

SMALL ENGINE

Table of Contents

B

Blade Balancer	425
Bolt Thread Repair Kit	428
Book,	
Small Engine Repair Manual	429
Small Engine Textbook	429

Briggs & Stratton

Replacement Parts	423-425
Small Gasoline Engine.	423

C

Carburetor	
Adjusting Tool	425
Screwdriver	425
Clutch Wrench	425
Compressor,	
Piston Ring	428
Valve Spring	427
Cylinder	
Gauge	426
Hone	426

D - E

Distributor Adjusting Tool	425
DVD,	
Safety	429
Small Engine	429
Engine Basics Software	428
Engine, Small Gasoline.	423
Expander, Piston Ring	428

F - G

Flywheel Puller	425
Fuel Line/Vapor Emission Hose	424
Gasoline Engine, Small.	423
Gauge, Cylinder.	426
Grinder, Valve.	426

H - I

Heli-Coil Thread Repair	428
Hone, Cylinder	426
Hose, Fuel Line/Vapor Emission	424
Insertor,	
Magnetic Key	426
Valve Spring Keeper	426

K - L

Key Insertor, Magnetic.	426
Kit, Small Engine Tools.	425
Lapper, Valve.	426
Lifter, Valve.	427
Lubricant, Valve Guide.	427

M - O

Magnetic Key Insertor.	426
Module, Small Engine Repair.	428
O-Ring	
Assortment.	424
Tool.	428

P

Panel, Tool	426
Pilot & Wheel Set	427
Piston	
Ring Compressor & Expander	428
Ring Groove Cleaner	428
Vise	426
Plug Gauge.	425
Plug, Spark.	424

R

Reamer, Ridge	426
Refacing Tool, Valve	427
Ridge Reamer	426
Ring	
Compressor, Piston	428
Expander, Piston	428

S

Safety DVD	429
Screw Thread Repair Kit.	428
Screwdriver,	
Carburetor	425
Small Engine	425
Small Engine	
DVD	429
Parts	423-425
Repair Activity	428
Repair Manual.	429
Software	428
Stand	423
Text Book	429
Tool Panel	426
Tools	425-428
Software,	
Engine Basics.	428
Small Engine	428
Spark Plug	424
Spring	
Compressor, Valve	427
Remover, Valve	428
Stand, Small Engine	423

T

Tachometer, Small Engine	425
Thread Repair Kit	428
Tool Panel, Small Motor	426
Torque Wrench, Small Engine	425

V - W

Valve	
Grinder.	426
Grinding Compound	426
Guide Lubricant	427
Guide Repair Tools	425, 427
Lapper.	426
Lifter	427
Refacing Tool.	427
Seat Cutter Kit.	427
Spring Compressor	427
Spring Keeper Insertor.	426
Spring Remover	428
Vise, Piston	426
Vocational Module, Small Engine Repair.	428
Wheel & Pilot Set	427

Small Engine

Gasoline Engines	423
Engine Replacement Parts	423
Engine Tools & Supplies	425
Software, Books & DVDs	428

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Gas Engines

*Engine power levels are stated Gross Torque per SAE J1940, rather than HP. Torque is an accurate measure of the force required to turn the motor shaft.

Briggs & Stratton

4.75 Ft./Lbs. Gross Torque* (Replaces 3.5 HP)

475 Series™ Engine

Float carburetor, maintenance-free Magnetron® electronic ignition and Easy-Spin® compression release all allow quick, dependable starts.

- Kool Bore™ aluminum alloy bore allows cooler operation
- Maxi-Clean™ automotive-type pleated paper air filter provides superior protection for long engine life



Stk.	Mfg.	Displacmnt.	Bore	Stroke	Fuel Tank	Oil Cap'y. (fl. oz.)	Price
228256	93332-0535	9.02 cu.in	2.56"	1.75"	2.2 qts.	20	\$ 353.00

6.75 Ft./Lbs. Gross Torque* (Replaces 6.5 HP)

675 Series™ Engine

Reliable performing engine features maintenance-free Magnetron® electronic ignition and float carburetor for quick, dependable starts.

- Mechanical torque control for added power
- Large rewind reduces pulling for easy starts
- Lube Power™ lubrication system
- Mechanical compression release for smooth, quick starting
- Quiet-operating composite camshaft & aluminized Lo-Tone™ muffler
- Maxi-Clean™ pleated paper air filter for superior protection, long life
- 1-Start float carburetor assures consistent 1-pull starts



Stk.	Mfg.	Displacmnt.	Bore	Stroke	Fuel Tank	Oil Cap'y. (fl. oz.)	Price
228255	126702-0015	11.58 cu.in	2.69"	2.04"	1.00 qt.	20	\$ 215.00

8.75 Ft./Lbs. Gross Torque* (Replaces 6.75 HP)

875 Series™ Engine

The most powerful line of walk behind lawn mower engines. Overhead valve (OHV) technology delivers premium power and performance.

- Mechanical torque control for added power
- Kool Bore™ aluminum alloy bore runs cooler
- Dual-Clean™ air cleaner pleated paper filter w/foam precleaner provides superior protection for long life
- Large rewind reduces pulling for easy, 1-pull starts
- Quiet-operating composite camshaft & aluminized Lo-Tone™ muffler
- Maintenance-free Magnetron® electronic ignition & float carburetor
- Lube Power™ lubrication system



Stk.	Mfg.	Displacmnt.	Bore	Stroke	Fuel Tank	Oil Cap'y. (fl. oz.)	Price
228253	125502-0015	11.58 cu.in	2.69"	4.00"	1.00 qt.	22	\$ 399.00

Gas Engines, cont.

