

# COMPOSTER OWNER'S MANUAL

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## MODEL CT5

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2320 SE Ag-Bag Lane \* Warrenton, OR 97146  
1-800-334-7432 \* (503) 861-1644  
Fax: (503) 861-2527  
[www.silage@ag-bag.com](mailto:www.silage@ag-bag.com)

# Important

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Please complete the Delivery and Service/Warranty Record and mail the original to Ag-Bag® International, Ltd. Failure to do so may affect your warranty. The Owner's Manual contains safety instructions and general operating procedures. Please insure the purchaser thoroughly understands the information in this manual.

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# **BE A SAFE OPERATOR**

**BY THINKING - BEFORE ACTING**

**AND**

**BY READING YOUR OPERATORS MANUAL**

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## **AVOID ACCIDENTS**

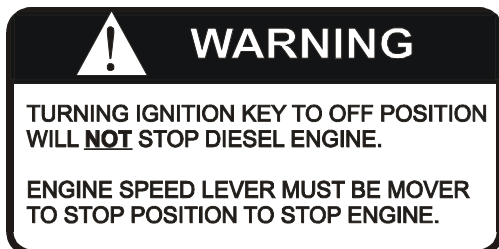
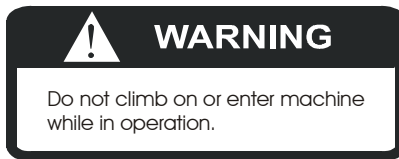
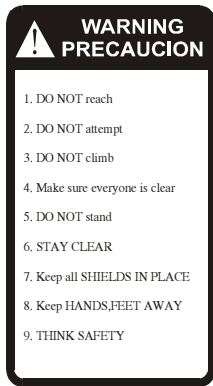
Most accidents, whether they occur in industry,  
on the farm,  
at home or on the highway,  
are caused by the failure of some individual to follow  
simple and fundamental safety rules or precautions. For  
this reason most accidents can be  
prevented by recognizing the real cause and doing  
something  
about it before the accident occurs.

Regardless of the care used in the design and  
construction of  
any type of equipment, there are many conditions that  
cannot be completely safeguarded against without  
interfering  
with reasonable accessibility and efficient operation.

**A CAREFUL OPERATOR IS THE BEST  
INSURANCE  
AGAINST AN ACCIDENT.**

**THE COMPLETE OBSERVANCE OF ONE SIMPLE  
RULE  
WOULD PREVENT MANY THOUSAND  
SERIOUS INJURIES EACH YEAR:**

**STOP MACHINE AND TURN OFF ENGINE TO  
ADJUST, LUBRICATE, OR SERVICE.**



## Warning Decals

The following list of warning and caution decals may be posted on your Ag-Bagger®. Always remember to think safety and use caution in the entire operating area.

- Keep shields in place.
- Do not reach or place any part of your body inside the hopper.
- Do not attempt to service, remove or unclog any material while the Ag-Bagger® is in operation.
- Do not climb or ride on the Ag-Bagger® during operation or transport.
- Make sure everyone is clear of the Ag-Bagger® before engaging the power takeoff (PTO). Keep children away at all times.
- Stay clear of hoses under pressure.
- Keep hands, feet and clothing away from intake area and all other moving parts of the Ag-Bagger®.

## Shields/Guards

Always keep shields/guards properly in place while operating the Ag-Bagger®. Replace any damaged or missing shields/guards prior to operation.

## Diesel Engine

Turn the diesel engine off by moving the speed lever to the stop position. Throttle all the way to the right. Key other turns off charging system.



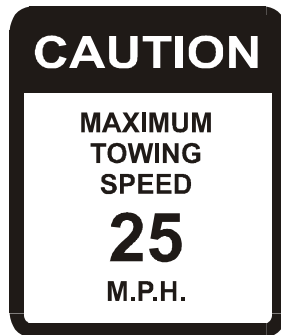
## Noise

Long-term exposure to loud noise can impair and cause loss of hearing. Use hearing protection.



