

TRIMINATOR®

OWNER'S MANUAL

V1

Congratulations on your selection of a Triminitor ShredMaster. We want to help you to get the best results from your new shredder and to operate it safely. This manual contains the information on how to do that; please read it carefully before you set up and use your machine. This manual is intended for all ShredMaster machines in different configurations. If your equipment does not contain a component please disregard information relating to the omitted component.

Included in this manual are safety tips, operating instructions, preventative maintenance and lubrication schedules, trouble shooting information , and a parts list. For information or questions that may not be found in this manual please contact our service department at

530-265-4277

 **NOTICE**

THIS OWNER'S MANUAL IS CONSIDERED A PERMANENT PART OF THE MACHINE AND SHOULD REMAIN WITH THE SHREDDER IF RE-SOLD. THE INFORMATION AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE THOSE THAT WERE IN EFFECT AT THE TIME OF APPROVAL FOR PRINTING. MOSMAN MACHINERY COMPANY, INC. RESERVES THE RIGHT, HOWEVER, TO DISCONTINUE OR CHANGE

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UNLOADING/UNPACKING

Exercise extreme caution at all times when handling equipment. NEVER allow any part of a person under the equipment or in any dangerous position.

- Using a lifting device with a minimum capacity of 3,000 pounds, remove the shredder from the carrier, and transport it to the installation site.

ELECTRICAL INSTALLATION

ATTENTION

All electrical installation and service must be accomplished by qualified electrician(s). National and local electrical codes and ordinances, including safety precautions, must be followed.

⚠ WARNING

LOCK OUT POWER IN OFF POSITION

1. All internal wiring has been factory installed and tested prior to shipping. Electrical installation consists of providing adequate machine power only.
2. Check building service to ensure the correct voltage is available and that those current requirements can be met according to nameplate located on the rear panel of the machine. Record the nameplate information in the space below.
3. Install receptacle to properly protect building's circuit. Select appropriate wire size and current protection to accommodate current requirements as shown on nameplate. Plug in power cable.
4. Clear all personnel from machine area. Ensure machine is clean and no tools, rags, or debris have been left on or near cutters or drive mechanism.
5. Turn building service drop power on. Check voltage at installed receptacle.
6. Turn on the machine and check for proper motor rotation. If running in reverse, unplug power cable. Check that power is OFF with voltage meter at panel. Remove any two power wires from the motor starter, reverse them, and reconnect.
7. Clear area, turn on power and recheck motor rotation. -Electrical installation is complete.
8. Replace all guards.

SAFETY WARNINGS



- Read and understand instruction manual and be aware of all warning stickers.
- Make sure that ALL guards, safety switches and access panels are in place at all times, **EXCEPT** when the power is locked off for maintenance work or cleaning.
- **ALWAYS** know where emergency stop buttons are located.
- **ALWAYS** know, or have quick access to, emergency phone numbers.
- **ALWAYS** ensure that all maintenance and operating personnel read and understand this manual, including those personnel working second or third shift.
- **ALWAYS** have a standard break-in time for a new operator A minimum of two hours suggested.
- **ALWAYS** wear safety glasses when operating shredder.
- **ALWAYS** “lock out” power at the disconnect when shredder is not in use, when servicing shredder, or when performing routine shredder maintenance including cleaning.
- **NEVER** operate this or any other machine while under the influence of drugs, alcohol or medications.
- **NEVER** wear loose fitting clothing, ties, or jewelry while in the vicinity of this shredder.
- **NEVER** allow long hair to be worn in the vicinity of the machine without use of a protective hair net.
- **NEVER** place any part of your body in or on any part of this machine while in operation.
- **NEVER** allow tools, rags, lunch pails, or debris to be placed on the input conveyor or on top of the machine.
- **NEVER** change machine direction without first allowing machine to come to a complete stop.
- **NEVER** allow other personnel within ten feet of this machine while in operation.
- **NEVER** remove guards, perform maintenance or clear jam-up debris without first locking out power disconnect or unplugging the machine.
- **NEVER** allow horseplay around machine.
- **NEVER** remove material from cutter heads while power is on.
- **NEVER** attempt to remove debris from input chute after material has begun to move toward cutter head.
- **NEVER** hold forward button in the depressed position.