*Engine power levels are stated Gross Torque per SAE J1940, rather than HP. Torque is an accurate measure of the force required to turn the motor shaft.

Briggs & Stratton, cont.

9.00 Ft./Lbs. Gross Torque* (Replaces 6.5 HP)

900 Series™ CARB Compliant Engine

6:1 gear reduction makes engine ideal for cement mixers and pumps. EPA/CARB compliant engine is good for sale in all states (including California). Dura-Bore™ cast iron cylinder sleeve for extended life.



- Maintenance-free Magnetron® electronic ignition & float carburetor for quick, dependable starts
- Dual-Clean™ air cleaner pleated paper filter w/foam precleaner provides superior protection for long life
- Overhead valve (OHV) design for cooler operation, longer life

Stk.	Mfg.	Displacmnt.	Bore	Stroke	Fuel Tank	Oil Cap'y. (fl. oz.)	Price
228254	122032-0536	12.48 cu.in	2.69"	2.20"	2.9 qts.	20	\$ 333.00

Gas Engine Accessories

Briggs & Stratton

Repair Manual. For Briggs & Stratton 1-cylinder, 4-cycle engines.

Stk. 204340	Mfg. 270962	\$ 16.30
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Greene Small Engine Stand. Heavy-gauge steel stand adjusts to secure horizontal or vertical engines. Pre-drilled mounting bracket. All welded construction. Gray. 9-1/2" x 10" x 4".
Stk. 433655 Mfg. EL-40 \$ 91.90

Small Engine Replacement Parts

Briggs & Stratton



Air Filter Elements

Stk. 203203	Mfg. 27987S	2 to 5 HP Horizontal	\$ 3.81
Stk. 203206	Mfg. 270579S	3 to 3.5 HP Vertical	3.53

Air Filter Cartridges

For 2 to 5 HP Horizontal & Vertical	Stk. 203215	Mfg. 392308S	\$ 8.25
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For 3 to 5 HP horizontal, 3.5 to 6 HP (12 CID) Quantum® & 6 HP (13 CID) vertical.

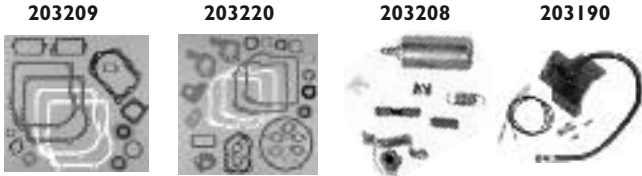
Stk. 203221	Mfg. 491588S	\$ 4.61
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Head Gasket

Stk. 203207	Mfg. 272157S	5 HP Horizontal & Vertical	\$ 4.02
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Small Engine Replacement Parts, cont.

Briggs & Stratton, cont.



Gasket Sets

- Stk. **203209** Mfg. 794209 3 to 3.5 HP Vertical \$ **11.20**
- Stk. **203220** Mfg. 495602 2 to 3.5 HP Horizontal **19.60**

Condenser & Breaker Assemblies

- Stk. **203208** Mfg. 294628 2 to 8 HP Horizontal & Vertical \$ **6.56**
- Stk. **203211** Mfg. 299061 w/plug & plunger **13.50**

Magnetron Armatures. Horizontal & vertical.

- Stk. **203190** Mfg. 793281 2 to 4 HP \$ **29.40**
- Stk. **203222** Mfg. 397358 5 HP **34.70**

Starter Ropes. 200' L.

- Stk. **203212** Mfg. 790965 #4 \$ **22.90**
- Stk. **203213** Mfg. 790966 #4-1/2 **25.40**



Needle Valves

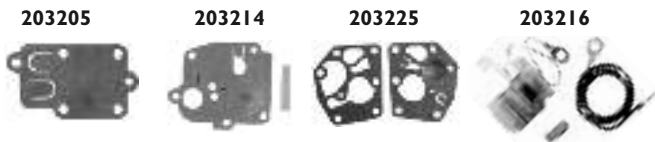
- Stk. **203210** Mfg. 299060 3 to 5 HP Horizontal & Vertical \$ **6.52**
- Stk. **203217** Mfg. 395508 3 to 4 HP Vertical **4.37**

Starter Clutch. For most rewind starter engines.

- Stk. **203218** Mfg. 399671 \$ **15.60**

Recoil Spring. For most rewind starter engines w/starter clutch.

- Stk. **203219** Mfg. 490179 \$ **6.21**



Diaphragms

- Stk. **203205** Mfg. 270026 3 to 5 HP Horizontal \$ **2.97**
- Stk. **203214** Mfg. 391681 3.5 to 4 HP Vertical **5.31**

Pulsa Prime Carburetor Diaphragm

- Stk. **203225** Mfg. 795083 for 3 to 3.75 HP vertical \$ **3.64**

Magnetron® Kit. For retrofitting most 2-legged ignition armatures w/breaker points.

- Stk. **203216** Mfg. 394970 \$ **14.00**

Flywheel Key

- Stk. **203204** Mfg. 222698S for most engines \$ **2.07**

203230 942879 942876



Starter Pinion Gear. Use w/plastic flywheel ring gears.

