

OWNERS MANUAL

AMS DS-10 SHREDDER

Thank you for purchasing an Ameri-Shred Shredder. This model is made of the finest materials available and is manufactured in the United States by skilled craftsmen. The shredder has been designed with the operator in mind for both ease of operation and maintenance. Ameri-Shred requests that each operator read and familiarize themselves with this manual before operating the machine.

The AMS DS-10 Series Primary Shredder is designed by Ameri-Shred Engineers to shred a variety of media into unusable particles and to ensure that any information they may contain is rendered useless. Ameri-Shred believes in using the highest quality components in each of our industrial shredders.

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

888-270-6879.

NOTICE: The information contained within this manual is correct at time of printing, but due to the continuing development of products, changes in specifications are inevitable. Ameri-Shred reserves the right to implement such changes without prior notice.

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UNLOADING/UNPACKING

Your new Ameri-Shred shredder has been secured to a pallet for shipping. Please inspect equipment immediately for shipping damage.

- Using a lift truck with a minimum capacity of 5000 pounds, remove the machine from the carrier and transport to operation site. Remove pallet and discard responsibly.
- Remove all guards (see fig. 2, page 18) and inspect interior of machine for shipping damage. Check oil level in reducer. Add oil if necessary. See lubrication section on page 13.
- After inspection, reinstall all guards.

ELECTRICAL INSTALLATION

All electrical installation and service must be accomplished by a qualified electrician. Follow all national and local electrical codes and ordinances.

"WARNING"

LOCK POWER IN OFF POSITIION

All internal wiring has been factory installed and tested prior to shipping. Electrical installation consists of providing adequate machine power only.

Check building service to ensure correct voltage is available and those current requirements can be met (according to nameplate (serial number), see page 14).

Install receptacle (provided) to properly protect building circuit. Select appropriate wire size and current protection to accommodate current requirements as shown on nameplate. Plug in power cable.

Clear all personnel from machine area. Ensure machine is clean and no tools, rags, or debris have been left on conveyor belt or near cutters or drive mechanism.

Turn building service drop power on. Check voltage at installed receptacle.

Ensure area is clear. Turn key switch on. Jog reverse. Check for proper motor rotation. If rotation is wrong, unplug power cable. Check that power is off with voltage meter at panel. Remove any two power wires from the motor starter, reverse and reconnect.

Clear area, turn on power and recheck rotation.

Electrical installation is complete.

Replace all guards.

SAFETY WARNINGS

1. Read and understand instruction manual and be aware of all warning stickers.
2. Make sure that ALL guards and access panels are in place at all times, **EXCEPT** when the power is locked off for maintenance work or cleaning.
3. **ALWAYS** know where emergency stop buttons are located.
4. **ALWAYS** know, or have quick access to, emergency phone numbers.
5. **ALWAYS** ensure that all maintenance and operating personnel read and understand this manual, including those personnel working second or third shift.
6. **ALWAYS** have a standard break-in time for a new operator A minimum of two hours suggested.
7. **ALWAYS** wear safety glasses when operating shredder.
8. **ALWAYS** "lock out" power at the disconnect when shredder is not in use, when servicing shredder, or when performing routine shredder maintenance including cleaning.
9. **NEVER** operate this or any other machine while under the influence of drugs, alcohol or medications.
10. **NEVER** wear loose fitting clothing, ties, or jewelry while in the vicinity of this shredder.
11. **NEVER** allow long hair to be worn in the vicinity of the machine without use of a protective hair net.

12. **NEVER** place any part of your body in or on any part of this machine while in operation.
13. **NEVER** allow tools, rags, lunch pails, or debris to be placed on the input conveyor or on top of the machine.
14. **NEVER** change machine direction without first allowing machine to come to a complete stop.
15. **NEVER** allow other personnel within ten feet of this machine while in operation.
16. **NEVER** remove guards, perform maintenance or clear jam-up debris without first locking out power disconnect.
17. **NEVER** allow horseplay around machine.
18. **NEVER** remove paper from cutter heads while power is on.
19. **NEVER** attempt to remove debris from input chute after material has begun to move toward cutter head.
20. **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

Have an authorized electrician connect power to the rotary disconnect in the main shredder panel. Check in feed hopper to make sure there is no material present. Turn key switch on, the "POWER ON" Light will illuminate. Depress momentarily the REVERSE BUTTON and check the rotation of the shafts, the shafts will need to operate in opposite directions of each other. If the direction is wrong, reverse two of the incoming power wires to change motor rotation.

