

# Air Curtain Destructor Operating Instructions

## **Step 1 – Ignition Process**

Load the pit 1/3 full with a homogeneous mixture of trees, logs, and large brush. Douse the wood with **1 PINT** of fuel oil, putting the majority of the oil on the wood at the front center side of the pit. Ignite the wood at the same point. Allow sufficient time for the fire to take hold before introducing any air from the Air Curtain Destructor Turn on Air Curtain Destructor fan using following instructions after fire has ignited across pit.

**Caution: DO NOT** use highly volatile solvents such as mineral spirits, gasoline, etc. for ignition.

**NOTE:** Only wood waste consisting of trees, logs, large brush, stumps relatively free of soil, and lumber may be burned.

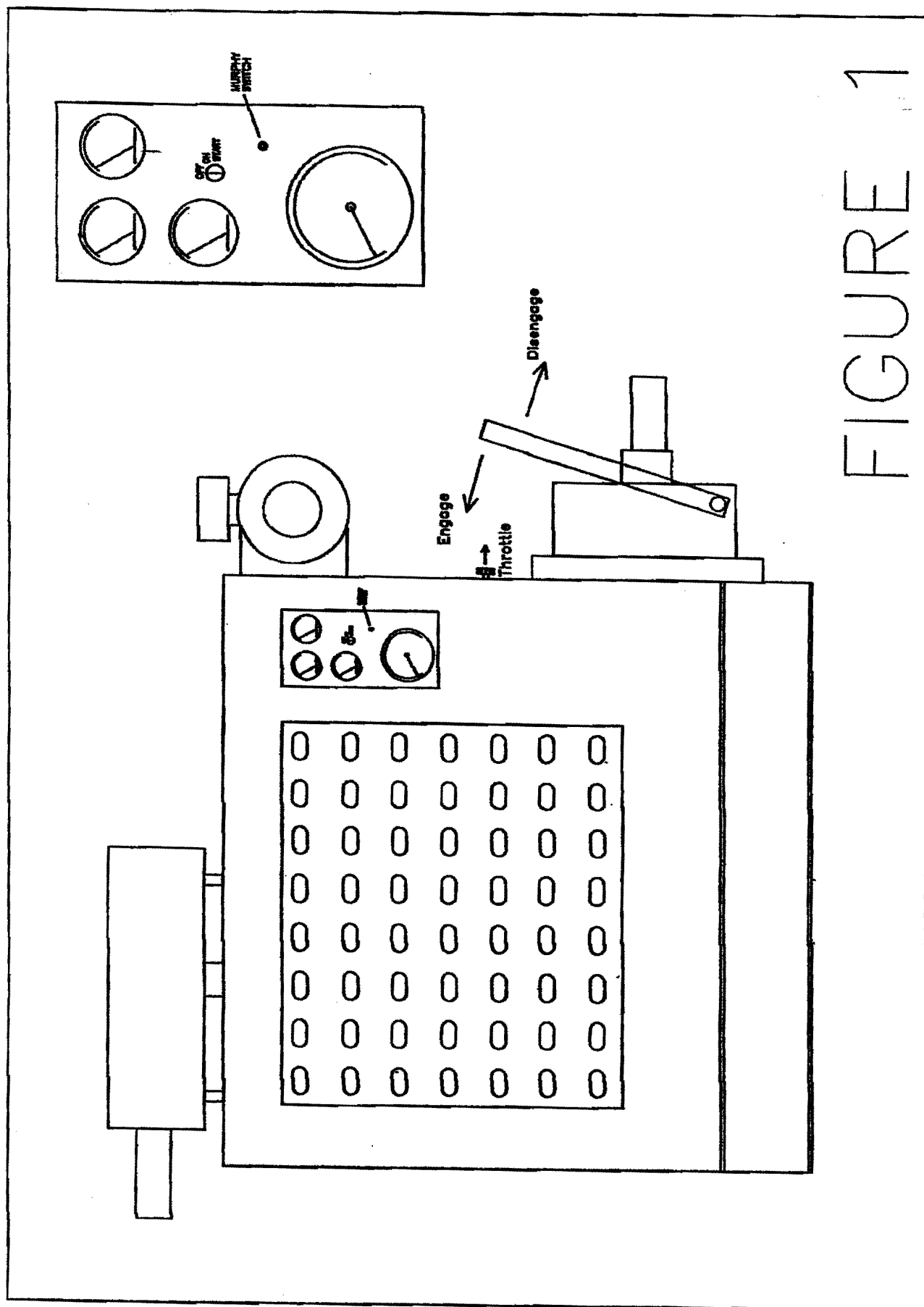
**CAUTION: AN OPERATOR MUST REMAIN WITH THE MACHINE AT ALL TIMES!**

## **Engine Start-Up Procedure**

1. Disengage the clutch lever as shown in FIGURE 1.
2. Push in murphy switch and hold.
3. Using the ignition switch, start the engine.
4. Release murphy switch after the oil pressure level has risen to proper operating level.
5. Engage clutch as shown in FIGURE 1.
6. Using the throttle adjustment knob increase engine speed to 2000 RPM.

## **Engine Shut-Down Procedure**

1. Disengage Clutch lever.
2. Reduce engine speed to 800 RPM.
3. Maintain 800 RPM for several minutes to allow engine to cool.
4. Switch ignition key to **OFF** position.



