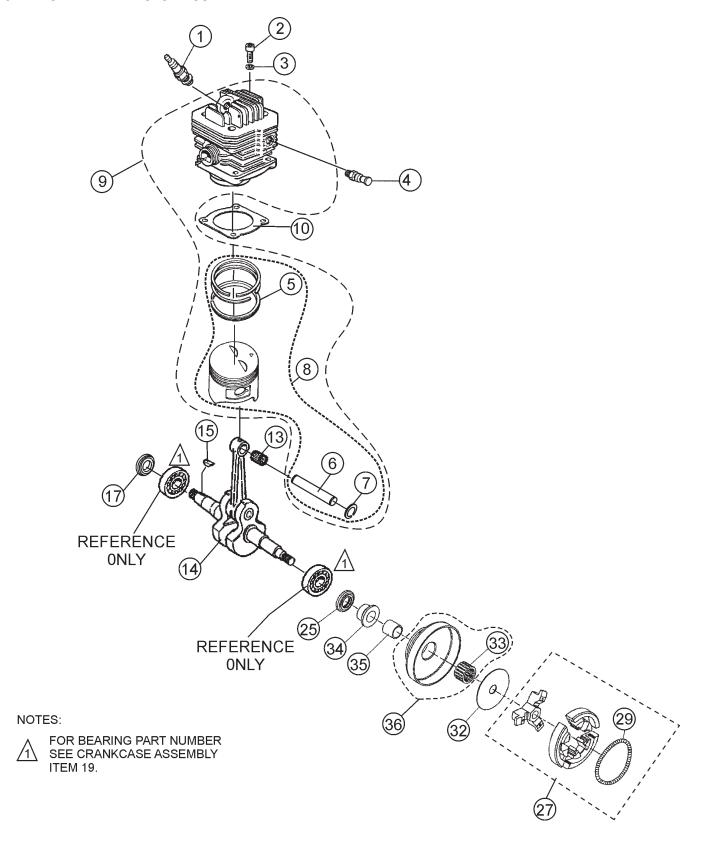
SHS81A CUT-OFF SAW — CARBURETOR ASSY.

CARBURETOR ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1*	HS52010019	THROTTLE VALVE	1	
2*	HS380000338	SCREW	1	
3	HS2318920B	CARBURETOR ASSY	1	. INCLUDES ITEMS W/*
4 *	HS097000161	SPRING	1	
5*	HS097000154	THROTTLE SHAFT	1	
6*	HS097000155	STARTER SHAFT	1	
7 *	HS097000162	SCREW, ADJUST	1	
8*	HS2318761	SCREW "L" CARBURETOR	1	
9*	HS2318762	SCREW "H" CARBURETOR	1	
10*	HS097000223	SPRING	2	
11*	HS097000224	BUSHING	2	
12*	HS035000162	SCREW	5	
13*	HS52010007	COVER	1	
14*	HS003300202	SCREW	1	
15*	HS035000169	PIN	1	
16*	HS035000164	SPRING	1	
17*	HS006000325	BALL, CARBURETOR	1	
18*	HS003300209	SCREW	1	
19*	HS035000151	STARTER VALVE	1	
20*	HS035000149	PLATE	1	
21*	HS097000160	LEVER	1	
22*	HS003300036	ELBOW CONNECT	1	
23*	HS097000157	COVER	1	
24*	HS035000161	SCREW	1	
25*	HS097000220	KIT, REPAIR CARBURETOR	1	
26*	HS097000221	KIT, GASKET CARBURETOR	1	
27	HS380000272	SEAL RING	2	
28	HS015400153	WASHER	1	

SHS81A CUT-OFF SAW — CRANKSHAFT / PISTON ASSY.

CRANKSHAFT AND PISTON ASSY.



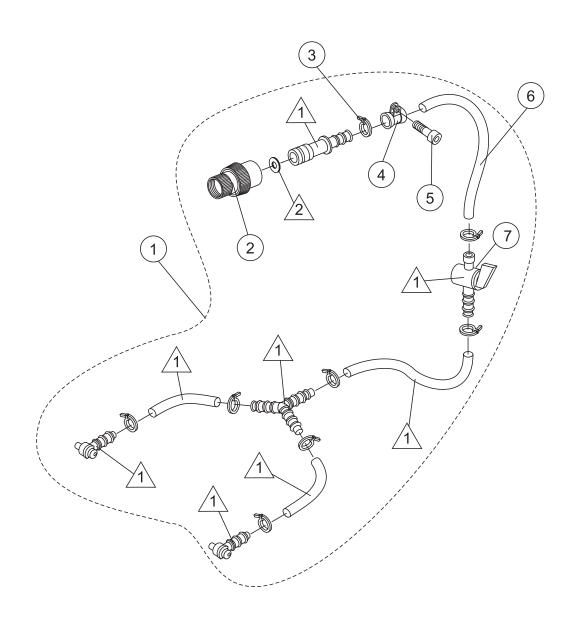
SHS81A CUT-OFF SAW — CRANKSHAFT AND PISTON ASSY.