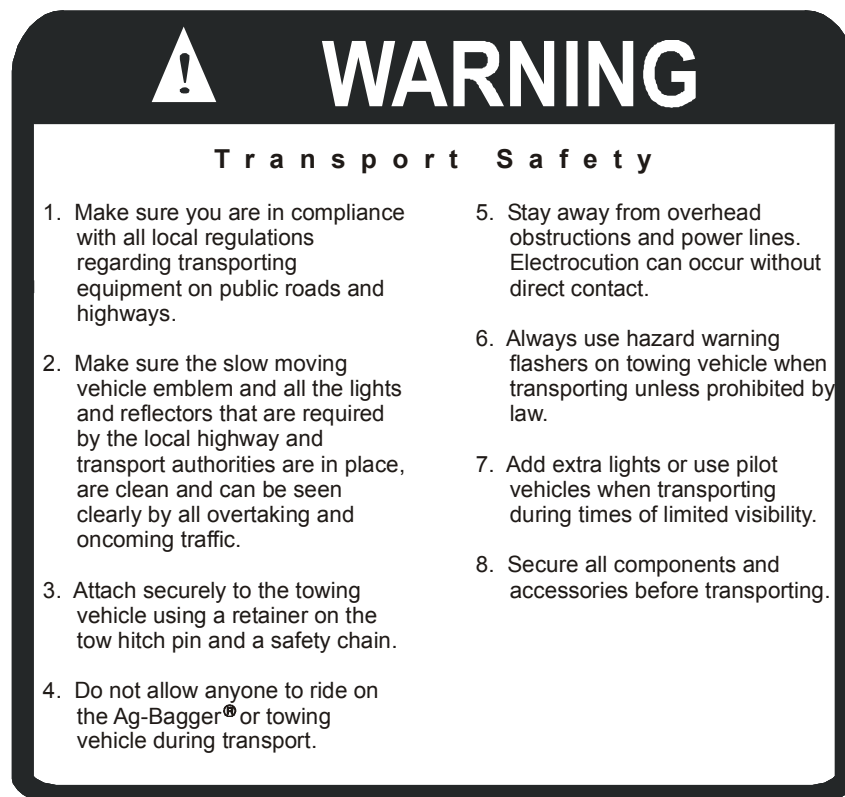
## Servicing the Ag-Bagger®

Do not attempt to perform service or maintenance to the Ag-Bagger® unless all moving parts have stopped.



## Towing

Maximum towing speed is 25 m.p.h. Be sure the wheels and hitch are in the transport position (see the Procedures section of this manual). Always check lug nuts prior to towing.



# PRE-OPERATION CHECKLIST

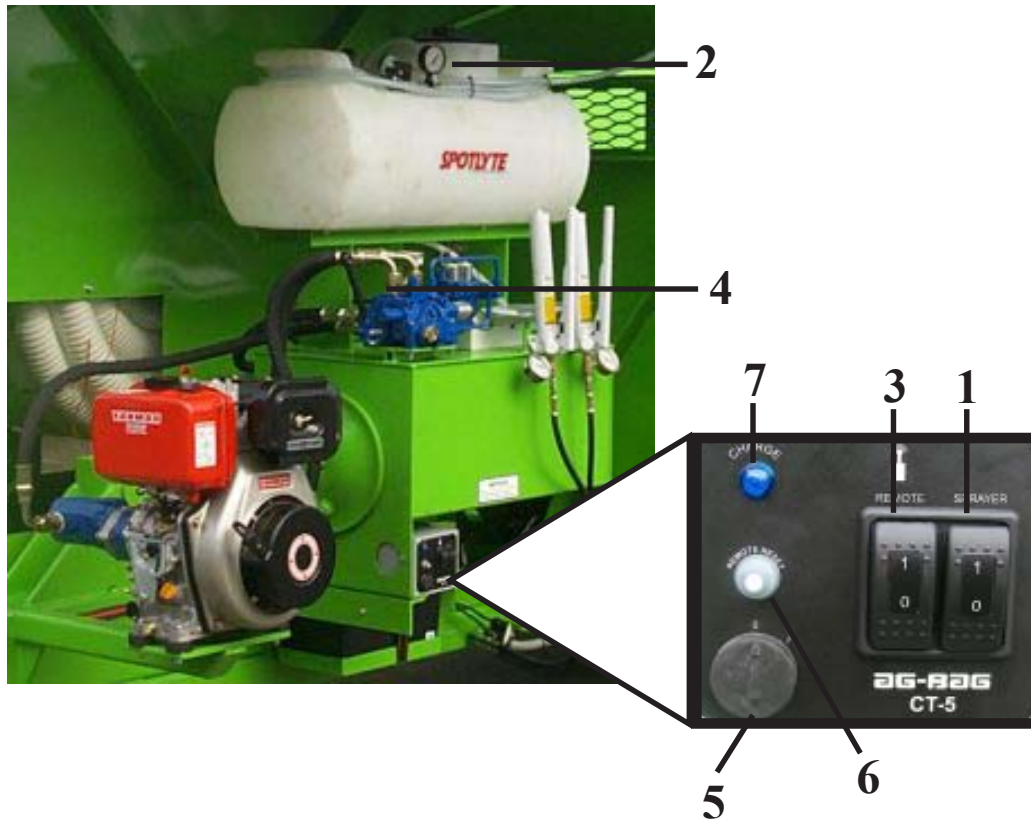
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- Check that the hydraulic tank valve is OPEN.

## **NOTICE:**

Running the machine with out opening the hydraulic tank valve will damage or destroy hydraulic pump. This type of damage may or may not be covered under warranty.

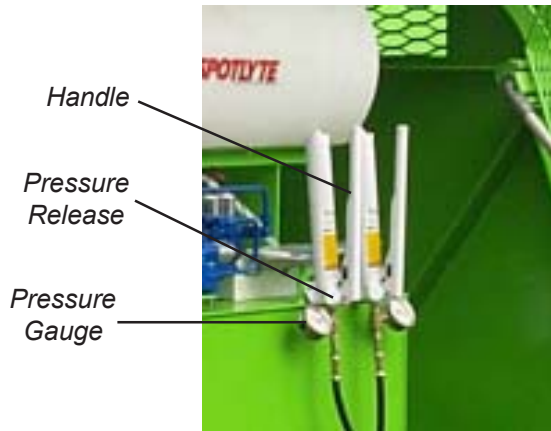
- Check all the fluid levels. Refer to the maintenance section.
- Check all the service points. Refer to the maintenance section.
- Check the brakes.
- Check the tire air pressure and the lug nut torque.