START-UP PROCEDURE

PRE-START-UP PROCEDURE

- Familiarize yourself with all controls and button locations. Ensure that all guards and covers are in place.
- Ensure the area is clean.
- Check input conveyor for debris, discarded tools, etc.

START-UP

Plug power cable into installed receptacle. Depress momentarily the FORWARD pushbutton. Cutters will begin to rotate and the output conveyor will begin to run forward.

To stop machine at any time depress the red "EMERGENCY STOP" pushbutton.

Begin feeding material to be shredded. It is recommended that during the familiarizing period the operator should proceed with small amounts of media. After several hours experience the operator may wish to increase the amount of material being fed. The operator will soon be able to judge the efficiency of the operation and feed material accordingly. It is nearly inevitable that during this learning process the machine will jam. A jam condition will automatically change the rotation of the cutters to the reverse rotation for approximately two seconds. Then the cutters will come to rest for approximately two seconds, then forward rotation automatically begins again. This automatic un-jamming process will occur three times and if an additional jam occurs the machine will shut off automatically, and will then require operator to follow proper lock out procedures to clear the jam from the machine.

CLEARING A JAM

Should a jam occur, the machine will automatically go in the reverse direction for approximately two seconds, then after a brief pause the machine will automatically start in the forward direction. This forward and reverse automatic process will occur three times to clear the jam, if the machine remains jammed after the third cycle the machine will automatically turn itself off.

1. Ensure that all personnel are clear of both the input chute and the cutter head.
2. Momentarily depress the yellow Reverse pushbutton. This will cause the cutters to run backwards for as long as the Reverse pushbutton remains depressed.
3. Release the Reverse pushbutton. The machine will come to a stop. After the machine has completely stopped, press the forward button and try to shred material.
4. If machine jams again, reverse shredder, **Lock Out Power**, and manually remove offending material.
5. Re-start machine in the forward direction to resume operation.

WARNING

NEVER Hold the forward button in the depressed position, as damage to the machine and the electrical system could occur.

SHUT-DOWN PROCEDURE

1. Allow conveyors to clear all material before shut down if applicable.
2. Depress E-Stop pushbutton. Remove power cable from receptacle.
3. Clean any remaining debris from the machine and from the immediate area.

MAINTENANCE & LUBRICATION

WARNING

ALWAYS lock off power before cleaning, lubricating, maintaining, removal of any guard(s), and after shredding operation is complete.

WEEKLY - EVERY 40 HOURS OF OPERATION

- Inspect for any oil leaks around the spur gear oil bath or the gearbox reducers as applicable.
- Confirm that all guards are correctly installed.

MONTHLY - EVERY 160 HOURS OF OPERATION

- Grease all bearings using a high-temperature #2 lithium based grease, 1-2 pumps per bearing.
- Brush bearing grease on the spur gear teeth.
- Spray oil on the chain & check chain tension.
- Remove end shaft guards and check to ensure stack adjuster nuts are tight. Re-tighten if needed.
- Visually inspect cutters for damage.
- Confirm that all guards are correctly installed.

ANNUAL LUBRICATION

(Minimum of 200 hours of use, Maximum of 500hrs)

- Repeat steps from monthly lubrication.
- Drain oil from cycloidal reducer and refill with Shell Omala S2-GX synthetic industrial gear oil. Less than 1 gallon total will be needed (refer to Sumitomo manual in Appendix 1 for details).

LUBE SCHEDULE

ITEM	LUBE FREQUENCY	TYPE LUBE
Cycloidal Reducer	Drain and Refill Yearly, 200+Hrs	Shell Omala S2-GX Synthetic Industrial Gear Oil Less than 1 gallon total (Refer to Appendix 1)
Chain	Monthly	Monthly
Spur Gears	Monthly	Brush on Bearing Grease(Lithium)
Main Roller Bearings (4)	Weekly or every 20Hrs, whichever is less	High-temperature #2 Lithium based Grease 1-2 Pumps Per Bearing

CUTTER STACK ADJUSTMENT

WARNING

Confirm that machine is **Locked out** and **Tagged out** before starting any work on the machine.

Cutter Stack tightness is factory set and should be checked if any of the following conditions exist:

- Shred capacity drops noticeably.
- Cutter Head becomes abnormally hot.
- Unusual noise being generated from cutter head.
- Noticeably large gap between two cutters.