Once rotation is correct momentarily depress "MASTER START" the machine will start in reverse and run for approximately 2 seconds, there will then be a pause of about 2 seconds and the machine will run forward.

To stop machine at any time depress the red "SHREDDER STOP" pushbutton. For emergency situations the Stop pushbutton may be depressed at any time. For normal stop situations, wait for input chute to empty itself and the output conveyor to discharge all shredded material before depressing Stop button.

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. Ensure that all personnel are clear of both the input chute and the cutter head.

Momentarily depress the yellow Reverse pushbutton. This will cause the cutters to run backwards for as long as the Reverse pushbutton remains depressed.

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.

If machine jams again, reverse shredder, **Lock Out Power**, and manually remove offending material.

Re-start machine in the forward direction to resume operation.

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

NOTE:

This machine has been engineered to shred many different types of media. If you are concerned about the ability of this machine to shred a specific media, please consult the manufacturer before shredding.

SHUT-DOWN PROCEDURE

Allow input chute and output conveyor to clear all material before shut down.

Depress red Stop pushbutton. Remove power cable from receptacle.

Clean any remaining debris from the machine and from the immediate area.

MAINTENANCE

Cleaning

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

Daily Cleaning (After each 8 hours of operation).

- Remove debris and any magnets that have built up on cutters and combers (compressed air (maximum 40 PSI) or vacuum may be used).
- Visually inspect cutters for damage.
- Replace all guards.

Weekly cleaning (After each 40 hours of operation).

- Repeat all daily cleaning steps.
- Remove side guards and end guards
- Remove debris buildup from base.
- Wipe entire machine clean being careful to observe any evidence of oil leaks. Should leakage be observed, request the attention of the appropriate maintenance personnel.
- Check for loose hardware on the reducer collars.
- Remove all tools, rags, solvents from machine.
- Replace all guards.

LUBRICATION

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

Daily lubrication (After 8 hours of operation).

- Grease main Bearings (see Lube Schedule page 13).
- Replace all guards if removed
- Check site gauge on oil bath and gear reducers to ensure proper oil levels.

Weekly lubrication (After each 40 hours of operation).

- Repeat steps from daily lubrication.
- Remove shaft guard and check to ensure stack adjuster nuts are tight.
- Replace all guards.

Monthly lubrication (After each 160 hours of operation).

- Repeat steps from weekly lubrication.
- Remove guards
- Check reducer oil level. See Reducer manual at end of this manual for specifications. DO NOT OVERFILL.
- Grease main bearings using a multi-purpose lithium based grease (see Lube schedule on page 14).
- Replace all guards.

Annual lubrication (After 2080 hours of operation).

- Repeat steps from monthly lubrication.
- Drain oil from reducers (see reducer manual at the end of this manual for details).

- Clean magnetic drain plug.
- Replace drain plug and refill to proper level using a high grade petroleum base, rust and oxidation inhibited gear oil as specified in reducer manual.
- Drain oil from spur gear oil bath and refill with new 85W 140 oil.

CAUTION:

Too much oil will cause over heating, and too little oil will result in gear failure. Check oil level monthly. Also, under extreme operating conditions, such as rapid rise or fall of temperatures, dust, dirt, chemical particles, chemical fumes, or oil temperatures above 200 degrees F., the oil should be changed every one to three months depending on the severity of conditions.