- Stk. **203230** Mfg. 695708 \$ **4.43**

Champion Spark Plugs. Small engine spark plug.

- Stk. **942879** Mfg. 12443 J8C \$ **2.98**
- Stk. **942807** Mfg. 12444 CJ8 **2.96**
- Stk. **942808** Mfg. 12446 J17LM **3.08**
- Stk. **942670** Mfg. 13497 RC14YC **3.16**
- Stk. **942671** Mfg. 12452 RJ19LM **3.82**

Fuel Line / Vapor Emission Hoses. Nitrile tube suitable for lead or unleaded gasoline, plus many Ethanol & Methanol-based gasohol blends (not for use w/fuel injected systems). Meets or exceeds SAE30R7 specifications. 25' L.

- Stk. **942876** Mfg. 25060 1/4" \$ **26.50**
- Stk. **942877** Mfg. 25078 5/16" **27.90**
- Stk. **942878** Mfg. 25088 3/8" **31.20**

Fastener Barn

485530 485525 485542



Roll Pin Assortment. Replaces most pin requirements. Carbon steel pins w/plain finish. 315 assorted pins. Includes case, plus:

Qty.	Dia.	Sizes	Qty.	Dia.	Sizes
10	5/32"	5/8", 1" & 1-1/2"	10	5/64"	1/4", 1/2" & 1"
10	1/16"	3/16", 3/4" & 5/16"	10	3/32"	5/8", 1" & 1-1/4"
15	1/8"	5/8", 1" & 1-1/4"	10	1/4"	5/8", 1-1/4" & 1-3/4"
10	5/16"	3/4", 1-1/2" & 2"	5	3/8"	3/4", 1-1/2" & 2"
10	7/32"	5/8", 1-1/4" & 1-3/4"	15	3/16"	5/8", 1" & 1-1/4"

Stk. **485530** Mfg. RP99 315/pkg. \$ **35.30**

O-Ring Assortment. For auto, small engine lawn mower, industrial & implement needs. Made of Buna-N, 70 durometer. Includes case, plus:

Qty.	Inside Dia.	Outside Dia.	Thickness	Qty.	Inside Dia.	Outside Dia.	Thickness
20	1/8"	1/4"	1/16"	20	5/32"	9/32"	1/16"
20	3/16"	5/16"	1/16"	15	7/32"	11/32"	1/16"
15	1/4"	3/8"	1/16"	15	5/16"	7/16"	1/16"
10	3/8"	1/2"	1/16"	10	3/8"	9/16"	3/32"
10	7/16"	5/8"	3/32"	10	1/2"	11/16"	3/32"
10	9/16"	3/4"	3/32"	10	5/8"	13/16"	3/32"
10	11/16"	7/8"	3/32"	10	3/4"	15/16"	3/32"
10	3/4"	1"	1/8"	10	13/16"	1-1/16"	1/8"
10	7/8"	1-1/8"	1/8"	10	15/16"	1-3/16"	1/8"

Stk. **485525** Mfg. OR99 225/pkg. \$ **24.70**

Snap Ring Assortment. High-quality carbon spring steel. Incl. case, plus:

Qty.	Size	Dia.	Qty.	Size	Dia.	Qty.	Size	Dia.
30	1/4"	.250	20	5/16"	.312	50	3/8"	.375
20	7/16"	.438	50	1/2"	.500	20	9/16"	.562
30	5/8"	.625	35	3/4"	.750	10	13/16"	.812
20	7/8"	.875	10	1"	1.000	5	1-1/4"	1.250

Stk. **485542** Mfg. SR99 300/pkg. \$ **34.30**

SMALL ENGINE

Automotive Tool & Storage Cabinet.

Page 473.

Locking Tool & Storage Cabinets.

Pages 61-69.



Small Engine Replacement Parts, cont.

Briggs & Stratton, cont.



Square Key Assortment

Carbon steel keys w/square ends. All 1-1/2"L. Includes case, plus:

Qty.	Size	Qty.	Size	Qty.	Size
15	1/8" x 1/8"	15	3/16" x 3/16"	10	1/4" x 1/4"
10	5/16" x 5/16"	5	3/8" x 3/8"	5	1/2" x 1/2"

Stk. **485538** Mfg. SK99 60/pkg. \$ 45.00

Shop Assortment. Includes 25 "E" clips (1/4"D & 3/8"D) & case, plus:

Woodruff Keys	Roll Pins	Snap Rings
25) 3/32" x 3/8"	20) 1/8" dia. x 5/8"L	25) 3/8" dia.
25) 3/32" x 1/2"	20) 1/8" dia. x 1"L	25) 1/2" dia.
25) 1/8" x 1/2"	20) 5/32" dia. x 5/8"L	25) 5/8" dia.
40) 1/8" x 5/8"	20) 5/32" dia. x 1"L	25) 3/4" dia.
50) 5/32" x 5/8"	20) 3/16" dia. x 5/8"L	
25) 3/16" x 3/4"	20) 3/16" dia. x 1"L	

Stk. **485535** Mfg. SA99 460/pkg. \$ 43.20

Woodruff Key Assortment. Carbon steel, standard half-moon keys. Includes case, plus:

Qty.	Length	Each of Width	Each of Width	Each of Width	Each of Width
40	3/8"	10 of 1/6"	20 of 3/32"	10 of 1/8"	—
40	1/2"	10 of 1/6"	15 of 3/32"	15 of 1/8"	—
95	5/8"	10 of 3/32"	30 of 1/8"	50 of 5/32"	5 of 3/16"
55	3/4"	20 of 1/8"	10 of 3/4"	20 of 3/16"	5 of 1/4"
20	7/8"	5 of 5/32"	5 of 3/16"	5 of 7/32"	5 of 1/4"

Stk. **485555** Mfg. WK99 250/pkg. \$ 42.30

Small Engine Tools

Small Engine Tool Kit

Briggs & Stratton Handy kit full of tools for repairing and working on 2 and 4 cycle gas engines.