## Controls

1. **Sprayer Switch:** Arms the sprayer on and off from the remote.
2. **Sprayer Gauge:** The gauge indicates the sprayer system pressure.
3. **Remote Switch:** Turns the remote receiver on (1) and off (0).
4. **Manual Ram Control Handle:** Controls the forward and backward movement of the ram.
5. **Ignition Switch:**  
*Gas Engine:* Starts and stops the engine. Located on the engine. (not shown)  
*Diesel Engine:* Starts (1) the diesel engine. Turn the key to (0) to shutdown the charging system. *Must move the throttle to the far right position to stop the engine.*
6. **Remote Reset:** Restores the remote system if there is a power surge.
7. **Charge Light:** Light comes on when electrical system is charging and goes off when not charging.

## Hand Pump



The hand pump controls the hydraulic brake pressure on the rear wheels.

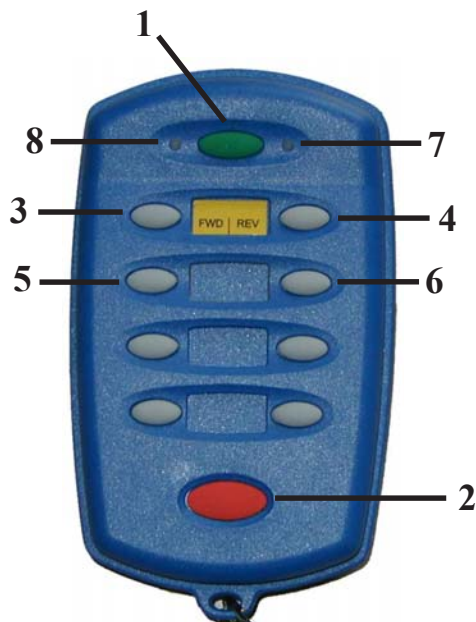
### Setting the brake pressure:

1. Close the pressure release knob.
2. Pump the handle back and forth until desired psi is reached. See the gauge for the psi. Desired psi will vary depending on surface.

### Adjusting the brake pressure:

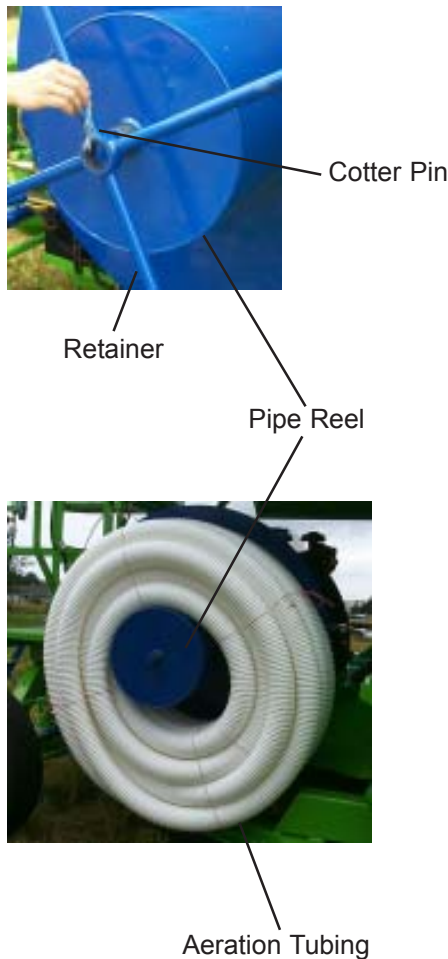
1. Open and close the pressure release knob to decrease psi's.  
or
2. Pump the handle back and forth to increase psi's.

## Remote Transmitter



1. Powers up the transmitter.
2. Powers down the transmitter.
3. Activates the plunger towards the bag.
4. Moves the plunger away from the bag.
5. Toggles the lights on or off (if applicable).
6. Toggles the sprayer on or off (if applicable).
7. YELLOW - Indicates the transmitter is powered up and transmitting.
8. RED - Slow flashing indicates approximately 20% battery capacity remaining.





## Installing Aeration Tubing on Reel

### 1. Remove the retainer.

- Unhook the bungee cords
- Remove the pin.
- Pull the retainer away from the pipe reel.

### 2. Slide the aeration tubing on the reel.

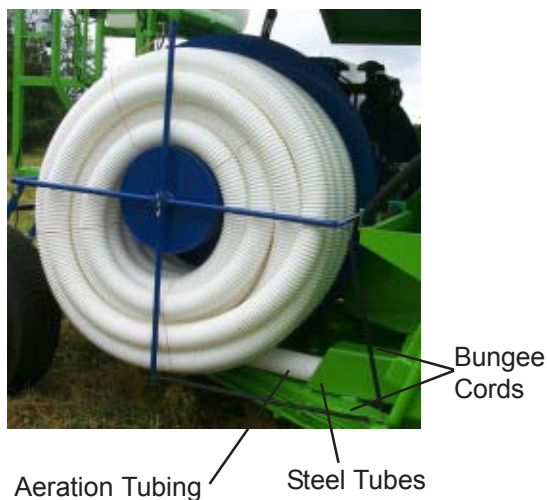
- Outside end of tubing rolling off the roll towards the rear of the machine.

