

Check tires, rims or undercarriage for damage or abnormal wear and clear away debris.

Much like you or I don't operate at full capacity on a broken foot or while wearing shoes that are broken or don't fit, a machine can be hobbled by the inefficiencies of the tires or tracks it sits on. Identify and report any damage or potential damage.

Check fluid levels – engine and hydraulic oil, diesel and diesel exhaust fluid (DEF), and coolant.

Fluids are the lifeblood of each machine and require specified levels to operate properly. A sudden drop in fluid levels may point to any number of problems with the machine that require immediate attention (blown hoses, leaking filter, etc.).

Clear any accumulated debris from around the radiator and other engine components.

The engine is made of moving parts and belts that generate heat and friction – and systems designed to cool the engine compartment require room to breathe. It's important to check and remove any clutter or material from the jobsite that may have found its way into the engine compartment.

Check the fuel, oil, air and other filters for signs of damage or leaking.

Filters are often a quick and easy item to replace – and operating with properly working filters can prevent any number of problems with the machine.

Check belts (alternator, fan, etc.).

A worn and frayed belt is another wear item that is relatively easy to replace. If noticed before it fails, then the operator can communicate with the maintenance team to replace during scheduled downtime or the next PM to ensure it doesn't create unplanned downtime during the course of the work day.

Identify greasing points and frequency.

Every machine and every OEM is different – and keeping the machine properly greased is critical considering the power and friction created by these giant pieces of steel working together. It can also help keep out moisture and abrasive materials from the jobsite that can work into joints and friction points if not properly greased.

Check for leaking or pooled fluid around and under the machine.

This is an easy indicator that something isn't right, and the source of that fluid should be identified and addressed/fixed before operation, and those fluids should be replaced.

Check auxiliary hydraulic connections and pressure.

Simply check the integrity of the coupling structure and that it hasn't been damaged. Newer equipment often includes pressure relieving quick disconnects – take the time to relieve the pressure when disconnecting attachments.

Check for new signs of structural damage, scratches or dents on the machine.

This is almost more important post-operation than it is pre-operation. Once done for the day, noticing and identifying any damage to the machine ensures that needed repairs are made before the next shift starts, and also allows the operator to identify how that damage occurred. Is there another structure on site that the machine came into contact with? Is there damage elsewhere on site that needs to be addressed? Similarly, if damage is noticed before a shift starts, and it was not there when the operator inspected it the day before, that pinpoints that something happened overnight or that there was possible unauthorized use of the machine.

Check for damage on ground engaging tools (buckets, teeth, etc.).

A machine's performance is affected greatly by the efficiency of how its working tools engage with the material it is digging into and moving. Worn or broken buckets and teeth lead to inefficient operation, greater fuel use, and greater wear and tear to the machine as a whole. Identifying and addressing these elements of the machine before they become problematic will make the operator more productive and efficient.

Inspect the attachment mount-up to ensure proper connection.

This includes checking that the coupler is flush and fully engaged (either via manual or automatic/hydraulic means), and that the hydraulic hoses (and electrical connections, if applicable) are properly connected.

Inspect the operator compartment and clear away any debris or obstructions.

Clutter can be distracting – and anything in the cab that ultimately prevents the full range of controls from being engaged is a hazard to operation.

Check and set mirrors.

This might seem obvious, but visibility is critical to jobsite awareness, safety and productivity. Having mirrors set to the operator's preference will make them a better operator.

Familiarize yourself with the control style and change as needed.

Most of today's machine's come with rather simple pattern selectors that allow the operator to use the control pattern that they are most familiar with. This will lead to greater productivity and greater operator satisfaction.

Identify auxiliary/attachment controls.

Each type and style of machine controls attachments differently – operators should identify how to properly work their attachment prior to attempting to use it.

Start the engine and review console indicators and warnings.

Today's machines are built to give the operator more feedback on the workings of internal systems than ever previously available. Take note of any flashing symbols or warning lights, check the owner's manual and consult with maintenance staff prior to operation.

If equipped, check the rearview camera.

Again – jobsite awareness and safety is paramount. If that rearview camera is otherwise obstructed or disabled, it handicaps the operator's ability to have full awareness of the worksite around him/her.

Review all external surroundings from the cab.

Know your work site, and the people and structures that exist inside your working envelope. This will ensure optimal jobsite safety and productivity.