Qty.	Description	Qty.	Description
1	Bender, Tang	1	Puller, Flywheel 10.5-22 HP
1	Compressor, Piston Ring, 5 HP & below	1	Screwdriver, Carburetor Adjustment
1	Compressor, Piston Ring, above 5 HP	1	Screwdriver, Carburetor Jet, 4 Bladed
1	Compressor, Valve Spring	1	Tachometer
1	Gauge, Plug, fits 1/4" Valve Guide	1	Tester, Ignition
1	Gauge, Plug, fits 5/16" Valve Guide	1	Tool Catalog
1	Gauge, Brake Adjustment	1	Valve Lapper, w/3/4" & 1-1/4" suction cups
1	Holder, Flywheel	1	Valve Lapping Compound
1	Puller, Flywheel, 6.5 HP & below	1	Valve Lubricant
1	Puller, Flywheel, 7-11 HP	1	Wrench, Starter Clutch

Stk. **204315** Mfg. 19300 \$ 285.00

Tachometers

Briggs & Stratton 800-50,000 rpm, 14-750 cycles. Vest pocket meter transforms vibration into rpm in a straight-forward gauge.

Stk. **204136** Mfg. 19200 \$ 30.50



Stewart-Warner Hand Tachometer. 0-4,000 clockwise, counterclockwise 3" dia. shaft, 4"L. Used for direct measure on rotating shaft.

Stk. **886000** Mfg. 82682 \$ 144.00

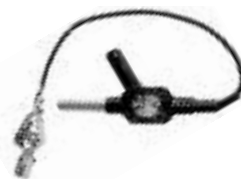


Small Engine Tools, cont.

Ignition Spark Tester

Briggs & Stratton

Stk. **203000** Mfg. 19368 \$ 24.40



Carburetor Jet Screwdrivers

Briggs & Stratton For removing most carburetor jets.

Stk. **203335** Mfg. 19061 3/16" x 5" \$ 15.80

Stk. **203402** Mfg. 19062 1/4" x 5-3/4" 16.70



Distributor & Carburetor Adjusting Tool

Zim 1/8" hex bit and screw drive adapter.

Stk. **988541** Mfg. 730 11"L \$ 9.87



Torque Wrench

Briggs & Stratton Range is 0 to 300 inch lb.

Stk. **204327** Mfg. 19393 \$ 101.00



Valve Guide Repair Kit

Briggs & Stratton For servicing 5/16" valve guides above 5 HP.

Includes plug gauge, bushing driver, counter-bore reamer, finish counterbore reamer, guide, puller bolt, nut, washer & 9mm tap.

Stk. **204208** Mfg. 19232 \$ 144.00



Plug Gauges

Briggs & Stratton

Stk. **203871** Mfg. 19122 fits 1/4" valve guide \$ 10.30

Stk. **203938** Mfg. 19151 fits 5/16" valve guide 20.70



Blade Balancer

Arnold For checking the balance of the blade after sharpening. Allows for optimum cutting performance.

Stk. **942809** Mfg. SBB-102 \$ 3.34



Clutch Wrench

Briggs & Stratton Removes rewind starter clutches.

Stk. **204273** Mfg. 19244 \$ 15.90



Flywheel Pullers

Briggs & Stratton

Stk.	Mfg.	Fits	Price
203737	19069	small L-head engines to 6.5 HP & Europa ...	\$ 11.00
204005	19165	7 to 8 HP L-head engines & early 11 HP....	11.00
204139	19203	larger L-head & most OHV engines	14.50



SMALL ENGINE

Small Engine Tools, cont.

Small Motor Tool Panel

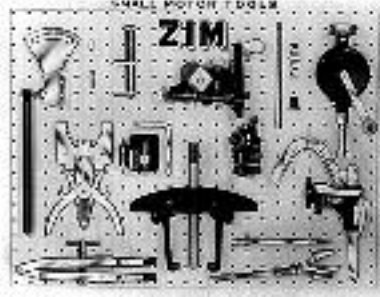


Zim 19" x 25" panel.

Includes

- Valve Refacer
- Cylinder Gauge
- Valve Grinder
- Piston Ring Expander
- Vacuum Cup Valve Grinder
- Piston Ring Compressor
- Piston Groove Cutter & Cleaner
- Valve Spring Compressor

Stk. **987067** Mfg. SD-2 \$ **209.00**



- Gear Puller
- Cylinder Ridge Reamer
- Magnetic Key Inserter
- Cylinder Hone

Cylinder Gauge

Zim Cylinder gauge for small engines, 1-3/4" to 3-1/4". May be preset to zero for checking small engines. Gauge, setter and 2 extension parts furnished in a plastic case with instructions. For Briggs & Stratton and other small engines.

