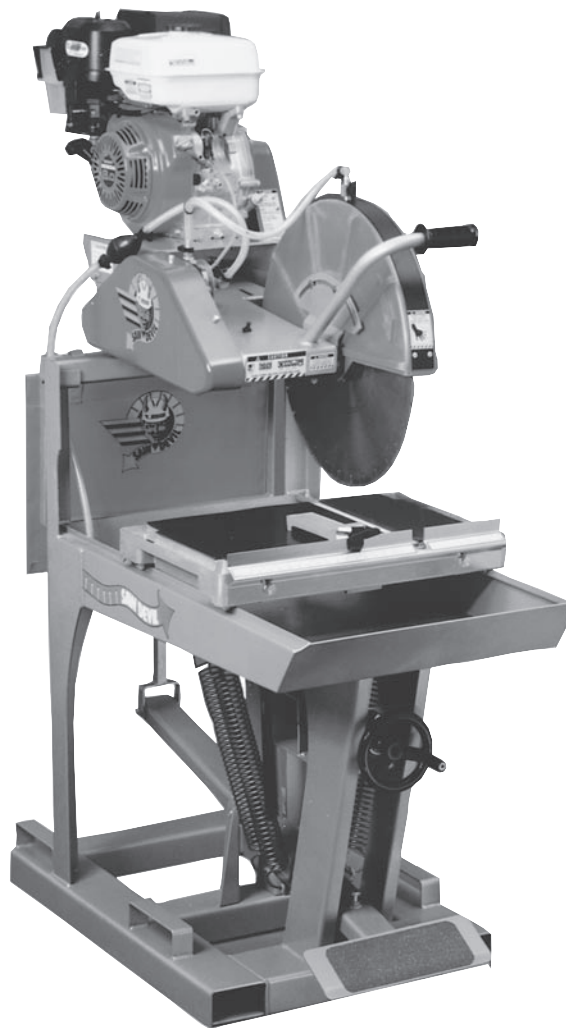




OPERATOR MANUAL

MODEL: MS1 and MS2



SAW DEVIL®

Portable / Professional Masonry Saw

A 100% employee-owned American manufacturer

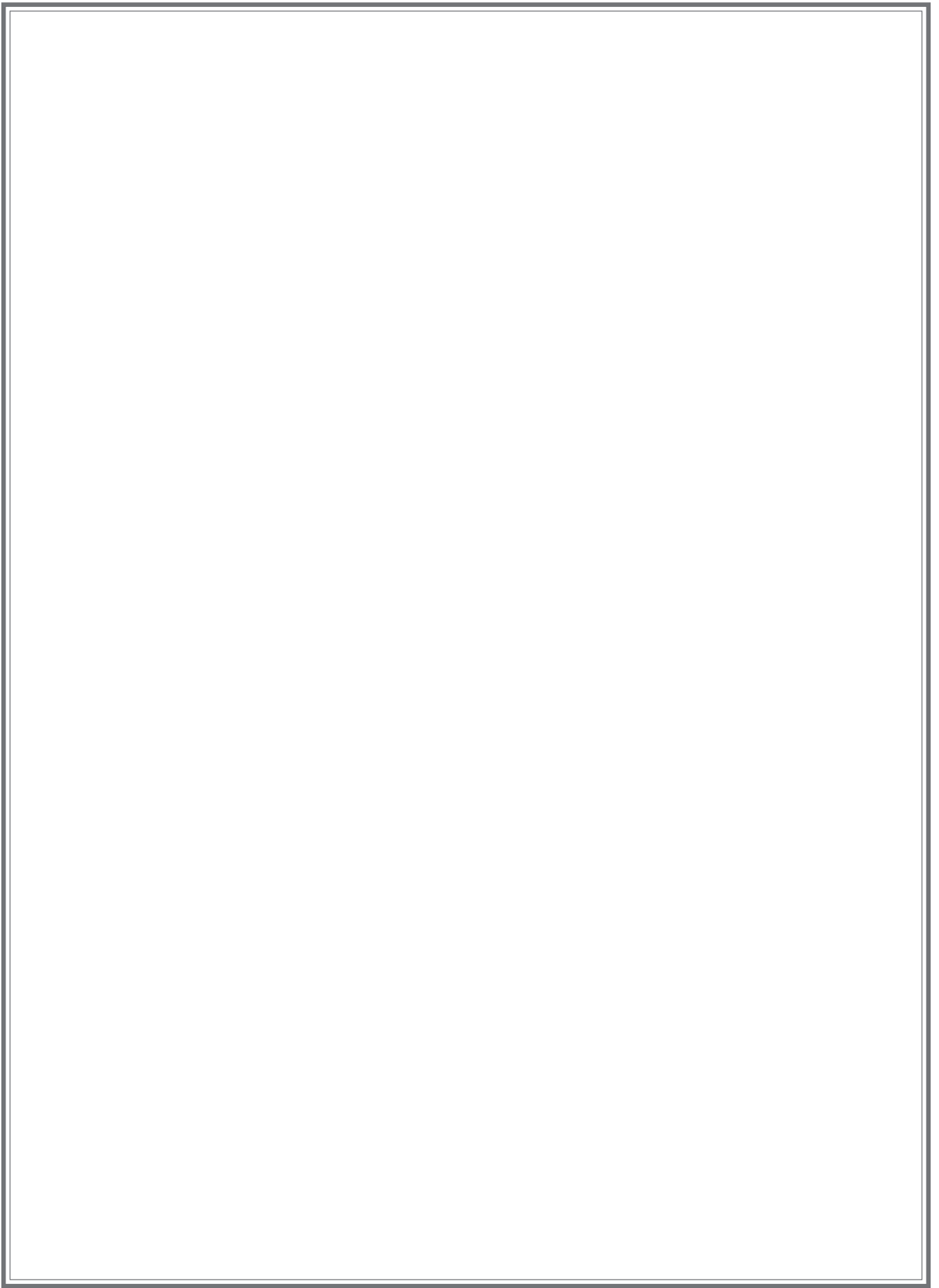


TABLE of CONTENTS

Masonry Saws

| | |
|--|--------------|
| TABLE OF CONTENTS | 3 |
| USER INFORMATION | 4-5 |
| Foreword | 4 |
| Service Data | 5 |
| Warranty | 6 |
| HEALTH & SAFETY | 7-9 |
| Safety | 7 |
| Safety Precautions | 8-9 |
| TECHNICAL DATA | 10-14 |
| Specifications | 10 |
| Electrical Power Supply Connection | 11 |
| Sound and Vibration Measurements | 11 |
| Torque Chart - Imperial | 12 |
| Torque Chart - Metric | 13 |
| Hardware Key | 14 |
| OPERATIONS | 15-16 |
| Introduction | 15 |
| Installation Instructions | 16 |
| Operating Instructions | 16 |
| MAINTENANCE | 17-23 |
| Important | 17 |
| Cleaning/Before Storing/Daily | 18 |
| Service Check List | 19 |
| Troubleshooting | 20-22 |
| Service Record | 23 |
| California Proposition 65 | IBC |

USER INFORMATION

Foreword

These instructions include:

- Safety regulations
- Operating instructions
- Maintenance instructions

These instructions have been prepared for operation on the construction site and for the maintenance engineer.

These instructions are intended to simplify operation of the machine and to avoid malfunctions through improper operation.

Observing the maintenance instructions will increase the reliability and service life of the machine when used on the construction site and reduce repair costs and downtimes.

Always keep these instructions at the place of use of the machine.

Only operate the machine as instructed and follow these instructions.

Observe the safety regulations as well as the guidelines of the civil engineering trade association. Observe safety rules for the operation of equipment and the pertinent regulations for the prevention of accidents.

Stone Construction Equipment, Inc. is not liable for the function of the machine when used in an improper manner and for other than the intended purpose.

Operating errors, improper maintenance and the use of incorrect operating materials are not covered by the warranty.

The above information does not extend the warranty and liability conditions of business of Stone Construction Equipment, Inc.

Please enter (data on machine type plate)

Machine Type: _____

Machine No.: _____

Engine type: _____

Engine No.: _____

Stone Construction Equipment, Inc.
P.O. Box 150, Honeoye, New York 14471
Phone: (800) 888-9926
Fax: (716) 229-2363

USER INFORMATION

Service Data

Model/Capacity _____

Purchase Date _____

Engine Make/No. _____

Battery Specification _____

| Service | Date |
|---------|------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

Oil Specifications & Quantity

Engine _____

Distributor

Limited Warranty