## **Operating Instructions (cont.)**

### **STEP 2 – Loading Procedures**

Once the fire reaches full intensity intermittent loading may begin. The intervals between loading may be determined by observing the burning rate. The charges should be alternated between light and heavy material. Also, the material should be loaded toward the rear of the pit under the ACD manifold.

The pit should not be overloaded, that is, the material should not be piled up so high that it will protrude above the air curtain. Loading several smaller loads instead of one large load when charging will enhance burner performance. Burning times shall be regulated by state air quality rules as explained in the permit requirements.

When starting up the fire in the morning, you need only to turn on the blower at low speed and begin lightly loading dry wood. Enough hot coals will remain to start the fire each morning if the pit was not covered the day before.

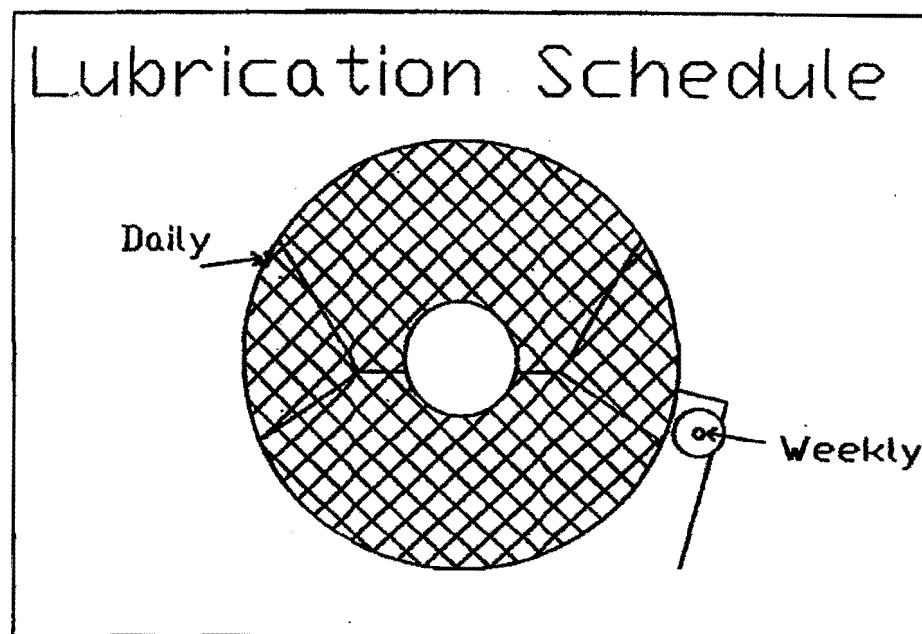
### **STEP 3 – Shut Down Procedures**

Stop loading material into the pit approximately 2 hours before you turn the blower off using the Engine Shut Down Procedure described above.

## Air Curtain Service Instructions

Note: Always allow engine to cool before performing any service operations

1. Check engine motor oil level.
2. Check radiator water level. **WARNING: NEVER CHECK HOT !**
3. Examine all belts for wear and tension.
4. Inspect fan for cracks or abnormal wear. This can be carried out with a flashlight.
5. Grease engine clutch, belt tensioner, and fan as shown in the following drawings.