NOTICE

CUTTERS MUST BE AT ROOM TEMPERATURE WHEN MAKING ADJUSTMENTS. (BEST DONE WHEN THE SHREDDER HAS BEEN IDLE FOR SEVERAL HOURS)

1. Lock out machine power to prevent injury. **** Shut Down the Entire System and Lock Out the Power. Use proper lock Out and Tag Out Procedures **.**
2. Remove End Guards. Replace before starting equipment
3. Check the two-piece clamp collars and make sure they are clamped securely to the shafts. Securely tighten any that are loose.
4. A circular plate with bolts are used to evenly tighten each stack. Tighten each bolt a small amount at a time to ensure that even pressure is being applied to the stack.



TROUBLE-SHOOTING

⚠ WARNING

LOCK OUT POWER before performing any cleaning, oiling, maintenance, or trouble-shooting.

PROBLEM	POSSIBLE CAUSE	REMEDY
Machine will not turn off using STOP buttons.	<p>Defective STOP button.</p> <p>Contacts burned together in reversing contactor.</p>	<p>Check continuity (N.C.) If bad, replace.</p> <p>Check each leg of forward side of contactor for continuity. There should be no continuity. If there is, consult factory for replacement part.</p>
Machine will not run in forward or reverse.	<p>If power light is illuminated, proceed to possible cause #7.</p> <ol style="list-style-type: none"> 1. No power. 2. Key switch off. 3. Fuse blown in disconnect. 4. Overload tripped in panel. 5. Control transformer fuse blown. 6. STOP button stuck "in". 7. Loose wire in panel. 8. Defective contact block on STOP button. 	<p>Check power supply. Turn on.</p> <p>Remove each fuse and check for continuity. If bad, replace.</p> <p>Reset.</p> <p>Remove fuse and check for continuity. If bad, replace.</p> <p>Check buttons.</p> <p>Check terminal strip for disconnected or loose wires. Reconnect and tighten loose wires to proper location on strip.</p> <p>Check block for continuity. If bad, replace.</p>

TROUBLE-SHOOTING (CONTINUED)

⚠ WARNING

LOCK OUT POWER before performing any cleaning, oiling, maintenance, or trouble-shooting.

PROBLEM	POSSIBLE CAUSE	REMEDY
Motor hums or buzzes, but will not turn in either forward or reverse.	<p>One leg of the 3 phase power is dead (single phasing).</p> <p>Contacts burned in contactor and not making a connection on one leg.</p> <p>Defective motor.</p>	<p>Remove each fuse. Check for continuity in the power supply and disconnect.</p> <p>Consult factory for replacement contactor.</p> <p>Consult factory for replacement motor.</p>
Overload tripping.	<p>Low voltage.</p> <p>Current relay set too high.</p> <p>Motor overheating.</p> <p>Defective motor.</p>	<p>Check voltage.</p> <p>Consult factory.</p> <p>Check motor cooling fan for objects obstructing air flow.</p> <p>Conduct amperage test. Consult factory for replacement motor.</p>
Machine will NOT run in FORWARD but will run in reverse.	<p>Defective forward button.</p> <p>Disconnected wire on forward button.</p> <p>Disconnected wire on current relay.</p> <p>Current relay stuck open.</p>	<p>Check contact block for continuity. If bad, replace.</p> <p>Check and reconnect.</p> <p>Check and reconnect.</p> <p>Clean relay. Free up center spool. Check continuity. If bad, consult factory for replacement relay.</p>

TROUBLE-SHOOTING (CONTINUED)