The Manufacturer warrants that products manufactured shall be free from defects in material and workmanship that develop under normal use for a period of 90 days for concrete vibrators and electric pumps, one year for Rhino®, Bulldog®, Wolfpac Rollers™, trowels, Stompers®, saws, forward plates, engine powered pumps, and 6 months for all other products from the date of shipment. The foregoing shall be the exclusive remedy of the buyer and the exclusive liability of the Manufacturer. Our warranty excludes normal replaceable wear items, i.e. gaskets, wear plates, seals, O-rings, V-belts, drive chains, clutches, etc. Any equipment, part or product which is furnished by the Manufacturer but manufactured by another, bears only the warranty given by such other manufacturer. (The Manufacturer extends the warranty period to "Lifetime" for the drum bearings and seals for the mortar mixers, and agrees to furnish, free of charge, the bearings and seals only upon receipt of the defective parts. The warranty is two years for eccentric bearings on the forward plate compactors, mortar and plaster mixer drums, trowel gearboxes and five years on the Bulldog trench roller eccentric bearings.) A Warranty Evaluation Form must accompany all defective parts. Warranty is voided by product abuse, alterations, and use of equipment in applications for which it was not intended, use of non-manufacturer parts, or failure to follow documented service instructions. The foregoing warranty is exclusive of all other warranties whether written or oral, expressed or implied. No warranty of merchantability or fitness for a particular purpose shall apply. The agents, dealer and employees of Manufacturer are not authorized to make modification to this warranty, or additional warranties binding on Manufacturer. Therefore, additional statements, whether oral or written, do not constitute warranty and should not be relied upon.

The Manufacturer's sole responsibility for any breach of the foregoing provision of this contract, with respect to any product or part not conforming to the Warranty or the description herein contained, is at its option (a) to repair, replace or refund such product or parts upon the prepaid return thereof to location designated specifically by the Manufacturer. Product returns not shipped prepaid or on an economical transportation basis will be refused (b) as an alternative to the foregoing modes of settlement - the Manufacturer's dealer to repair defective units with reimbursement for expenses, except labor, and be reviewed with the Manufacturer prior to repair. A Warranty Evaluation Form must accompany all warranty claims.

Except as set forth hereinabove and without limitation of the above, there are no warranties or other affirmations which extends beyond the description of the products and the fact hereof, or as to operational efficiency, product reliability or maintainability or compatibility with products furnished by others. In no event whether as a result of breach of contract or warranty or alleged negligence, shall the Manufacturer be liable for special or consequential damages including but not limited to: Loss of profits or revenues, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services or claims of customers.