### 3. Install the retainer(s).

- Slide the retainer back into place.
- Insert the pin.
- Hook up the bungee cords.

### 4. Remove the ropes holding the aeration tubing together.

### 5. Feed the aeration tubing through the steel tubes. Until you have 3 ft. out of the tunnel.



*Notice: As you are bagging, close inspection of the unrolling of the aeration tubing is required. As the tubing unrolls it tends to pull towards the center of the core and can restrict unrolling. After 2-3 pushes of the ram, inspect and spin the reel to make sure it is turning freely.*



*Lower the Bag Pan*

Remember to use only Ag-Bag® bags they are designed to fit and function properly. Other brands may fail or cause product loss.

1. **Lower the bag pan.**
  - a. Flip the handles down.
2. **Place the bag box behind the machine.**
  - a. Point the arrows on the side of the box towards the machine.
3. **Open the bag box.**
  - a. Cut the plastic bands.
4. **Open the outer lid, the black folded edge of the bag towards the tunnel.**
5. **Lift the top half of the bag and place it on the bag cradle.**
6. **Place the bag on the tunnel. Keep the folds flat.**
  - a. Work the bag onto the tunnel and place on the bag pan.
  - b. Push/slide the bag as far back as possible on the tunnel.
7. **Lift the bag pan up. Maintain a 3/4 inch gap between the tunnel and bag pan lip.**
  - a. Rotate the turnbuckle to adjust bag pan height. NOTE: Do not over extend turnbuckle.
8. **Install the bungee cord over the bag.**
9. **Remove all the ropes that hold the bag folds together.**

*Bag on the tunnel*



*Bungee Cord*

## Bag Placement

- When setting up the bag site keep in mind that the blower should be on the uphill side of the bag(s).
- Place the bag(s) in a North/South directions so both sides are exposed to the sun.
- Leave ample room between the bags to harvest the compost.
- Position the bag(s) so machine can be loaded from the side. As you work towards your pile of raw material.

## Blower End of the Bag

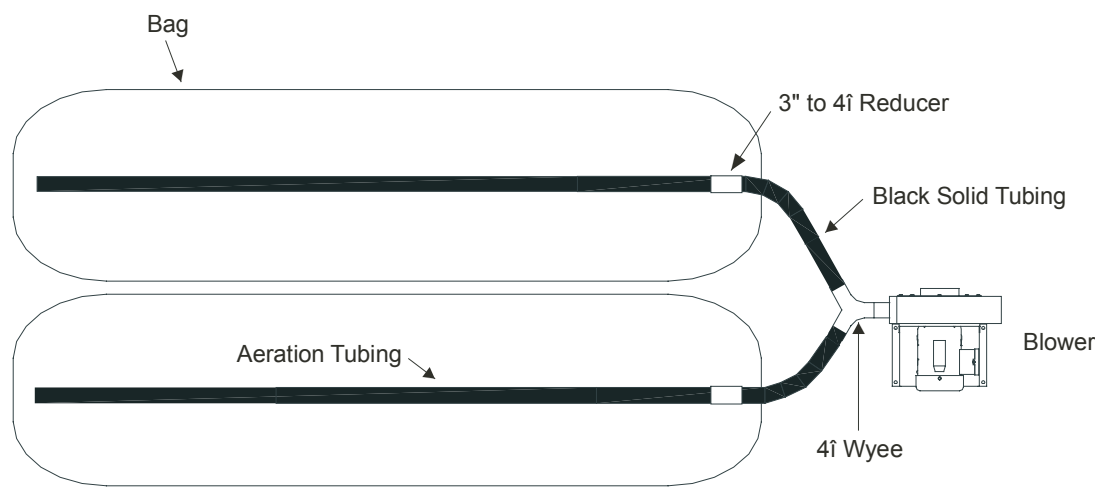
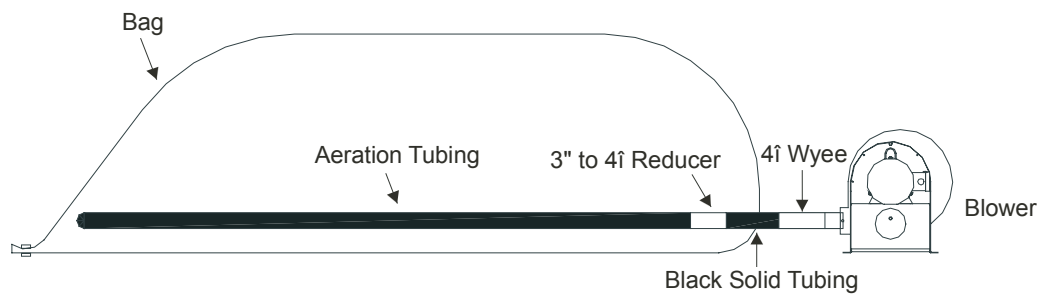
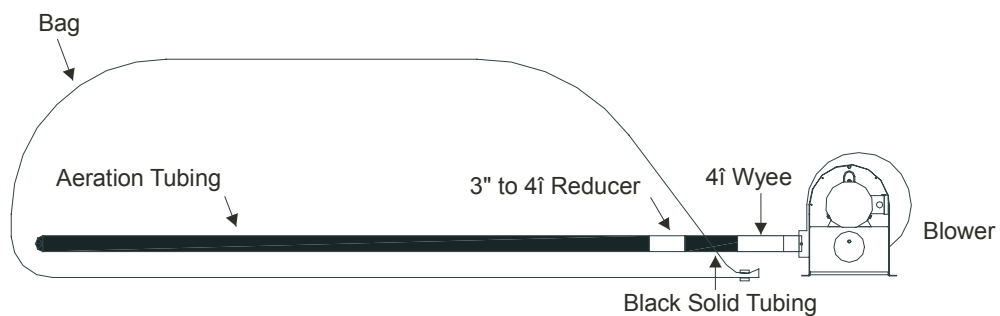
1. Pull 4 to 5 feet of the aeration tubing beyond the pipe guide.
2. Connect the aeration tubing to the reducer.
3. Tape the joints (aeration tubing & reducer) together.
4. Connect the solid black tubing to the reducer.
5. Tape the joints (reducer & solid black pipe) together.
6. Pull 6 to 8 feet of the bag off the tunnel.

