Final Checks Before Your Construction Equipment Ships

When a piece of construction machinery is about to leave a seller’s yard, a thorough inspection protects everyone involved. The buyer wants to be sure the machine will start working on day one. The seller wants to avoid returns, disputes, and delays. A structured pre-delivery check is the best way to catch problems while they are still easy to fix. This article covers the key points to examine before accepting delivery of any heavy machine.

Visual and Structural Inspection

Start with a walk-around. Look for obvious damage, rust, cracks, or signs of past repairs that were not mentioned in the listing. Check the frame and main structural members for bends or weld failures. Even a small crack in a loader arm or a boom can grow into a major failure under load. Pay attention to areas where dirt and moisture collect, such as the underside of the cab, the battery tray, and the inside of the bucket or blade. Surface rust is normal on older equipment, but flaking metal or holes indicate a deeper problem.

Inspect the tires or tracks. On wheeled machines, check tread depth, sidewall cuts, and inflation. Uneven wear can point to alignment issues or a bent axle. On tracked machines, look for loose or missing track pads, damaged drive sprockets, and worn idler rollers. A broken track on a jobsite stops everything and is expensive to repair on site.

Fluid Levels and Condition

Open the hood and check the engine oil, hydraulic fluid, coolant, and fuel. Each fluid should be at the correct level and look clean. Milky oil suggests coolant leakage. Dark, gritty hydraulic fluid points to worn pumps or contamination. If the coolant is rusty or oily, the radiator or head gasket may be failing. Do not rely on the gauges alone; pull the dipsticks and look at the samples. A quick smell test can also help: burnt-smelling transmission fluid means overheating and likely internal damage.



Check for leaks. Run the engine and let it reach operating temperature, then look under the machine for drips. A few drops from a loose fitting are one thing; a steady stream from a seal or hose means a repair before the machine works. Also check the hydraulic cylinders and lines for bulges or chafing, which can lead to sudden failure under pressure.

Engine and Powertrain

Start the engine from cold. Listen for unusual noises: knocking, whining, or grinding. Let it idle and then accelerate a few times. The engine should respond smoothly without excessive smoke. Blue smoke at startup can be normal on older diesels, but thick black or white smoke

indicates fuel or coolant problems. Check the exhaust for leaks and listen for air intake whistles that suggest a cracked manifold.

Engage the transmission or hydrostatic drive. On a wheel loader or excavator, shift through all forward and reverse gears. The engagement should be firm but not harsh. Listen for clunks when shifting. If the machine has a powershift or automatic transmission, check that it shifts at the correct engine speeds and does not slip under load. For a generator or compressor unit, run it under a moderate electrical or pneumatic load to confirm the engine can carry it without stalling or overheating.

Hydraulic System and Attachments

The hydraulic system is the heart of most construction equipment. Check the pump pressure with a gauge if possible, or at least listen for a steady, even sound from the pump. Operate each hydraulic function: lift the boom, curl the bucket, extend the arm, tilt the blade. Each movement should be smooth and predictable. Jerky or slow motion often means air in the lines, a worn pump, or a failing control valve. Check the hydraulic flow rate by timing how fast an attachment moves through its full cycle. A slow cycle may indicate a restriction or low pump output.

Inspect all machine attachments. Quick couplers, pins, and locking mechanisms should engage fully without excessive play. Worn attachment points can cause a bucket or blade to detach during work, creating a serious safety hazard. Also check the condition of the bucket teeth, cutting edges, and wear plates. Dull or broken teeth reduce efficiency and can damage the attachment further.



Undercarriage and Ground Clearance

On excavators and dozers, the undercarriage takes the most abuse. Inspect the rollers, idlers, and sprockets for wear. Measure the track tension: a too-loose track can derail; a too-tight one wears out bearings fast. Check the ground clearance under the belly pan. Low clearance can get the machine stuck on soft ground or rock piles. If the machine has a blade or ripper, check the mounting brackets and the condition of the cutting edge. A bent blade frame will never grade evenly.

Electrical and Control Systems

Turn on all lights, beacons, and alarms. Check the horn, backup alarm, and any cameras or screens. Test the joysticks, pedals, and switches. Each control should move freely and return to neutral when released. Sticky or loose controls can cause unintended movements. Look at the wiring for chafed insulation or loose connections, especially near pivot points and the battery. Corroded battery terminals can cause intermittent electrical faults that are hard to diagnose later.

If the machine has a computer or display, let it boot up and check for error codes. Many modern machines store fault codes that indicate past problems. A seller who lets you scroll through the service menu shows confidence. If the machine has a GPS or grade-control system, verify that the receiver and antennas are present and undamaged.

Safety Equipment and Compliance

Check that all safety guards, rollover protection structures, seat belts, and fire extinguisher mounts are present and in good condition. A missing ROPS (rollover protective structure) is a deal-breaker on many jobsites. Inspect the condition of the seat belt webbing and buckle. Look at the mirrors and backup camera lens for cracks. Verify that the machine has the correct slow-moving-vehicle sign or reflective markings if required by local law. A machine that fails a safety inspection on arrival can delay your project while it is retrofitted.

Documentation and History

Ask for the owner’s manual, service records, and any repair invoices. A machine with a complete service history is usually better maintained than one with gaps. Check the hour meter and odometer readings against the records. Discrepancies can mean tampering or unreported use. Confirm that the machine’s serial number matches the paperwork. Also verify that the title is clear and that there are no liens against the equipment. A quick online check with the state or a service like epowerhousellc.com can confirm ownership details before the machine ships.



A pre-delivery inspection takes time, but it saves far more time and money than it costs. Walk around, start it up, work the controls, and check the fluids. If something feels wrong, ask questions. A reputable seller will answer them and may even offer a short warranty on major components. When the machine arrives at your site, you want it to start work immediately, not sit idle waiting for repairs. A thorough check before delivery ensures that happens.

Once you have completed the inspection and are satisfied with the condition, the next step is arranging transport and insurance. Keep a copy of the inspection report and photos for your records. If the machine arrives with damage that was not noted during the pre-delivery check, you have evidence to support a claim. Many buyers find it helpful to use a third-party inspection service for high-value equipment. For a list of verified sellers and additional

resources, you can visit epowerhousellc.com to see available units and compare specifications. A careful inspection now keeps your project on schedule and your operating costs predictable.