No claim will be allowed for products lost or damaged in transit. Such claims should be filed with the carrier within fifteen days.

Effective April 1, 1998.



Stone Construction Equipment, Inc.
32 East Main Street, P. O. Box 150
Honeoye, NY 14471-0150

Phone: 1-800-888-9926 • 1-716-229-5141
Fax: 1-716-229-2363
www.stone-equip.com • e-mail: sceny@mcimail.com

SAFETY

These machines are designed to carry out the function of flat sawing material of the non-cohesive, bituminous and granular varieties.

If used correctly they will provide an effective and safe means of sawing and meet the appropriate performance standards.

It is essential that the driver/operator of the machine is adequately trained in its safe operation, be authorized to operate it, and have sufficient knowledge of the machine to ensure that it is in full working order, before being put to use.

HEALTH & SAFETY

Safety Precautions

Before using this equipment, study this entire manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized parts for service.

When warning decals are destroyed or missing, contact the Manufacturer immediately at 1-800-888-9926 for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.



This notation appears before warnings in the text. It means that the step which follows must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid any potential hazards encountered in the normal service procedures. We strongly recommend that the reader takes advantage of the information provided to prevent personal injury or injury to others.



USE COMMON SENSE WHEN HANDLING FUELS

Transport and handle fuel only when contained in approved safety container.

Do not smoke when refueling or during any other fuel handling operation.

Do not refuel while the engine is running or while it is still hot.

If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place.

Do not operate the equipment if fuel or oil leaks exist - repair immediately.

Never operate this equipment in an explosive atmosphere.



Ear protection required when operating this equipment.

HEALTH & SAFETY

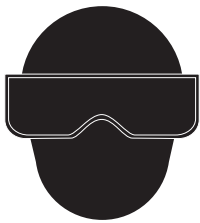
Safety Precautions



Avoid contact with hot exhaust systems and engines.
Allow engine to cool before performing any repairs.



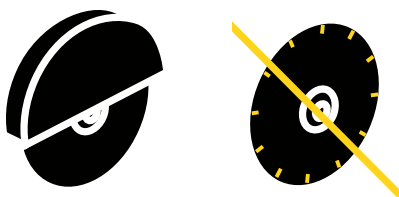
Never operate unit in a poorly ventilated or enclosed area.
Avoid prolonged breathing of exhaust gases.



Eye protection required when operating this equipment.



Head protection required when operating this equipment.



Never operate this equipment without all guards in place.

TECHNICAL DATA

Specifications

| Model | MS1 | MS2 |
|--------------------------------|---|--|
| Dimensions | | |
| Weight (kg) | 190 lbs (87.3) | 445 lbs (216) |
| Dimensions (LxWxH)† (cm) | 37" x 21" x 33" (94 x 54 x 84) | 48" x 25" x 71" (122 x 64 x 180) 62.5" high on electric |
| Blade Capacity (cm) | 14" (35,6) | 14", 20" (35,6 / 50.8) 20" standard |
| Cut Depth (cm) | 5" w/ 14" blade (12.7) | 5" w/ 14" blade (12.7) 8" w/ 20" blade (20.3) |
| Water Pan Dimensions (LxW) | 31" x 18" (78 x 46) | 40" x 24" (101 x 61) |
| Conveyor Table (L x W) | 10" x 19" (25.4 x 48) | 16.5" x 25" (42 x 64) |
| Table Height | 35" (89) (with leg kit) | 35" (89) |
| Operating System | | |
| Engines (kW) | 1 1/2 hp Baldor (1.2) 2 hp Baldor (1.5) 5.5 hp Honda (4.1) | 3 hp Baldor (2.3) - 230V only 5 hp Baldor (3.8) - 230V only 7.5 hp Robin (5.6) 8 hp Honda cyclone (5.9) 11 hp Honda (8.2) |
| Air Filter | Dry Element (Cyclone on Honda) | Dry Element (Cyclone on Honda) |
| Engine (Hz) | 3450 rpm (57.5) Electric 3600 rpm (60) Gas | 3450 rpm (57.5) Electric 3600 rpm (60) Gas |
| Voltage | 115 - 230 | 115 - 230 |
| Water System | Corrosion resistant electric water pump on electric models, Belt driven pump on gas models, Brass fittings | Corrosion resistant electric water pump on electric models, Belt driven pump on gas models, Brass fittings |
| Performance | | |
| Blade Shaft Bearings size (mm) | Greasable pillow block sealed 1" (25,4) | Greasable pillow block sealed 1" (25,4) |
| Blade Arbor (mm) | 1" (25,4) | 1" (25,4) |
| Arbor Height | 11.5" (29.2) | 24" (61) |
| Standard Features | Stay-level polyethelene blade guard with 210° of blade coverage, 45°/90° miter guide, cast aluminum conveyor cart, padded blade lever | Stay-level polyethelene blade guard with 210° of blade coverage, 45°/90° miter guide, cast aluminum conveyor cart, bi-directional forklift brackets, heavy-duty hand crank, padded blade lever |
| Options | 115V or 230V plugs, Folding leg kit, Foot pedal kit, Splash guard, Electric pump for gas models | 115V or 230V plugs, Splash guard, 14" or 20" blade guard. Electric pump for gas models |
| Warranty | 1 year limited | 1 year limited |