## Non-Blower End of Bag

1. Pull out about 4' of aeration tubing. Seal the end of the aeration tubing with tape. Place the end on the bottom of the bag so the material will lie on it.
2. Seal the end of the bag with the MasterSeal. (Refer to Sealing the Bag.)

(Refer to illustrations on next page.)

5. Cut a 4 inch "X" about 4 feet from the bag end.
6. Run the solid black tubing through the 4 inch "X" in the bag.
7. Connect the black pipe to the wyee. Tape the joint (wyee & black tubing) together.
8. Tape and seal the bag around the black tubing.
9. Seal the end of the bag with the masterseal. (Refer to Sealing the Bag.)
10. Slip the wyee over the outlet on the blower. Tape wyee to the outlet.

**Bag Layouts****Top View of Bag****Blower at Beginning End of the Bag****Blower at Finished End of the Bag**

**1. Setup the machine.**

- a. Position the machine.
- b. Install the aeration tubing on the machine.
- c. Install the bag.
- d. Prepare the aeration tubing according to the layout.
- e. Seal the bag.

**2. Set the brake pressure.**

- a. Normal setting is between 500 psi and 1000 psi. The brake pressure should hold the wheels while allowing only minimal tire rotation. ***Note: Do not slide the wheels.***
- b. The setting will vary depending on surface conditions and material being processed.

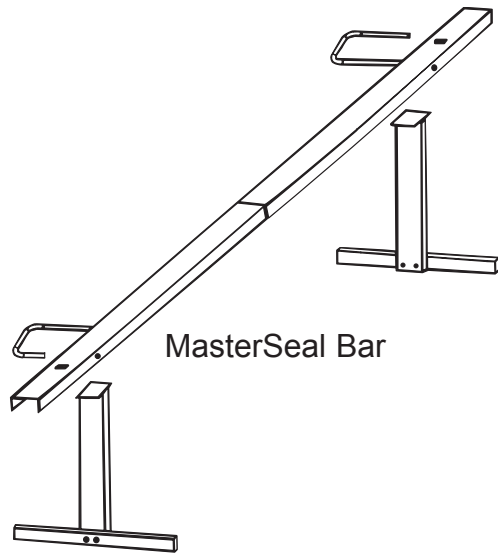
**3. Filling the bag.**

- a. Turn on the sprayer.
- b. Fill the hopper to the top of the tunnel opening.
- c. Push the material with the ram within 1 ft. of the tunnel opening. The remote system will do this automatically for you when activated.  
*Note: Keep the tunnel opening full so the top of the bag stays full or bulging can occur.*
- d. Adjust brake pressure as needed.  
*Note: Be careful to not overfill (pack) the bag. Porosity can be minimized and the bag could rupture or lose airflow.*
- e. Fill the bag until 3 folds of the bag remain on the tunnel. Stop filling.



4. **Cut the aeration tubing off where it enters the steel tube on the last push.**
5. **Move the machine forward until the bag is off the tunnel.**
6. **Attach and/or connect the aeration tubing according to the bag layout.**
7. **Seal the end of the bag with the sealstrip (Masterseal®).**
8. **Connect the bag tubing to the blower.**
  - a. See Bag Layout .
9. **Insert the vents.** (See Venting the Bag.)