LUBE SCHEDULE

ITEM	LUBE FREQUENCY	TYPE LUBE
Reducer	Check Weekly Drain and Refill Yearly (2000 Hrs)	See Attached reducer manual
Main Bearings	Every 8 Hours	Multipurpose Grease 7-10 Pumps Per Bearing
Spur Gear Oil Bath	Check Weekly Drain and Refill Yearly (2000 Hrs.)	85W 140 Gear Oil

CUTTER HEAD ADJUSTMENT

***Make sure machine is locked out before checking cutter clearance.**

Ameri-Shred recommends thoroughly cleaning the cutter head and ensuring that cutters do not move freely on the shafts.

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

- Shred capacity drops noticeably
- Media is passing through cutters without being completely shredded
- Cutter Head becomes extremely hot
- Abnormal noise being generated from cutter head
- Noticeable large gap between two cutters.

NOTICE: CUTTER HEAD ADJUSTMENT MUST BE MADE ON A COLD CUTTER HEAD!

- Lock out machine power to prevent injury
- Remove Rear Guard
- Clean and oil the cutter head ensuring that there are no obstructions
- Check the two piece shaft collars and make sure they are clamped securely to the shafts.
- A circular plate with six 3/8-24 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.
- Once the stack is tight, replace all guards and covers.

SYSTEM LAYOUT

NAMEPLATE

MODEL NO. AMS DS-10		SINGLE 10 HP
SERIAL NO.		3 PHASE
230/460 VOLT	60 CYCLE A.C.	AMPS

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.	Defective stop button. Contacts burned together in reversing contactor.	Check continuity (N.C.) If bad, replace. Check each leg of forward side of contactor for continuity. There should be no continuity. If there is, consult factory for replacement part.
Machine will not run in forward or reverse.	If power light is illuminated, proceed to possible cause seven. 1) No power. 2) Key switch off. 3) Fuse blown in disconnect. 4) Overload tripped in panel.	Check power supply. Turn on. Remove each fuse and check for continuity. If bad, replace. Reset.

Trouble Shooting (continued)

PROBLEM	POSSIBLE CAUSE	REMEDY
<p>Machine will not run in forward or reverse. (continued)</p>	<p>5) Control transformer fuse blown.</p> <p>6) Stop button stuck "in".</p> <p>7) Loose wire in panel.</p> <p>8) Defective contact block on stop button.</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>
<p>Motor hums or buzzes, but will not turn in either forward or reverse.</p>	<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>
<p>Overload tripping.</p>	<p>Low voltage.</p> <p>Current relay set too high.</p>	<p>Check voltage.</p> <p>Consult factory.</p>

Trouble Shooting (continued)

PROBLEM	POSSIBLE CAUSE	REMEDY
Overload tripping. (continued)	<p>Motor overheating.</p> <p>Dirty or un-lubricated cutter head.</p> <p>Defective motor.</p>	<p>Check motor cooling fan for objects obstructing air flow.</p> <p>Clean and lube.</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>
Machine will not run in reverse but will run in forward.	<p>Defective reverse button.</p>	<p>Check for continuity. If bad, replace.</p>

Trouble Shooting (continued)

PROBLEM	POSSIBLE CAUSE	REMEDY
Machine will not run in reverse but will run in forward. (continued)	Disconnected wire on reverse button.	Check and reconnect.
	Defective coil in reverse side of contactor.	Consult factory for replacement coil.
Shredding capacity is low.	Un-lubricated cutter head.	Clean and oil cutter head.
	Low voltage.	Check voltage at power supply.
	Current relay set too low.	Consult factory before making any adjustments.
	Cutter Stack is Loose	Tighten Stack Bolts