TECHNICAL DATA **Power Supply/Sound Chart**

Electrical Power Supply Connection

Connecting wires or extension cords should be as short as possible and one piece. In no case should the connecting wires or extension cords be longer than shown in the following chart.

| Motor | Voltage | 50" | 75" | 100" |
|----------|---------|--------|--------|--------|
| 1-1/2 HP | 115 | No. 10 | No. 10 | No. 8 |
| 1-1/2 HP | 230 | No. 14 | No. 14 | No. 14 |
| 2 HP | 115 | No. 10 | No. 8 | No. 6 |
| 2 HP | 230 | No. 12 | No. 12 | No. 12 |
| 3 HP | 230 | No. 10 | No. 10 | No. 10 |
| 5 HP | 230 | No. 8 | No. 8 | No. 8 |

Sound and Vibration Measurements

Sound Pressure Values as measured are per the following:

| Noise 1 | Model/Configuration | | | |
|--|---------------------|----------------|---------------------|----------------|
| | MS1 Electric 14" | MS1 Gas 14" | MS2 Electric 20" | MS2 Gas 20" |
| at operator's ear | 89dBA | 100dBA | 97dBA | 103dBA |
| 1.6 meters above floor 1.0 meter from surface of machine at 9 o'clock from operator | 85dBA | 96dBA | 98dBA | 104dBA |

RMS acceleration on the handle were measured per the following:

| | | | | |
|----------------------------|------|------|------|------|
| meter/sec ² RMS | 1.05 | 1.10 | 0.84 | 1.31 |
|----------------------------|------|------|------|------|

Sound and vibration values have been taken in accordance to the EEC machine regulation (edition 93/68/EEC)

Sound Pressure measurements were taken with Simpson model 886-2 type 2 meter, calibrated 2/21/97

Acceleration measurements were taken with Quest Tech model VI-100 meter, calibrated 4/17/96

Sound and vibration measurements were obtained with machine operating at maximum engine speed of 3450 RPM.

Units had blades mounted and measurements were taken out of cuts.

TECHNICAL DATA

Torque Chart - Imperial

| SAE GRADE 5 Coarse Thread, Zinc-Plated | | |
|---|----------|-------|
| SIZE | TORQUE | |
| | ft. lbs. | Nm |
| 1/4 - 20 (.250) | 6 | 8 |
| 5/16 - 18 (.3125) | 13 | 18 |
| 3/8 - 16 (.375) | 23 | 31 |
| 7/16 - 14 (.4375) | 37 | 50 |
| 1/2 - 13 (.500) | 57 | 77 |
| 9/16 - 12 (.5625) | 82 | 111 |
| 5/8 - 11 (.625) | 112 | 152 |
| 3/4 - 10 (.750) | 200 | 271 |
| 7/8 - 9 (.875) | 322 | 436.5 |
| 1 - 8 (1.000) | 483 | 655 |

| SAE GRADE 8 Coarse Thread, Zinc-Plated | | |
|---|----------|-----|
| SIZE | TORQUE | |
| | ft. lbs. | Nm |
| 1/4 - 20 (.250) | 9 | 12 |
| 5/16 - 18 (.3125) | 18 | 24 |
| 3/8 - 16 (.375) | 33 | 45 |
| 7/16 - 14 (.4375) | 52 | 70 |
| 1/2 - 13 (.500) | 80 | 108 |
| 9/16 - 12 (.5625) | 115 | 156 |
| 5/8 - 11 (.625) | 159 | 215 |
| 3/4 - 10 (.750) | 282 | 382 |
| 7/8 - 9 (.875) | 454 | 615 |
| 1 - 8 (1.000) | 682 | 925 |

| SAE GRADE 5 Fine Thread, Zinc-Plated | | |
|---|----------|-----|
| SIZE | TORQUE | |
| | ft. lbs. | Nm |
| 1/4 - 28 (.250) | 7 | 10 |
| 5/16 - 24 (.3125) | 14 | 19 |
| 3/8 - 24 (.375) | 26 | 35 |
| 7/16 - 20 (.4375) | 41 | 56 |
| 1/2 - 20 (.500) | 64 | 87 |
| 9/16 - 18 (.5625) | 91 | 123 |
| 5/8 - 18 (.625) | 128 | 173 |
| 3/4 - 16 (.750) | 223 | 302 |
| 7/8 - 14 (.875) | 355 | 481 |
| 1 - 12 (1.000) | 529 | 717 |
| 1 - 14 (1.000) | 541 | 733 |

| SAE GRADE 8 Fine Thread, Zinc-Plated | | |
|---|----------|------|
| SIZE | TORQUE | |
| | ft. lbs. | Nm |
| 1/4 - 28 (.250) | 10 | 14 |
| 5/16 - 24 (.3125) | 20 | 27 |
| 3/8 - 24 (.375) | 37 | 50 |
| 7/16 - 20 (.4375) | 58 | 79 |
| 1/2 - 20 (.500) | 90 | 122 |
| 9/16 - 18 (.5625) | 129 | 175 |
| 5/8 - 18 (.625) | 180 | 244 |
| 3/4 - 16 (.750) | 315 | 427 |
| 7/8 - 9 (.875) | 501 | 679 |
| 1 - 12 (1.000) | 746 | 1011 |
| 1 - 14 (1.000) | 764 | 1036 |

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TECHNICAL DATA

Torque Chart - Metric

Monthly, inspect all hardware on this equipment and engine/motor. Loose hardware can contribute to early component failure and poor performance. Use the torque chart below as a general guideline and keep all hardware tight.