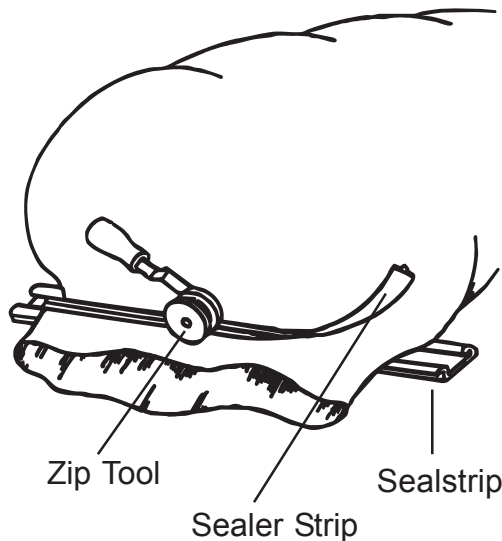
## Sealing the Bag



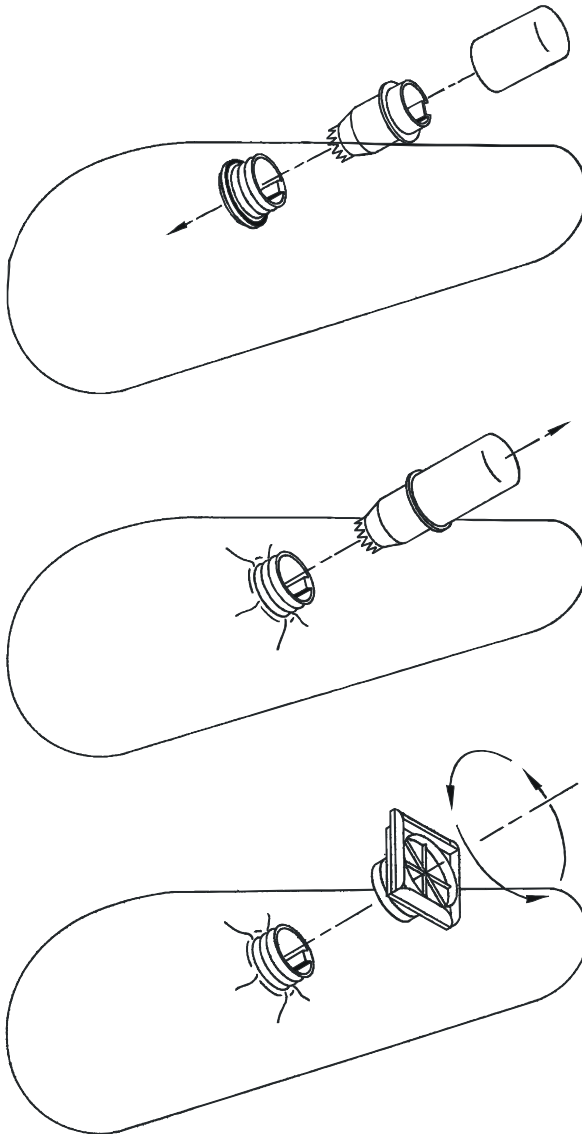
1. Set the MasterSeal Bar up at the end of the bag.
2. Place a sealstrip into the slots at each end of the bar with widest lip towards the bag.

3. Place the bag over the bar and onto the stretch arms.

Note: Seal as close to the material as you can without having particles between the parts of the sealstrip. This will eliminate loose plastic blowing in the wind.



4. Pull the overcenter stretch arm to tighten and dewrinkle the bag.
5. Run the sealer strip in with the roller tool.
6. Fold the bag under and it's an air and water tight seal.
7. Cut off the excess plastic that is beyond the sealstrip and discard. Leave about 6" so the strip will be secure.
8. Tape the ends of the sealstrip to the bag so the sealstrip will not unravel under pressure.



The vents allow fresh oxygen to enter the bag and exhaust CO<sub>2</sub> and other gases required for composting to happen.

**1. Insert the vents at 30' intervals down each side of the bag.**

- Take the cover off the vent tool. Insert the tool with prongs up, into the cover by lining up the notches.
- Taking the threaded side of the valve, line up the notches and slide it over the top of the pronged end of the tool.
- Locate the spot where you want the vent to be and apply the prongs of the tool to the plastic to create a hole.
- Push the tool through the hole and pull out leaving the threaded end sticking out.
- Turning the valve lid to the left, screw on tightly.

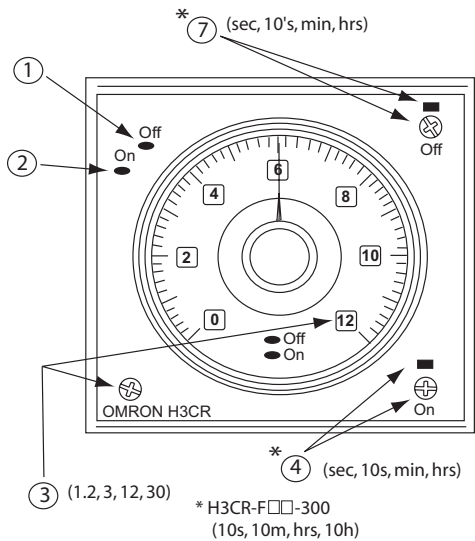
**2. Pace off 8 to 10 steps between each vent and install about 2/3 way up the side of the bag.**

**3. Adjust the opening of the valve 1/4 open at the blower end of the bag. Open each valve a bit more as you move down the bag, so at the far end they will be fully open. This will move the air to the far end and even out air distribution.**

**Caution:**

*Do not close all the valves with the blower running at any time. This will over stretch the bag and could cause a rupture, a split or even blow the sealstrip off.*





- ① OFF indicator (green)
- ② ON indicator (orange)
- ③ Rated time selector
- ④ ON time unit selector
- ⑤ Setting dial for OFF (green pointer)
- ⑥ Setting dial for ON (orange pointer)
- ⑦ OFF time unit selector

Note: If pointer is turned counterclockwise until overranged instantaneous output will issued.