## **Operating Instructions (cont.)**

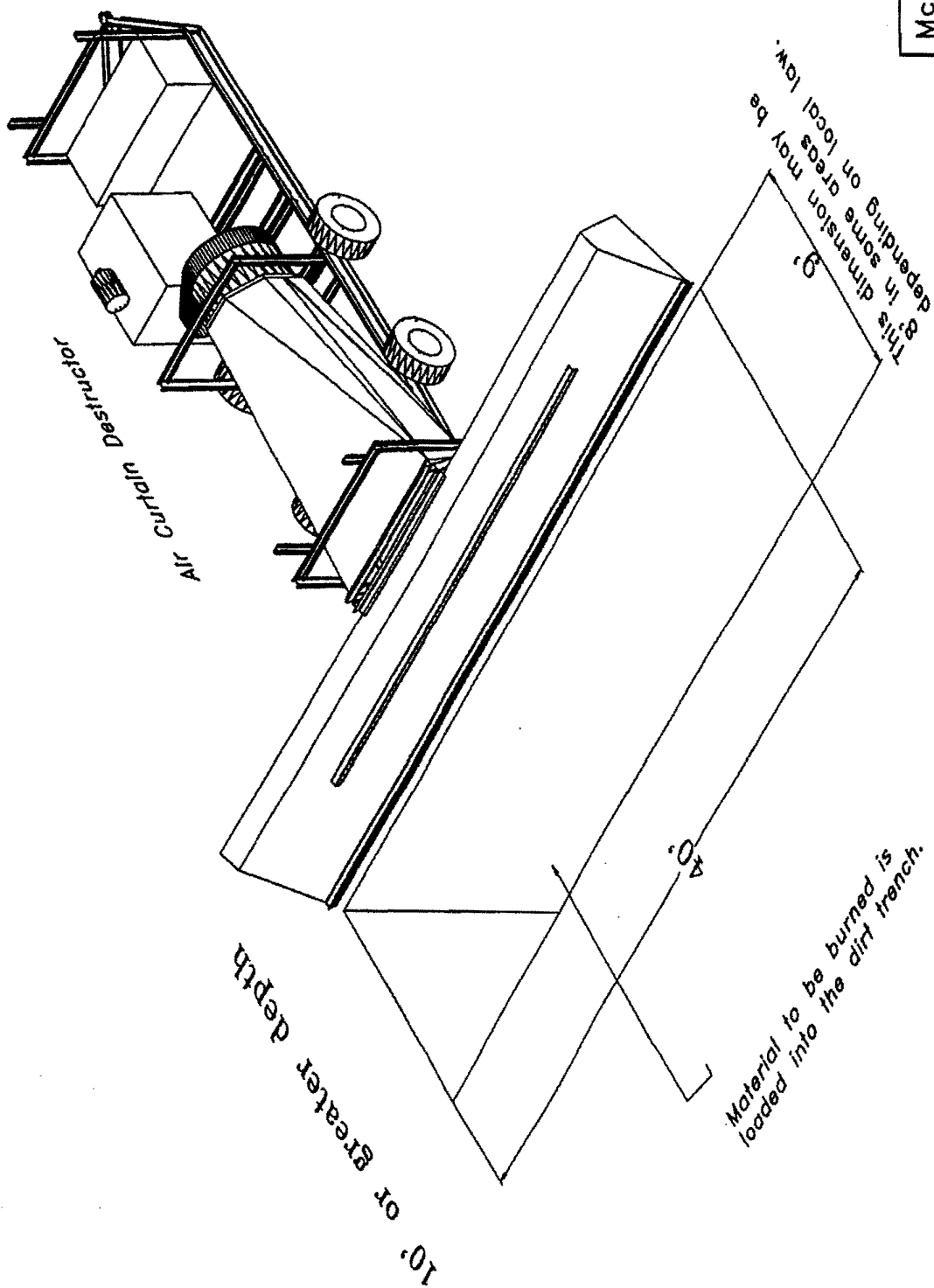
### **STEP 4 – Maintenance & Safety Requirements (See also Service instructions on previous page)**

Ash removal is required in order to maintain efficient and proper combustion. Ashes should not be allowed to build up in the pit to higher than 1/3 the pit depth or to the point where they begin to impede combustion and are blown out of the pit, whichever occurs first. Before ashes are removed they should be saturated with water for cooling and dust control.

For reasons of public Safety, it is recommended that a fence or barrier surround the combustion pit.

The machine should be serviced daily at fan bearings.

To quit burning at the end of the day, loading should be discontinued one to one and half-hours before the blower is shut off.



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M40F Set-up diagram