Note: Some hardware is used to retain parts that have to move freely for correct operation of this unit. The hardware for these items should be snug enough to prevent excessive play, yet loose enough to allow the parts to pivot freely.

Property Class 8.8

ZINC-PLATED

| SIZE | Coarse Thread | | Fine Thread | |
|------|---------------|----------|-------------|----------|
| | Nm | ft. lbs. | Nm | ft. lbs. |
| M6 | 9.9 | 7 | 10 | 7 |
| M8 | 24 | 18 | 25 | 18 |
| M10 | 48 | 35 | 49 | 36 |
| M12 | 83 | 61 | 88 | 65 |
| M14 | 132 | 97 | 140 | 103 |
| M16 | 200 | 148 | 210 | 155 |
| M20 | 390 | 288 | 425 | 313 |
| M24 | 675 | 498 | 720 | 531 |

Property Class 10.9

ZINC-PLATED

| SIZE | Coarse Thread | | Fine Thread | |
|------|---------------|----------|-------------|----------|
| | Nm | ft. lbs. | Nm | ft. lbs. |
| M6 | 14 | 10 | 14 | 10 |
| M8 | 34 | 25 | 35 | 26 |
| M10 | 67 | 49 | 68 | 50 |
| M12 | 117 | 86 | 125 | 92 |
| M14 | 185 | 136 | 192 | 142 |
| M16 | 285 | 210 | 295 | 218 |
| M20 | 550 | 406 | 600 | 443 |
| M24 | 950 | 701 | 1000 | 738 |

Property Class 12.9

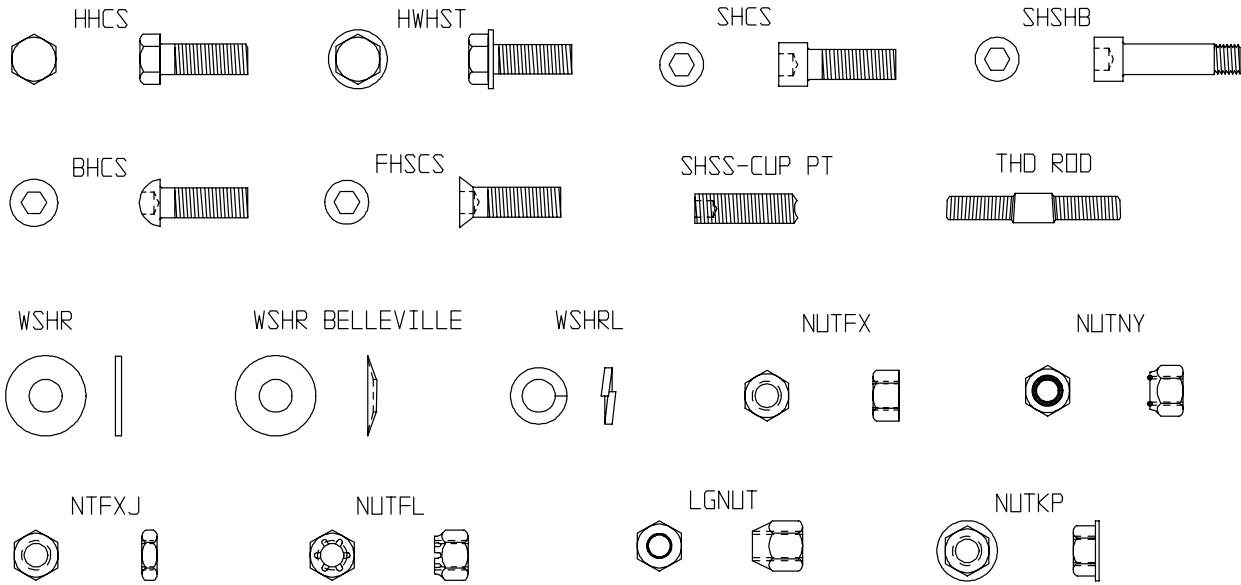
ZINC-PLATED

| SIZE | Coarse Thread | | Fine Thread | |
|------|---------------|----------|-------------|----------|
| | Nm | ft. lbs. | Nm | ft. lbs. |
| M6 | 16.5 | 12 | 16.5 | 12 |
| M8 | 40 | 30 | 42 | 31 |
| M10 | 81 | 60 | 82 | 60 |
| M12 | 140 | 103 | 150 | 111 |
| M14 | 220 | 162 | 235 | 173 |
| M16 | 340 | 251 | 350 | 258 |
| M20 | 660 | 487 | 720 | 531 |
| M24 | 1140 | 841 | 1200 | 885 |

Conversion Factor: 1 ft. lb. = 1.3558 Nm

TECHNICAL DATA

Hardware Key



VR005A

ZN = ZINC PLATED
BLK = BLACK OXIDE FINISH

OPERATIONS

Introduction

INTRODUCTION

Congratulations on your purchase of Stone's Saw Devil™! You've made an excellent choice! The Sawdevil has been specifically designed as the ideal machine for the professional contractor who is engaged in concrete and asphalt flat sawing.

Stone Saw Devils™ are used for the primary purpose of “flat” sawing. This type of sawing is described as “flat” because the pavement is cut somewhere close to a horizontal plane. It is the most common type of diamond blade cutting.

Concrete saws in the industry are available in a variety of types, sizes and styles. They range from manual or self propelled in horsepower from 7-72hp. It is possible to cut both concrete (green or cured, with or without rebar) or asphalt with a concrete saw.