⚠ WARNING

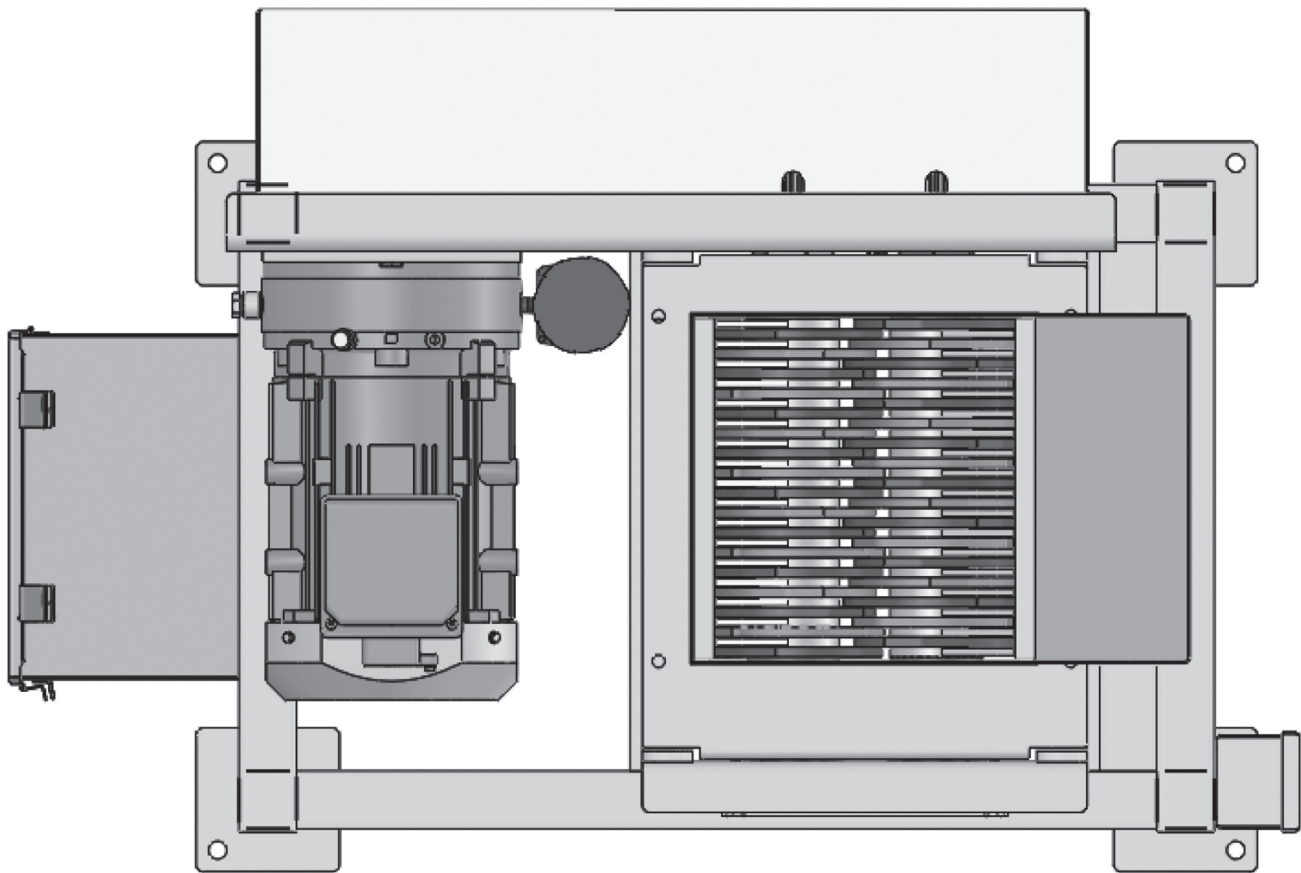
LOCK OUT POWER before performing any cleaning, oiling, maintenance, or trouble-shooting.

PROBLEM	POSSIBLE CAUSE	REMEDY
Machine will NOT run in REVERSE but will run in forward.	Defective reverse button. Disconnected wire on reverse button. Defective coil in reverse side of contactor.	Check for continuity. If bad, replace.
Shredding capacity is low.	Cutters are dull with rounded edges. Low voltage. Current relay set too low. Cutter Stack is Loose	New Sharp Cutters are needed. Check voltage at power supply. Consult factory before making any adjustments. Tighten Stackpusher Bolts