OIL SIGHTS AND GREASE FITTINGS

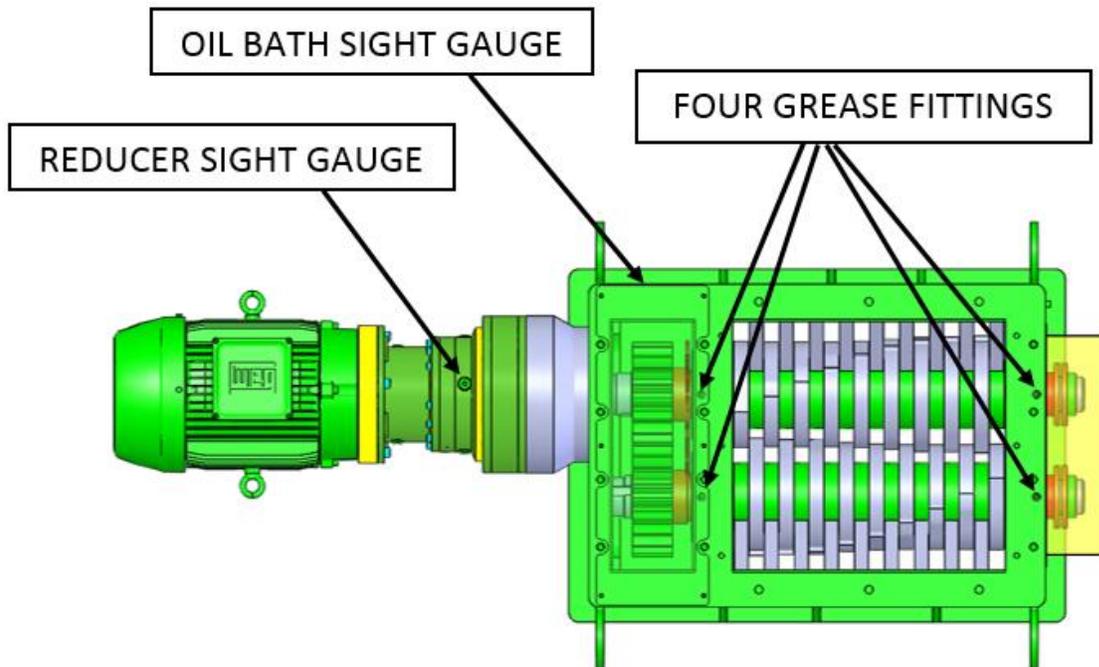
Roller Bearing Grease Fitting Locations (4 Grease Fittings)

Grease Everyday – 7-10 Pumps of Grease (See Lube Schedule pg.11)

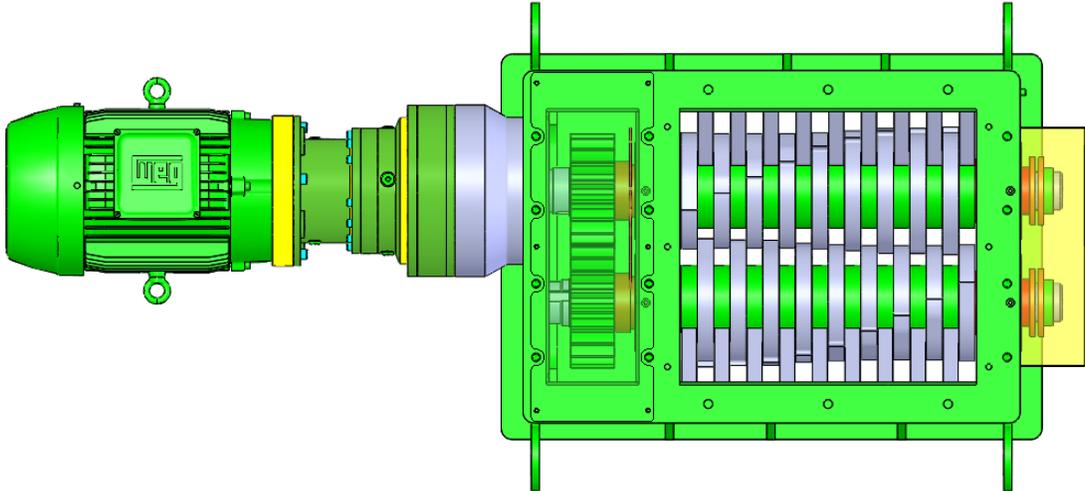
Check Sight Gauge on Spur Gear Oil Bath and Both Gear Reducers Daily.
Fill or Replace if Needed. (See Lube Schedule pg.11)

Reducer Breather/ Fill Plug – Consult

Appendix 2 at the end of this manual for oil quantities and oil type.



MACHINE ASSEMBLY



CUTTER HEAD ASSEMBLY