The Stone Saw Devil™ line represents the most popular sizes and configurations on the market. You'll find manual or self propelled models powered by gasoline engines ranging from 7hp - 20hp capable of accepting blades of up to 18 inches in diameter. They are designed to cut horizontal slabs to depths of a maximum of 6 5/8 inches.

The Stone Masonry Saw Line includes the most popular configurations of saws for cutting block, pavers, brick and most all masonry products. They are available in portable and professional models from 1-1/2hp to 5hp electric and gas, and 8hp and 11hp gasoline block house professionals.

You will find a Stone Saw Devil™ to fit a wide variety of job applications.

Upon receipt of your Saw Devil™, **CAREFULLY CHECK FOR ANY FREIGHT DAMAGE.** Any damage should be immediately reported to the carrier and a claim registered.

The Saw Devil™ is manufactured to the strictest specifications and inspection procedures. If any material or manufacturing defects are found, return the tag on the machine with assembler's signature and your findings to the manufacturer. We want to know when a product is less than perfect. We also welcome any and all input on how the product may serve you better.

OPERATIONS

Installation/Operating Instructions

Installation Instructions

Remove the loose bolts in the cross tube. Raise the fitting bar and connecting link to the upright positions so that the bolt may be installed and tightened.

Before placing the cutting head on the frame, make sure that the cross bar rests are clean. Install (2) 12mm bolts and washers into the cross bar from behind and at an upward angle.

Fasten the “Quick Disconnect” fitting on the connecting link to the ball on the blade guard by pulling back on the spring loaded sleeve while it is placed on the ball, then release it. The length of the link has been factory set for the best blade position. Adjustment may be modified should other settings be desired by loosening the lock nuts at the front and rear and lengthening or shortening the length of the link. Attach linkage to tilt head with hardware provided, making sure linkages are free to move.

Operating Instructions

For wet cutting, fill the water reservoir pan to within one inch of the top. Be sure the water pump intake is fully covered by water at all times. Keep the pump intake free of accumulated sludge, and other foreign material.

According to the National Electric Code, no three wire 115v/230v electric motor can safely be wired to provide a 110v pigtail for accessories. Therefore, we ask that a properly grounded extension cord from a GFI (ground fault interrupt) outlet be provided to operate the electric water pump supplied with your saw. The pump plug must be kept out of contact with water both in the water pan and on the ground.

Stone single phase masonry saws are furnished with the correct approved NEMA configuration plug on the motor pigtail—the plug appropriate for the voltage to which the motor is set. It will be necessary to provide a matching NEMA configuration connector on the extension cord into which the pigtail from the motor is plugged. For example: a

3HP saw set for 230 volt operation can be supplied with a NEMA L6-20P plug on the pigtail. The extension cord will require an L620C plug to make the proper connection. Bear in mind, for the user to meet the National Electric Code, the plug on the extension cord should also be a NEMA number L6-20P, and the receptacle in the box into which this will be plugged should be a NEMA number L6-20.



ALWAYS MAKE SURE THAT THE SAW IS CONNECTED TO A PROPERLY GROUNDED ELECTRIC OUTLET.

Electric motors of any make can burn out completely when the voltage supply falls 10% below the voltage rating of the motor. Use proper heavy duty fuses in the circuit.

MAINTENANCE

Important Note

IMPORTANT

***THE PERSON ATTEMPTING ANY OF THE
FOLLOWING MAINTENANCE TASKS, MUST BE
AUTHORIZED TO DO SO AND HAVE READ AND
UNDERSTOOD ALL SECTIONS WITHIN THIS
MANUAL***

MAINTENANCE

Cleaning/Before Storing/Daily

Have your electrician check the voltage at the motor when the saw is cutting.

All Stone single phase masonry motors are equipped with manual reset overload. When the overload trips, turn the switch to the OFF position, allow the motor to cool for 5 to 10 minutes, then push the reset button. A click indicates reset.

CLEANING

At the end of each day's use, clean the sludge from the saw. Flush water through the pump and water hoses every night.

BEFORE STORING

Before the saw is stored in the warehouse to wait for the next job, use a wire brush to remove hard, caked sludge. Clean and thoroughly lubricate moving parts so when the saw is taken to the next job it is ready to operate at top efficiency.

Check the extension wire size per chart in the Technical Data section of this manual. Undersized wires will burn out expensive motor. Use 230 volts wherever possible.

If you have motor problems, contact your dealer (or Stone directly in an emergency) for the name of your nearest Authorized Service Dealer. If the motor is under warranty, sending it to a Non-Authorized Service Dealer voids the warranty.

DAILY

Keep the drive belt tight! Do not operate on low voltage! Full voltage is essential to economical operation. Always use 230 volts where available, with a heavy duty extension cord. Have an electrician check the incoming voltage at the saw motor.

Drive belts must be tight! Power goes from the motor to the arbor shaft—when belts are loose, power is lost. Replace worn belts without delay.

Replace belts in sets only.

The blade must fit the arbor snugly, especially diamond blades, otherwise pounding will occur, seriously damaging the blades. If the arbor shoulder is grooved where the diamond blade has bound in the cut while the shaft has continued to turn, the arbor must be replaced or the blade life will be severely shortened.

The blade flanges must be full diameter—minimum 4". Replace worn down flanges at once as undersized flanges shorten blade life and cause breakage. Flanges should be clean and free of nicks and burrs.

Check the conveyor cart condition regularly. Replace wheels and wood inserts frequently.