## NOTICE

DO NOT set both timer dials on ZERO at the same time. This will short out the timer.

### Personnel Requirements

ABE requests that an individual(s) at the site be assigned to learn and maintain the setting requirements. ABE will instruct and teach the individual(s) about the system. This individual will be asked to forward temperature readings and other information to ABE as required. ABE will assist the individual to make the proper air flow (timer setting) adjustments as the cycle progresses toward completion.

### Setup Timer

On the right side of the timer unit, at the top and bottom are small Phillips screws. These have 4 settings to change the multiplier for the dial face. By turning the screw, it will change from 10s to 10m to 10hrs to hrs. Both should be set on 10m when it arrives.

In the bottom left is a Phillips screw to change the scale on the face of the dial. This should be set at 0.2 as the first setting. This will position the timer to go on and off in minutes.

### Set Timer

To start the first cycle:

1. Set the red pointer (center of the turn dial) to 0.2 (10 min x 0.2 = 2 min).
2. Turn the green pointer to 1.0 (10 min x 1.0 = 10 min).

All times will be changed with these 2 settings pointers. Further changes will be requested from ABE if required during

the bag's cycle time.

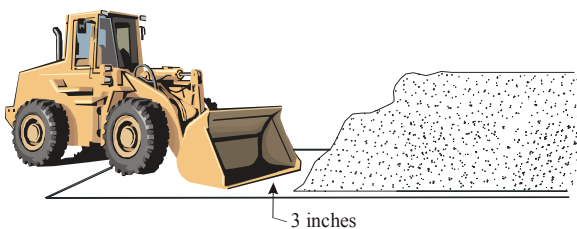
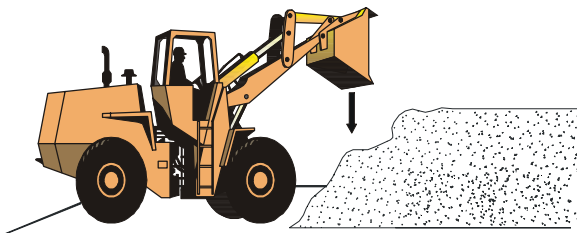
## Check Times

Check the cycles times with a watch to insure the on and off times are as required.

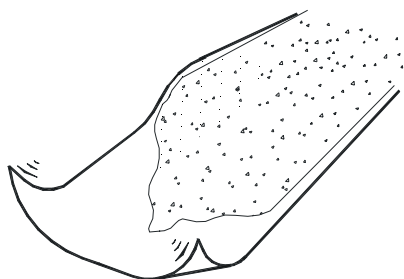
As the compost cycle continues less or more air may need to be applied according to the product temperatures. At the end of the cycle air requirements may be changed to full time on by making adjustments as previously outlined.

		Screw Setting							
		10m		10s		10h		hrs	
Dial Setting	0.0	0 Minutes		0 Seconds		0 Hours		0.0 Hours	
	0.2	2 Minutes		2 Seconds		2 Hours		0.2 Hours	
	0.4	4 Minutes		4 Seconds		4 Hours		0.4 Hours	
	0.6	6 Minutes		6 Seconds		6 Hours		0.6 Hours	
	0.8	8 Minutes		8 Seconds		8 Hours		0.8 Hours	
	1.0	10 Minutes		10 Seconds		10 Hours		1.0 Hours	
	1.2	12 Minutes		12 Seconds		12 Hours		1.2 Hours	
	0.0	0 Minutes		0 Seconds		0 Hours		0.0 Hours	
	0.5	5 Minutes		5 Seconds		5 Hours		0.5 Hours	
	1.0	10 Minutes		10 Seconds		10 Hours		1.0 Hours	
	1.5	15 Minutes		15 Seconds		15 Hours		1.5 Hours	
	2.0	20 Minutes		20 Seconds		20 Hours		2.0 Hours	
	2.5	25 Minutes		25 Seconds		25 Hours		2.5 Hours	
	3.0	30 Minutes		30 Seconds		30 Hours		3.0 Hours	
	0.0	0 Minutes		0 Seconds		0 Hours		0 Hours	
	2.0	20 Minutes		20 Seconds		20 Hours		2 Hours	
	4.0	40 Minutes		40 Seconds		40 Hours		4 Hours	
	6.0	60 Minutes		60 Seconds		60 Hours		6 Hours	
	8.0	80 Minutes		80 Seconds		80 Hours		8 Hours	
	10.0	100 Minutes		100 Seconds		100 Hours		10 Hours	
	12.0	120 Minutes		120 Seconds		120 Hours		12 Hours	
	0.0	0 Minutes		0 Seconds		0 Hours		0 Hours	
	5.0	50 Minutes		50 Seconds		50 Hours		5 Hours	
	10.0	100 Minutes		100 Seconds		100 Hours		10 Hours	
	15.0	150 Minutes		150 Seconds		150 Hours		15 Hours	
	20.0	200 Minutes		200 Seconds		200 Hours		20 Hours	
	25.0	250 Minutes		250 Seconds		250 Hours		25 Hours	
	30.0	300 Minutes		300 Seconds		300 Hours		30 Hours	

Choose the desired time out of the table and set your screw setting to the number at the top of the column and set the dial to the number at the left of the row.