Stk. **987469** Mfg. 165 \$ **104.00**



Cylinder Hone

Lisle Small cylinder hone for 1-3/4" to 2-3/4" cylinders. Stones are 3-1/2"L, assuring unusual accuracy. 3 sets of stones cover full range of cylinder sizes and are easily changed.

Includes 16410, 16420 & 16430, 180 grit stone sets & case.
Stk. **503812** Mfg. 16000 \$ **210.00**

Replacement Stones & Wiper Sets. Includes 2 stones & 2 wipers. 180 grit. 3-1/2"L.

Stk. 503814 Mfg. 16410	1.75" to 2.2" cylinder range	\$ 21.10
Stk. 503816 Mfg. 16420	2.05" to 2.5" cylinder range	21.10
Stk. 503818 Mfg. 16430	2.35" to 2.75" cylinder range	21.10

Self-aligning Small Cylinder Hone

Zim Range 3/4" to 2-3/4". No adapters needed to change size. An adjustment controls pressure in any size cylinder. Flexible shaft allows you to hone cylinders without removing the engines. Complete w/honing stones. Plated finish.

Stk. **988273** Mfg. 540 7-3/4"L \$ **22.50**
Stk. **988340** Mfg. 541 Replacement Honing Stone Set **5.76**

Piston Vise

Zim Used to hold pistons, armatures or anything circular. Jaws lined with brake lining. Pistons cannot be scratched or injured. Piston range 2-1/2" x 5-1/2". New rings can be installed without removing the connecting rod.

Stk. **987860** Mfg. 260 \$ **68.40**



Ridge Reamer

Zim Designed to cut clear across the ridge. Employs a tilting combination cutter and stop.

Stk. **987871** Mfg. 287 range 2" to 3" \$ **45.30**
Stk. **987268** Mfg. P-70 Replacement Cutter **2.57**



Split Valve Spring Keeper Inserter

Zim Universal tool for inserting all sizes of split and horseshoe type keepers. 1 hand operation will work either straight in or on an angle. Steel construction.

Stk. **988608** Mfg. 820 \$ **7.56**



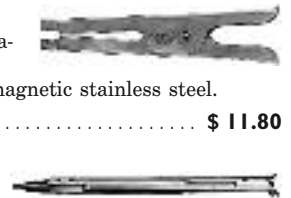
Magnetic Key Inserters

Zim For replacing split valve keys. Permanent magnets hold key snugly in the jaws of a pair of spring control levers on nonmagnetic stainless steel.

Stk. **988675** Mfg. 840 \$ **11.80**

Zim For Briggs & Stratton engines. 1 end is equipped with a permanent magnet for holding split valve locks. Other end is made to hold the locking pins used on some motors.

Stk. **988742** Mfg. 842 \$ **7.42**



Valve Grinders

Zim Special valve grinding bit, small spring and small vacuum cup, plus small and large self-locking stems.

Stk. **987938** Mfg. 301S \$ **14.90**

Zim 3/4" dia. cup.

Stk. **988005** Mfg. 311 \$ **2.27**

Replacement Cup. For Valve Grinders above.

Stk. **988072** Mfg. 333 \$ **.93**



Valve Lappers

Lisle Eliminate slippage with these valve lappers. The unique locking tab positively secures cups to sturdy, hardwood handles.

Stk. **503833** Mfg. 21100 1-1/8" & 1-3/8" dia. cups (for larger valves) \$ **7.28**
Stk. **503835** Mfg. 21200 5/8" & 13/16" dia. cups (for smaller valves) **6.79**



Valve Grinding Compound

Briggs & Stratton Aids valve grinding and seating operations to remove burrs, surface defects, carbon, gum and corrosion. Can be used for lapping and grinding chromium. For hardened steel seats or cast blocks. Use for hand or machine grinding. Mixes with water to form an easy-to-use paste.

Includes fine & coarse valve grinding compounds.

Stk. **228375** Mfg. 94150 two 2 oz. cans \$ **18.50**



Small Engine Tools, cont.



Valve Guide Lubricant

Briggs & Stratton Non-galling, non-seizing, noncorrosive metallic lead lubricant and sealer. Use with threaded fittings, gaskets and assemblies. Approved for gas, butane and oil.

Stk. **204330** Mfg. 93963 1 lb. \$ **13.10**

Valve Spring Compressors

Zim For removing and replacing valve springs on Briggs & Stratton engines. Reaches into small recesses where valve springs and retaining washers are located. Arms, hinged together at one end, are practically parallel at the other. Cadmium-plated. Made entirely of steel.



Stk. **987402** Mfg. 131 \$ **17.00**

Lisle Tool makes spring compression and keeper removal a simple job because there is no need to remove the head. Adjustable cam action. There is no need to readjust the tool after each spring.



Stk. **503822** Mfg. 16750 \$ **38.10**



Lisle For springs 3/4" to 1-1/16". Heavy-duty frame and screw for rigidity. 2 jaw sizes. Fits Briggs and Stratton, Clinton, Harley-Davidson, etc.

Stk. **503841** Mfg. 23300 \$ **21.50**

Valve Lifter

Zim One-hand lightweight C-type lifter leaves the other hand free to handle the valve spring keepers. Ratchet locks automatically at any position. 9" throat with full opening. 9" to handle most cars and lighter trucks. Cold rolled steel frame, hardened jaws.



