Loss Prevention T.I.P.S.
Together Improving Processes & Safety

Preventing Heavy Equipment Fires

TML RISK POOL

Heavy equipment fires are an often-overlooked risk in public works, utilities, parks, and other related operations where tub grinders, mulching machinery, and compactor type machinery is utilized. These incidents can occur suddenly—especially during mulching, brush grinding, or mowing in dry vegetation.

Recently, a trackhoe with a mulching attachment was destroyed by fire when wood debris ignited in the engine compartment. Despite quick action using multiple fire extinguishers, the blaze spread too quickly to control. Losing one piece of heavy equipment can easily incur losses in the hundreds of thousands of dollars. As an example, the incident mentioned above had incurred losses of almost $240,000, not to mention downtime, project delays, and lost productivity. Review the tips below to help prevent equipment fires at your organization or even around your home.

1 **Daily Cleaning.** Remove wood chips, dust, and debris from engine compartments, auxilary motors, and exhaust areas at the start and end of every shift to prevent dangerous buildup near hot surfaces. If equipment will be unattended during lunch or breaks, it should be cleaned prior to leaving the area.

2 **Fire Prevention.** Install protective guarding, hydraulic hose sleeves, and heat insulation around exhaust systems and auxilary motors. These simple design improvements significantly reduce ignition risks during mulching and heavy debris operations, in addition to cleaning. Fire prevention shutdown inspection guidelines should be followed.

3 **Extinguishers.** Equip each machine with at least one 20 lb ABC (multipurpose) fire extinguisher, ensure smaller backup units are easily accessible, and train operators on quick, effective extinguisher use during emergencies. Having extinguishers does not negate the need to call 911 immediately to prevent fire growth or spread.

4 **Routine Inspection.** Conduct daily pre-use inspections to identify and correct cracked hoses, hydraulic leaks, exposed wiring, or damaged insulation. Addressing these small issues quickly prevents them from escalating into causes of catastrophic fires.

5 **DPF/Exhaust Regeneration** (Newer Machinery). During the self-cleaning process of a diesel engine's particulate filter (DPF), the exhaust temperatures can exceed 1,000°F. Always park outside, away from dry vegetation or combustible materials, and closely monitor warning indicators until the process is fully complete.

LEARN MORE WITH THESE ADDITIONAL RESOURCES:

- The Owner's Manual for your specific piece of machinery should be readily available and utilized by all staff associated with operation of the equipment.
- Texas Department of Insurance: Safety at Work Free Online Safety Videos.
- TMLIRP Training Video Now: Training Video Now Streaming Rental Platform — AP Safety Training: Using an ABC Fire Extinguisher, Fire Extinguisher Basic Training, Industrial Fire Prevention, Welding Safety