1. Before distributing the pod, remove all the vent valves and temperature probes and store for future use.
2. Remove the material from the bag and static pile for 30 days to cure.
  - a. Cut the bag at ground level all the way around.
  - b. Cut around the sealstrip so it can be reused.
  - c. With 2 people, take 1 (one) end and fold over 1/4 of the way down the bag.
  - d. Go back to the folded over part (black exposed) and pull over the top to 1/2 way down the bag.
  - e. Finish this process to the end and fold over to make a square package.
  - f. Tie this up with cord and store for sale or disposal. This is a clean piece of plastic that is LDPE 4 and is recyclable.
3. Loosen the pile by placing loader bucket on the pile and dragging the product back towards the loader.
4. Scoop up the product. Keeping the bucket 3" above the plastic.
5. Drive the front wheels of the loader onto the plastic to help stretch and smooth out the plastic surface.
6. Continue to drag the product from the top corners of the pile to the center of



the pile.

7. Lift the plastic edges and shake product back to the center of the bag.
8. Continue this process until all the product is static piled.

## General Maintenance Schedule

### IMPORTANT!!

Stop the machine and Turn off Engine prior to servicing.

Group	Feature	Intervals	Lube Type	Points
Wheel	Lug Nuts	Torque Weekly 110 FT/LBS	n/a	24
	Bearing Wheels	Annually	See Chart	3
	Brake Pads	Annually	n/a	4
Ram				
	Cylinder Pivot Points	Weekly	See Chart	2
Pipe Reel				
	Shafts	Monthly	See Chart	1
Hydraulics	Hydraulic Oil Level	Check Daily	See Chart	1
	Hose and Fitting Leaks	Daily	See Chart	ref
	Change Hydraulic Oil & Clean Tank	Annually or when contaminated	See Chart	1
	Replace Filter	After 10 hrs (1 Pod), then 150 hrs/Annually	n/a	1
Sprayer				
	Spray Tip	Daily	n/a	1
	Clean Tank & System	Daily, with clean fresh water	n/a	1
Engine				
	Engine	Refer to Engine Manual	n/a	1

Parts	Lubricant
Grease Points	High Pressure Moly Grease
Hydraulic System	Grade 46 ISO hydraulic oil

### Hydraulic Tank

Check oil level daily. **The cylinder must be retracted.**

Amount of Oil: 20 Gallons

Change of Oil: Change the oil at least once a year. The drain plug is located on the back lower side of the tank.

Filter Numbers: 1540167 AG-BAG

Change of Filter: Change the filter after 10 hours of operation or the completion of 1 pod. Restroke 100 times and open the bleeder on the cylinder (1 in front & 1 in back) shut the sytem down. Then change the filter every 150 hours of operation or a minumum of once a year.

### **Storage and Idle Period(s)**

- Retract Ram cylinder to prevent corrosion.
- Clean/Wash to remove corrosive materials.
- Lubricate and grease all moving parts.
- Keep the fuel tank full to prevent condensation in tank.

## POD

A Pod is a unit consisting of:

- Bag
- Tubing and Couplers
- Sealstrip
- Vents
- Inoculant.

The Pod items and other items required for bagging are explained below.

## BAG

Size: 5' x 200'

Color: Green (outside) & Black (inside)

Material: LDPE 4 (recyclable)

The bag is specially designed for composting. The color attracts heat and is aesthetically correct for appearance and is hardly noticeable.

## AERATION TUBING

Size: 3" x 190'

Color: White

The heavy duty aeration tubing is perforated at specific intervals for pressurization from end to end. Not an "off the shelf" item the tubing is specific to this operation.

## SOLID BLACK TUBING

Size: 4"

Color: Black

The solid black tubing is used to connect the blower to the aeration tubing.

## TUBING COUPLERS

Item: 3" to 4" Reducer Straight Coupler

Number Required Per Bag: 1

Used to connect the aeration tubing together with the solid black tubing.

Item: 4" Wye

Number Required Per Bag: 1

Used to connect the black tubing and blower together.

### **SEALSTRIP**

The sealstrip is specially designed to seal the bags and prevent leaks.

### **VENTS**

Number Required Per Bag: 12

The vents allow for excess gases to be released from the bag. When closed the vents are airtight and watertight. They are reusable, until they do not close properly because of warping. An insertion tool is included to install the vents in the bag.

### **INOCULANT**

Number Required Per Bag: 3 pouches

The inoculant helps the material (waste) to break down quickly. Simply mix the inoculant with water in the sprayer tank (see mixing ratio on pouch) and spray on the material (waste).

### **BLOWER**

Number Required Per 2 Bags: 1

The blower pushes air through the aeration tubing. Keeping the oxygen level up so material (waste) will decompose quickly. Each blower is designed for 110v 60hz electric supply. The blower should be connected to a 20-amp service for load protection upon startup. The motor startup is 5.6 amps and runs at about 2 amps.

### **DUCT TAPE**

Duct tape is used to tape all the tubing connections together.

### **THERMOMETER**

Shows the temperature of the material in the bag. They can be inserted into the material through the vents.