Includes 2 adjustable jaw sets.

Stk. **987300** Mfg. 116 \$ **43.50**

Valve Lifter & Spring Compressor

Zim Turn hand wheel counterclockwise to compress, and clockwise to lift a spring. No ratchet is needed. All steel except handle. Heat-treated.



illustrates spring compression

Stk. **987335** Mfg. 122 \$ **18.90**

Valve Refacer

Zim Clamp is designed to direct the main spring into the machined V-block. Casting is adapted to be held either in a vise or screwed to a bench.



Includes carbide cutter for small engine valves.

Stk. **988206** Mfg. 516 \$ **21.50**

Stk. **988139** Mfg. 515 Replacement Cutter **9.12**

Valve Refacing Lathe

Zim Hand operated lathe is compact, chatter and vibration proof. Handles 30°, 45° and 60° angle valves with up to 3/8" stems and valve heads to 2-1/4" dia. 2 universal joints are in the shaft. Feed is reversible and can cut in either direction. Base holes for work bench attachment. Lugs for use in vise.



Includes Jacobs chuck, carbide cutter & adjustable slide.

Stk. **988225** Mfg. 525 \$ **427.00**

Stk. **988228** Mfg. 526 Replacement Cutter **22.50**

Deluxe Valve Refacer

Kwik-Way Fingertip control panel features valve counter, chuck speed control, separate switch positions for spindle and chuck motors, valve speed chart and machine maintenance chart.



- Precision 6-ball chuck (*no collets to change*)
- Self-aligning & accurate to 0.0005
- Valve swivel plates adjust in 1° increments from 13° to 62°
- Grinding wheel is shielded by a protective housing
- Air-activated VS chuck to match the proper speed needed to grind a variety of valve material
- Self-contained 1 gal. coolant
- Mfg.'s 3-yr. limited warranty
- Standard chuck capacity

Chuck capacity .1575" to .5625". Valve head capacity .75" to 4" dia. Stem 1.850"L. Valve wheel 7" dia. Surface wheel 3" dia.

Spindle drive motor 1/2 HP. Chuck drive motor 1/12 HP gear drive. Coolant capacity 1 gal. Valve wheel speed 3,450 rpm/6,322 sfpm.

Stem wheel speed 3,450 rpm/2,708 sfpm. VS chuck 100 to 300 rpm. Min. air requirement 65 psi.

Tool size 37"L x 22"W x 16"H. Tool weight 330 lbs. (*shipping*).

Includes grinding wheel, 3 hex wrenches (1/8", 5/32" & 3/17"), 1 gal. grinding oil, chuck assembly tool, spanner wrench, diamond dressing tools for tip & face grinding, plus rocker arm attachment.

Stk. **500700** Mfg. 012-0005-00 Valve Refacer \$ **7,816.00**

Stk. **500680** Mfg. 010-0709-00 Valve Grinding Wheel **96.80**

7/16" Master Grinding Wheel & Pilot Set

Kwik-Way Set has 27 general purpose wheels and 30 pilots (*standard & metric*) specifically selected to meet individual seat grinding needs.



Includes

- 1 ea. 1-1/4", 1-3/8", 1-1/2", 1-9/16", 1-5/8", 1-3/4" & 2" dia. in 15°, 30° & 45°
- 2 ea. 1-7/8" & 2-1/8" dia. in 15°
- 1 ea. 1-7/8" & 2-1/8" dia. in 45°

Stk. **500715** Mfg. 030-0030-00 \$ **2,001.00**

7/16" Seat Grinder Basic Set

Kwik-Way The foundation of a valve seat reconditioning system. Add a set of seat grinding wheels and pilots to tailor to individual needs. High-quality wheel dresser features an all bearing grinder and powerful 11,500 rpm motor (115V, 7.5 amps, 3/5 HP).



Includes SGH hex drive motor, heavy-duty wheel dresser, 7/16" stone holder, pilot & wheel organizer, strap wrench assembly, wheel dresser pilot, pilot puller, 2 leather washers & molded case.

Stk. **500720** Mfg. 035-0001-10 \$ **2,127.00**

Neway Valve Seat Cutter Kit

Briggs & Stratton For reconditioning 30° and 45° angle valve seats on Vanguard™ 3 cylinder liquid-cooled engines. Also has 15° cutter for top cutting 30° angle seats.



Includes 6.0 & 6.02mm pilots.

Stk. **204329** Mfg. 19446 \$ **383.00**

Small Engine Tools, cont.

Valve Spring Remover for Overhead Valve Engines



Zim Lifts out valve keys and spring without taking off cylinder head. Quickly adjusts to fit any valve spring. 1-man operation is speedy and simple. Hardened jaws.

Stk. **987411** Mfg. 140 \$ **32.00**

Ring Compressor

Zim Compressor takes all rings at once, including skirt rings. Self-locking, heavy-duty ratchet pawl prevents premature release. Tension band of high spring steel eliminates bottom flare. Approved for Briggs & Stratton and other small engines. 2" depth.



Includes wrench.

Stk. **987670** Mfg. 217 1-3/4" to 3-1/2" capacity \$ **7.73**

Piston Ring Expanders

Zim For installing and removing piston rings without breaking or distorting. No adjustment needed. All rings expanded whether step cut or diagonal cut. Approved for Briggs & Stratton.