CRANKSHAFT AND PISTON ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	HS3055118	SPARK PLUG	1	
2	HS005100906A	SCREW	4	
3	HS3833076	WASHER	4	
4	HS52010067	DECOMPRESSOR	1	
5 * #	HS098000004	PISTON RINGS	1	
6*#	HS094500007	PISTON PIN	1	
7 * #	HS007201198	RING, PISTON PIN	2	
8*	HS098000033B	PISTON ASSEMBLY W/RINGS	1	INCLUDES ITEMS W /#
9	HS50102012B	CYLINDER ASSEMBLY W/PISTON	1	INCLUDES ITEMS W /*
10	HS097000010B	GASKET, CYLINDER	1	
13	HS006000010	BEARING, UPPER CRANKSHAFT	1	
14	HS098000001	CRANKSHAFT	1	
15	HS094500028R	KEY, CRANKSHAFT	1	
17	HS094500004	SEAL RING	1	
25	HS099900014	SEAL RING, CRANKSHAFT	1	
27	HS097000132	CLUTCH ASSEMBLY	1	INCLUDES ITEMS W /+
29+	HS004900137B	SPRING, CLUTCH	1	
32	HS097000097	WASHER	1	
33\$	HS52010030	BEARING	1	
34	HS52010035	SPACER, CLUTCH DRUM	1	
35	HS52010034	BUSHING, CLUTCH DRUM	1	
36	HS52010029R	CLUTCH DRUM	1	INCLUDES ITEMS W /\$

SHS81A CUT-OFF SAW — WATER KIT ASSY.

WATER KIT ASSY.



NOTES:



INCLUDED WITH SOCKET HEAD CAP SCREW, ITEM 5

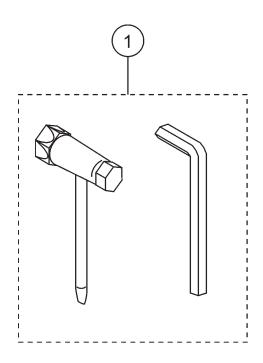
SHS81A CUT-OFF SAW — WATER KIT ASSY.

WATER KIT ASSY.

NO.	PART NO.	PART NAME	QTY.	<u>REMARKS</u>
1	HS52012062	WATER KIT ASSY	1	. INCLUDES ITEMS W /*
2*	HS52010121	FITTING, QUICK DISCONNECT	1	
3*		PLASTIC TIE WRAPS	8	. NOT SOLD SEPARATELY
4*		HOSE CLAMP	1	. NOT SOLD SEPARATELY
5*		SCREW, SOCKET HEAD CAP W/ WASHER	1	. NOT SOLD SEPARATELY
6*		HOSE, WATER	1	. NOT SOLD SEPARATELY
7 *	HS52010207	VALVE, SHUT-OFF	1	



TOOLS





CANNOT BE PURCHASED SEPARATELY, MUST ORDER A CASE OF 36.

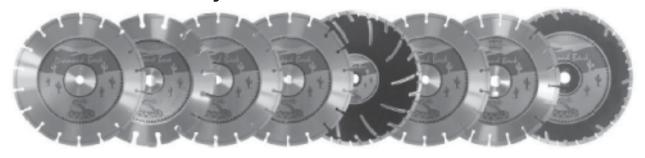
SHS81A CUT-OFF SAW — TOOLS

TOOLS

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	HS4191240	TOOL KIT	1	
2	00325	SMOKELESS 2-STROKE OIL	1	CAN ONLY BE PURCHASED AS A CASE (QTY 36)

SHS81A CUT-OFF SAW — RECOMMENDED DIAMOND BLADES

Recommended Diamond Blades For your Side Winder Saw



12" x .125" x 1" - 20mm Arbor

		XIIIZO XI	201111117118	////
Material to Cut	Economy	Standard	Premium	Supreme
Cured				
Concrete	12GPS	12SBL	12PDHS1	12PDHS2
Asphalt				
Green Concrete	12GPS	12SBLA	12PDHS1A	12PDHS2A
Hard Brick				
& Masonry	12GPS	12SBL	12PDHS1H	12PDHS2H
Brick and				
Block	12GPS	12SBL	12PDHS1	12PDHS2
Abrasive				
Block	12GPS	12SBLA	12PDHS1A	12PDHS2A
	<u>14'</u>	<u>' x .125" x 1"</u>	- 20mm Arb	or
Material to Cut	Economy	Standard	Premium	Supreme
Cured				
Concrete	14GPS	14SBL	14PDHS1	14PDHS2
Asphalt				
Green Concrete	14GPS	14SBLA	14PDHS1A	14PDHS2A
Hard Brick				
& Masonry	14GPS	14SBL	14PDHS1H	14PDHS2H
Brick and				
Block	14GPS	14SBL	14PDHS1	14PDHS2
Abrasive				

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14SBLA

14GPS

Block

14PDHS1A

14PDHS2A



OPERATION & PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL NUMBER *ON-HAND* WHEN CALLING

PARTS DEPARTMENT

SERVICE DEPARTMENT

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310-537-3700

TECHNICAL ASSISTANCE

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WARRANTY DEPARTMENT

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310-537-3700, EXT. 279

SALES DEPARTMENT

310-661-4242 FAX: 310-604-9237

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