Be certain the cutting head is correctly aligned. Misalignment through handling damage or transporting the saw with the cutting head on the frame can seriously affect blade life. Check blade mounted, with square against cutting table, vertical and horizontal.

Replace noisy bearings at once! Worn bearings will very quickly destroy the blade.

Flush clean water through the pump and spray the assembly every night. This prolongs the pump and blade life.

Blade shaft bearing should be tight--no free play side-to-side or up-and-down.

Check oil levels, wiring, hoses, air filters, wheels and lubricate machine daily.

All guards in place and secure. All fasteners tight and secure.

Check pulley alignment using straight edge. All pulleys have (2) set screws and require thread locking loctite.

The slurry that accumulates in the bottom of the water reservoir pan is as abrasive as a cutting compound, and if it accumulates heavily will

MAINTENANCE

Service Check List

ALL SAWS

- All gas saws set Engine RPM at 3600 +0 / -100 (no load).
- Check blade clamp hub face run-out with indicator and magnetic chuck. Run-out not to exceed .015".
- Check belt tension:
 - MS1 Electric & Gas Belt deflection = .21 inches at 2.5 lbs. for used belt and 3.0 lbs for new belt.
 - MS2 Electric & Gas Belt deflection = .19 inches at 3.5 lbs. for used belt and 4.5 lbs for new belt.
- Grease all pillow blocks.
- All guards in place, all hardware tight.
- Apply Never-Seize to acme screw.
- Check cutting tables wheels are tight and rotating.
- Belts and pulleys in line.
- On gas units make sure kill switch is functional while running.
- Disconnect spark plug or unplug unit when servicing unit.

MAINTENANCE

Troubleshooting

PROBLEM

CAUSE

REMEDY

UNEVEN SEGMENT WEAR



- (In wet cutting) Insufficient water (usually on one side of blade).
- Equipment defects also can cause the segments to wear unevenly.
- Saw head is misaligned.

- Flush water system.
- Check flow to both sides of blade.
- Replace bad bearings, worn arbor shaft or misalignment to spindle.
- Check alignment for squareness, both vertically and horizontally, of the saw blade.

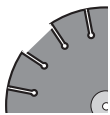
SEGMENT CRACKS



- Blade is too hard for material being cut.

- Use a blade with a softer bond/matrix.

SEGMENT LOSS



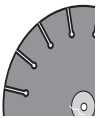

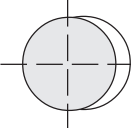


- Blade overheats because of lack of coolant (water or air).
- Core is worn from undercutting.
- Defective collars/flanges set blade out of alignment.
- Blade is too hard for material being cut.
- Blade is cutting out of round, causing a pounding motion.
- Improper blade tension.

- (Wet Cutting) Check water lines. Make sure flow is adequate on both sides of blade and there are no blockages. Use sufficient water to flush out the cut.
- (Dry Cutting) Run blade free of cut periodically to air cool.
- Clean collars/flanges or replace if they are under recommended diameter.
- Use proper blade specification for material being cut.
- Replace worn bearings; realign blade shaft or replace worn blade mounting arbor.
- When ordering blades match shaft speed of saw.
- Check spindle speed to ensure blade is running at correct RPM.
- Avoid twisting or turning blade in the cut.

MAINTENANCE

Troubleshooting

| PROBLEM | CAUSE | REMEDY |
|--|--|---|
| <p>BLADE WOBBLES</p>  | <ul style="list-style-type: none"> • Blade is on a damaged or worn saw. • Worn collar. • Blade runs at an incorrect speed. • Collar /flange diameters are not identical. • Blade is bent as a result of dropping or twisting. | <ul style="list-style-type: none"> • Check for bad bearings, bent shaft, or worn mounting arbor. • Check collars/flanges to make sure they are clean, flat and of correct diameter. • Set engine at proper rpm. • Use proper size blade collars/flanges. • DO NOT USE bent blade. Contact blade manufacturer. |
| <p>BLADE WILL NOT CUT</p>  | <ul style="list-style-type: none"> • Blade is too hard for material being cut. • Blade has become dull. • Blade does not cut material it was specified for. | <ul style="list-style-type: none"> • Select proper blade for material being cut. • Sharpen by cutting on softer abrasive material to expose diamonds. If continually sharpening, the blade is too hard for the material being cut. • Break-in on the material to be cut. If it does not dress itself, sharpen as you would a dull blade. |
| <p>CRACKS IN CORE</p>  | <ul style="list-style-type: none"> • Blade flutters in cut as a result of losing blade tension. • Blade specification is too hard for the material being cut. | <ul style="list-style-type: none"> • Tighten the blade shaft nut. • Make sure blade is running at proper speed and that drive pin is functioning properly. • Use a softer bond/matrix to eliminate stress. |
| <p>UNDERCUTTING THE CORE</p>  | <ul style="list-style-type: none"> • Abrasive wearing of the core faster than the segments. | <ul style="list-style-type: none"> • Use water to flush out fines generated during cutting • Use wear-retardant cores. |
| <p>ARBOR HOLE OUT-OF-ROUND</p>  | <ul style="list-style-type: none"> • Collars/flanges are not properly tightened, permitting blade to rotate or vibrate on the shaft. • Collars/flanges are worn or dirty. • Blade is not properly mounted. | <ul style="list-style-type: none"> • Make certain the blade is mounted on the proper shaft diameter. Tighten the shaft nut with a wrench to make certain that the blade is secure. • Clean collars/flanges, make sure they are not worn. • Tighten arbor nut. • Make sure the pin hole slides over drive pin. |

MAINTENANCE

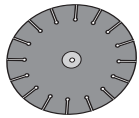
Troubleshooting

PROBLEM

CAUSE

REMEDY

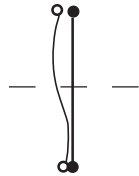
BLADE WORN OUT OF ROUND



- Shaft bearings are worn.
- Surges occur because engine is not properly tuned.
- Blade arbor hole is damaged from incorrectly mounting the blade.
- Bond/matrix is too hard for material.
- Blade is slipping, wearing one half of blade more than other.