Stk. **987603** Mfg. 203 1-1/4" to 2-1/4" capacity \$ **9.85**

Stk. **987600** Mfg. 201 2" to 4" capacity \$ **14.90**

Piston Ring Groove Cleaners

Zim Designed for limiting the depth of cut. Side flanges for slotted pistons. 5 points for grooving and 1 for trimming lands on 1 blade. Spring-and-ball ratchet controls alignment of blade. Cutter is hardened and ground.



Stk. **987804** Mfg. 225A 2" to 3" capacity \$ **21.90**



Zim Hardened cutter 5/64", 3/32", 1/8", 5/32" and 3/16". To change position of cutter, loosen the screw and turn, no wrench needed.

Stk. **987737** Mfg. 221 5-1/2" capacity \$ **9.83**

O-Ring & Seal Pick

Lisle Angled tips quickly remove and install O-rings and seals even in hard-to-reach places. Tips are hardened to stay sharp. Knurled handle for a sure grip.



Stk. **503819** Mfg. 31840 \$ **5.99**

Thread Repair Kits

Heli-Coil Inserts are precision-formed screw thread coils of stainless steel wire with a diamond-shaped cross section. When installed into Heli-Coil® tapped holes they provide permanent conventional 60° internal screw threads to fit any standard bolt or screw.



Includes 12 stainless steel inserts, tap & installation tool.

Stk. **942755** Mfg. 5521-4 1/4-20 coarse \$ **33.90**

Stk. **942756** Mfg. 5521-5 5/16-18 coarse \$ **33.90**

Instructional DVDs, Videos & Software are nonreturnable.

Small Engine/Power Mechanics Resources

Engine Basics Software



Shopware Multimedia CD provides an fun and thorough look at the basics of engine mechanics. Using videos, colorful animations and photos, the program explores the 4 areas of: crankshafts; flywheels, camshafts, and valves; pistons, rings, and pins; and carburetors and fuel injection. Quizzes are at the end of each section, and teachers may access scores to monitor progress and understanding.

Stk. **794686** Mfg. 8240 Macintosh / Windows \$ **99.00**

Small Engine Software



Shopware 3-D animations allow students to experiment w/system parts & interactions. Includes instruction, lessons & quizzes.

Part 1. Compares and contrasts 2- vs 4-cycle theory, operation and parts (*valves, pistons, ports, crankshafts, etc.*). 3-D animation of a 2-cycle engine allows the study of speed from stop to full out throughout the cycles. Slow motion viewing of how each engine cycle supports the next. Stk. **794515** Mfg. 20494 Windows \$ **165.00**

Part 2. Shows small engine systems (*lubrication, fuel, air filtering, speed control & cooling*). 3-D animation control teaches the importance of engine governors in keeping steady engine speed under varying load conditions. Compares and contrasts 2-VS 4-cycle lubrication. Provides an introduction to carburetor operation (*both below & above tank*). Stk. **794521** Mfg. 20491 Windows \$ **165.00**

Part 3. Highlights basic engine troubleshooting, ignition troubleshooting and procedures and a step-by-step basic overhaul. 3-D animation control offers 2 engines on the workbench and then running. On-screen photo library shows spark plugs running under various conditions to study visual "reading" and troubleshooting techniques. Stk. **794523** Mfg. 20488 Windows \$ **165.00**

Purchase the Set & Save!

Multimedia Series

Stk. **794529** Mfg. 20485 3-Software Set (*listed above*) \$ **495.00**

Small Gas Engine Repair Activity



Midwest Activity has necessary engine, tools, computer software and videos to enable students to disassemble and reassemble small gasoline engines. A small engine curriculum is also provided with this module.



Briggs & Stratton 3 HP horizontal shaft, 4-cycle gasoline engine features Flo-Jet carburetor. The small bench mount stand provides support while working on the engine.

Software courses include small engine safety, 2-cycle and 4-cycle engines, lubrication systems, spark plugs, ignition systems, fuel systems, engine overhaul, tools and fasteners.

Disassembly and assembly videos cover a step-by-step approach for tearing down an engine and rebuilding procedures including safety practices with correct removal processes.

Includes

Small Engine Software Series
Sm. Eng. Assembly-I DVD
Sm. Eng. Assembly-II DVD
Sm. Eng. Assembly-III DVD
Sm. Eng. Disassembly-I DVD
Sm. Eng. Disassembly-II DVD
Sm. Eng. Disassembly-III DVD
Small Engine Stand
2 Repair Manuals

Gas Engine
Motor Tool Kit
Sm. Eng. Tool Panel
16 pc. 1/2" Socket Set
18 pc. Allen Wrench Set
13 pc. Combination Wrench Set
10 pc. Screwdriver Set
1/2" Torque Wrench

Stk. **537001** Mfg. MW-ERM Windows* \$ **2,695.00**

*Available in Macintosh format upon request.

Small Engine/Power Mechanics Resources, cont.



Small Engine Textbook

Briggs & Stratton Heavily illustrated book is 300 plus pages packed with theory and concisely explains the most difficult concepts. Students won't find space wasted with repair procedures. Concepts presented easily transcend into other air-cooled engine lines. Written by R. Bruce Radcliff, director of education at Briggs and Stratton.