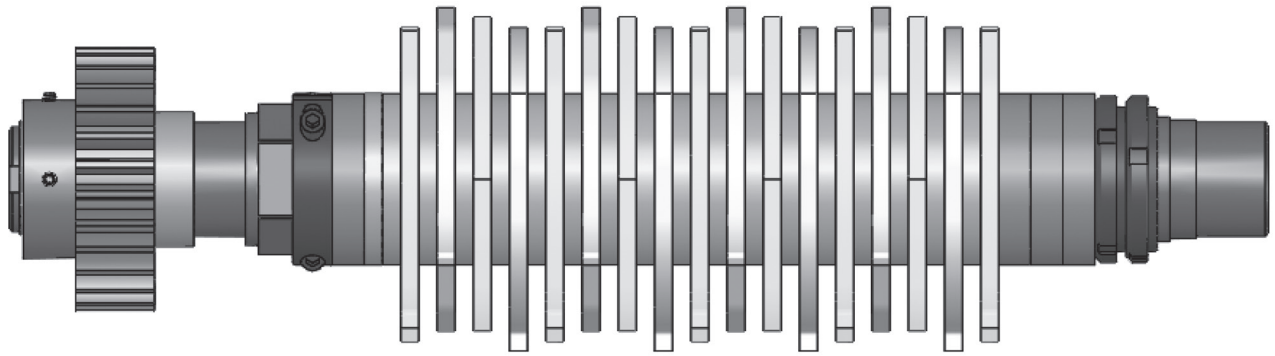
GREASE FITTINGS

- Ball Bearing Grease Fitting Locations (4 Grease Fittings)
- Grease Every week – 1 to 2 Pumps of Grease (See Lube Schedule pg.7)
- **Appendix 1 at the end of this manual for oil quantities and oil type.**

MACHINE ASSEMBLY



CUTTER HEAD ASSEMBLY



CONTROL PANEL LAYOUT



LIMITED WARRANTY

TRIMINATOR EQUIPMENT

This warranty is limited to the Trinator Trimming Machine distributed by Mosman Machinery Company, Inc., Nevada City, California 95959. The following warranty applies to all Trinator products purchased directly or from retail outlets after January 1, 2013.

LENGTH OF WARRANTY

All Trinator products are covered under this warranty for a length of 24 months from the date of original purchase.

TO QUALIFY FOR THIS WARRANTY:

The product must be purchased in the United States, directly from Mosman Machinery Company, Inc. or from a dealer authorized by Mosman Machinery Company, Inc. to sell those products. This warranty applies to the first retail purchaser during the applicable warranty time period.

WHAT WILL BE REPAIRED OR REPLACED UNDER WARRANTY:

Mosman Machinery Company, Inc. will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use and proper maintenance as prescribed in this Manual during the applicable warranty time period. Warranty repairs and replacements will be made without charge for parts or labor. Any part replaced under warranty becomes the property of Mosman Machinery Company, Inc. All new parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

TO OBTAIN WARRANTY SERVICE:

You must call Trinator/Mosman Machinery Company, Inc. to discuss the warranty issue.

Phone: 530.265.4277

Following the qualifying phone conversation Mosman Machinery Company, Inc. may direct you to do one of the following:

At your expense, take the Trinator product, part to be replaced, or the equipment on which the part to be replaced is installed, and a proof of purchase to the Trinator dealer from whom you originally purchased the product, during the dealer's normal business hours.

Alternatively, Mosman Machinery Company, Inc. may direct you in writing (email) to deliver your product to a different location at a distance less than or equal to the distance from your current location to the dealer from which you originally purchased the product.

LIMITED WARRANTY (CONTINUED)

EXCLUSIONS FROM WARRANTY COVERAGE

The following items and conditions are excluded from warranty coverage:

1. Any damage or deterioration resulting from the following:
 - Neglect of the periodic maintenance as specified in this manual.
 - Improper repair or maintenance.
 - The use of non-genuine Trimator parts and/or products other than those approved by Mosman Machinery Company, Inc.
 - Exposure of the product to chemical agents, sea water, sea breeze, salt or other damaging environmental phenomena.
 - Collision, deterioration, neglect, unauthorized alteration, misuse, incorporation or use of unsuitable attachments, products or parts.
 - Natural wear and tear (natural fading of painted or plated surfaces, sheet peeling and other natural deterioration).
2. Consumable parts: Mosman Machinery Company, Inc. does not warrant parts that deteriorate due to natural wear and tear.
3. Cleaning, adjustment, and normal periodic maintenance work (lubrication, blade sharpening, belt adjustments).
4. Any product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.

DISCLAIMER OF CONSEQUENTIAL DAMAGE AND LIMITATION OF IMPLIED WARRANTIES:

Mosman Machinery Company, Inc. disclaims any responsibility for loss of time or use of the product, transportation costs, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written limited warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