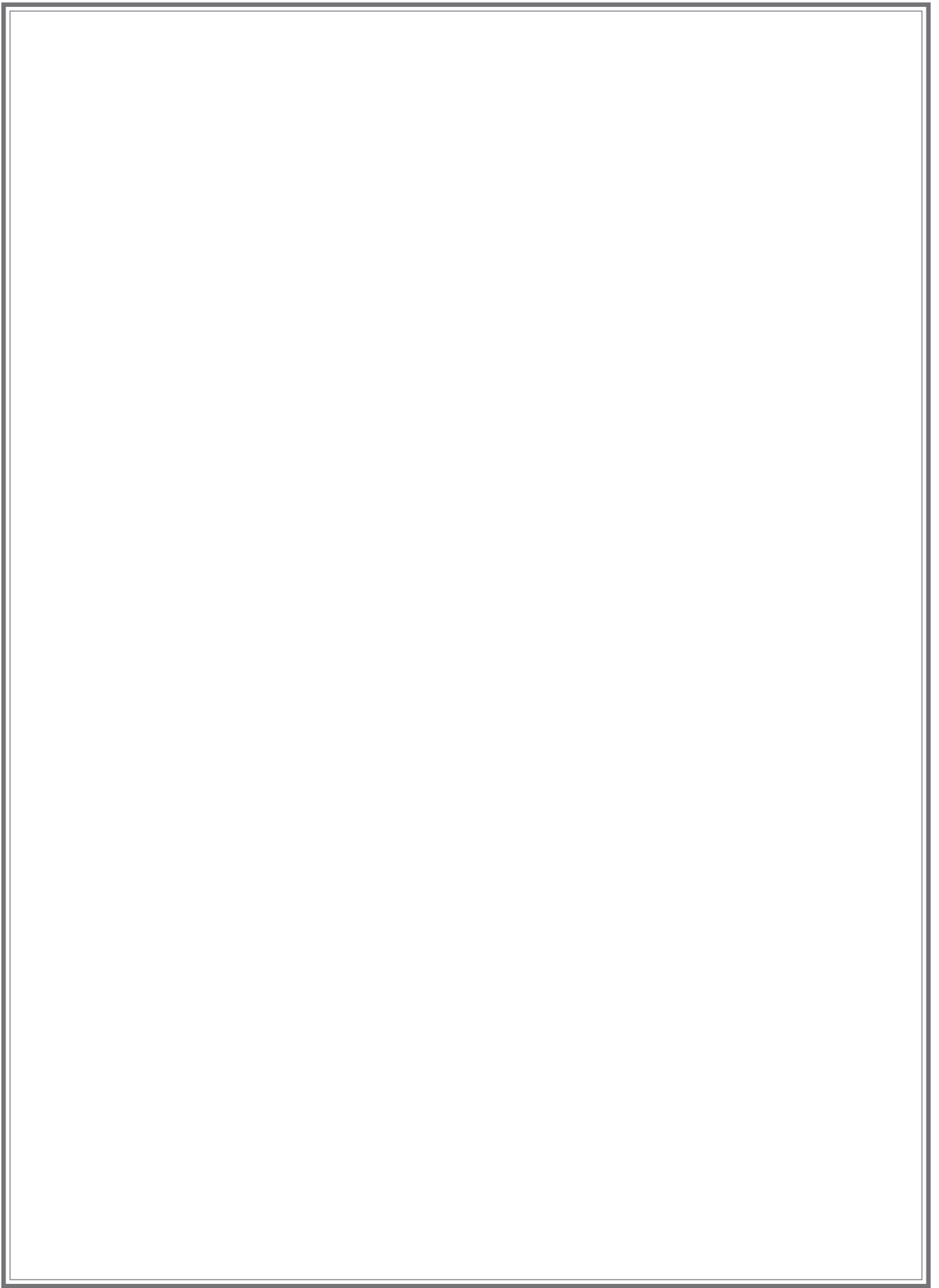
- Install new blade shaft bearings or blade shaft, as required.
- Tune engine according to manufacturer's manual.
- If core is worn or arbor hole damaged, DO NOT USE. Contact blade manufacturer.
- Use proper blade. Consult blade manufacturer.
- Replace worn shaft or mounting arbor bushing.
- Make certain that drive pin is functioning.
- Tighten spindle nut.

LOSS OF TENSION



- Core overheating.
- Core overheating as a result of blade spinning on arbor.
- Core overheating from rubbing the material being cut.
- Unequal pressure at blade clamping collars/flanges.
- Blade is too hard for the material being cut.

- Make certain blade RPM is correct.
- Check water flow, distribution and lines.
- Tighten the blade shaft nut.
- Make certain the drive pin is functioning.
- Properly align the saw to square cut.
- Collars/flanges must be identical in diameter and the recommended size.
- Use a softer bond/matrix to reduce stress.



CALIFORNIA PROPOSITION 65 WARNING: Sawing and engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



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