Stk. **204350** Mfg. CE8020. \$ **126.00**

Small Engine Care & Repair Manual

Briggs & Stratton A step-by-step guide to maintaining 4 cycle (*stroke*), single cylinder small engines, both L-head & OHV. 143 pages with over 300 color photos. Includes safe handling techniques along with many step-by-step pictures to common maintenance, testing and trouble shooting procedures in an easy-to-understand format.

Stk. **203151** Mfg. 274041 \$ **18.10**



Repair Manual

Briggs & Stratton For most single cylinder L-head (*side valve*) engines built after 1981. Manual contains common specifications and detailed, easy-to-follow instructions on how to adjust, tune-up and repair engines. This best seller is used by authorized Briggs and Stratton Service Centers. Contains over 350 pages.

Stk. **204340** Mfg. 270962. \$ **16.30**

OHV Repair Manual

Briggs & Stratton For single cylinder overhead valve engines built after 1981. Has common specifications and detailed, easy-to-follow instructions on how to adjust, tune-up and repair Briggs & Stratton 4-cycle single cylinder overhead valve engines.

Stk. **203150** Mfg. 272147. \$ **18.70**



Small Gas Engine Disassembly DVDs

CEV Series covers safety practices & proper disassembly techniques, plus reproducible questions, final quiz, answer key.



Part I. Techniques are illustrated using a 5 HP Briggs & Stratton engine. Shown are removal of the fuel tank, air filter, carburetor and linkage, muffler, blower housing, mechanical governor, and spark plug. Checking the engine for proper compression is also discussed.

Stk. **125841** Mfg. CEVD880 39 min. \$ **109.00**

Part II. Shown are checking the armature air gap settings, removal of the cylinder head, crankcase breather, valves and springs, flywheel, and armature. Also discussed is how a 4-stroke engine operates and how to check valve-to-tappet clearance inspection of the flywheel key.

Stk. **125842** Mfg. CEVD881 43 min. \$ **109.00**

Part III. DVD includes the procedures for checking crankshaft and play and the removal of the sump. Also explained are the mechanical governor, and removal of the oil slinger, camshaft, tappets, piston and crankshaft. The final disassembly procedure featured is the removal of the rings and connecting rod from the piston.

Stk. **125843** Mfg. CEVD882 31 min. \$ **109.00**

Small Gas Engine Assembly DVDs

CEV Series covers the safety practices and proper techniques for re-assembly. Includes reproducible questions, final quiz & answer key.



Part I. Techniques are illustrated using a 5 HP Briggs and Stratton engine. Shown is the procedure for removing all gasket residue, the installation of the crankshaft, checking ring gap, assembly and installation of the piston and rings, and installation of the tappets, camshaft, oil slinger, governor and sump. The importance of lubricating major components during reassembly is emphasized.

Stk. **125844** Mfg. CEVD883 39 min. \$ **109.00**

Part II. DVD illustrates the installation of the valves, checking valve-to-tappet clearance, installation of the armature, replacing the flywheel, setting the armature air gap, and installing the cylinder head.

Stk. **125845** Mfg. CEVD884 27 min. \$ **109.00**

Part III. The final DVD illustrates the installation of the crankcase breather, spark plug, muffler, carburetor, and blower housing. Checking the ignition system for proper operation and installation of the oil tube, air filter, and fuel tank complete the reassembly procedure.

Stk. **125846** Mfg. CEVD885 27 min. \$ **109.00**

Small Engine Maintenance DVDs

CEV Series covers proper procedures for maintaining and repairing small engines to extend the life of engines. Includes reproducible questions, final quiz & answer key.



Check Up. Includes discussions on the techniques necessary for inspecting and measuring the journals on the crankshaft and camshaft, checking the cam gear bearing in the sump, and measuring ring gap. Also included are proper procedures for measuring the cylinder bore, ring grooves on the piston, wrist pin, and valve stems. Includes demonstrations on how to check valve guides, main bearings and the wires, coil and legs of the armature.

Stk. **125849** Mfg. CEVD888 45 min. \$ **109.00**

Clean Up. DVD illustrates the proper cleaning procedures for armature, flywheel, carbon deposits, valves, ring grooves, and air cleaner. Also demonstrated is the removal of gasket residue and the steps necessary for removing a ridge from the cylinder.

Stk. **125850** Mfg. CEVD889 35 min. \$ **109.00**

Repair. Proper techniques for honing the cylinder, repairing valve guides, seating valves, replacing the oil seal and washing the engine upon completion of all repairs is demonstrated.

Stk. **125851** Mfg. CEVD890 38 min. \$ **109.00**

Small Engine Carburetor DVDs

CEV Series features the identification of parts, disassembly, cleaning, repair & assembly of carburetors. Includes reproducible questions & answer key.



Carburetor I. Features the Vacu-Jet and Flo-Jet (*float type*) carburetors. The correct procedures for removing the needle valve assembly, cleaning the nozzle, checking the venturi, adjusting the float and re-assembling all components, and proper adjustment procedures for the needle valve are demonstrated.

Stk. **125847** Mfg. CEVD886 33 min. \$ **109.00**

Carburetor II. Features the horizontal Pulsa-Jet and vertical Pulsa-Jet carburetors. The proper procedures for removing and replacing the diaphragm, needle valve assembly, and throttle shaft, and checking the fuel tank for warping is demonstrated.

Stk. **125848** Mfg. CEVD887 37 min. \$ **109.00**

Instructional DVDs, Videos & Software are nonreturnable.