

Maintenance Checklists

Periodic scheduled maintenance is intended to be performed in a complete maintenance facility by trained mechanics. Scheduled maintenance procedures can be found by referring to the appropriate section of the service manual.

Always refer to manufacture's (e.g. engine, transmission, axle) maintenance manual before performing any maintenance.

First 50 Hours

These checks should be performed after the machine has been in service for 50 hours.

1	Check fluid levels - differential, planetaries	OK <input type="checkbox"/>	Add <input type="checkbox"/>
2	Check hydraulic system - hoses, fittings	OK <input type="checkbox"/>	Repair <input type="checkbox"/>
3	Check battery - cables & connections	OK <input type="checkbox"/>	Repair <input type="checkbox"/>
4	Check all driveline capscrews - torque to spec. See service forms 80-1057 Torque Specification Chart & 80-627 Driveline Service.	OK <input type="checkbox"/>	No <input type="checkbox"/>
5	Check electrical system - lights, options, connections	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Check all pins, bushings and load bearing hardware	OK <input type="checkbox"/>	No <input type="checkbox"/>
7	Check accumulator pre-charge (see 80-1076)	OK <input type="checkbox"/>	No <input type="checkbox"/>
8	Check parking brake lining wear and readjust if necessary	OK <input type="checkbox"/>	Readjust <input type="checkbox"/>
9	Check wheel lug nuts and studs mechanically, check torque	OK <input type="checkbox"/>	Readjust <input type="checkbox"/>

First 100 Hours

These checks should be performed after the machine has been in service for 100 hours.

1	Drain and fill differential	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Drain and fill planetaries	OK <input type="checkbox"/>	No <input type="checkbox"/>
3	Inspect wheel bearing, readjust if necessary	OK <input type="checkbox"/>	No <input type="checkbox"/>
4	Check wheel lug nuts and studs mechanically, check torque	OK <input type="checkbox"/>	Readjust <input type="checkbox"/>
5	Change transmission filters	OK <input type="checkbox"/>	No <input type="checkbox"/>

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First 250 Hours

These checks should be performed after the machine has been in service for 250 hours.

1*	Check engine valve lash	OK <input type="checkbox"/>	No <input type="checkbox"/>
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* Service must be performed by a Caterpillar representative.

First 500 Hours

These checks should be performed after the machine has been in service for 500 hours.

1	Obtain coolant sample (level 2) for analysis	OK <input type="checkbox"/>	No <input type="checkbox"/>
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Weekly Maintenance (50 Hours)

Perform these checks weekly, or after 50 hours, whichever occurs first.

1	Repeat the daily check - see form Daily/Shift Maintenance in section 5	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Check for fluid leaks - oil, fuel, water, transmission	OK <input type="checkbox"/>	Repair <input type="checkbox"/>
3	Check battery electrolyte level	OK <input type="checkbox"/>	Add <input type="checkbox"/>
4	Lubricate chassis & driveline cross assemblies	OK <input type="checkbox"/>	No <input type="checkbox"/>
5	Record engine rpm	High _____	Stall _____
6	Check for structural damage - inspect chassis & attachments for bending, cracking & broken welds	OK <input type="checkbox"/>	Repair <input type="checkbox"/>

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Bi-Weekly Maintenance (100 Hours)

Perform these checks every other week, or after 100 hours, whichever occurs first.

1	Repeat the 50 hour check	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Check wheel lug nuts and studs mechanically, check torque	OK <input type="checkbox"/>	Repair <input type="checkbox"/>

Monthly Maintenance (250 Hours)

Perform these checks monthly, or after 250 hours, whichever occurs first.

1	Repeat the 100 hour check	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Obtain engine oil sample for analysis	OK <input type="checkbox"/>	No <input type="checkbox"/>
3	Check axle differential oil level	OK <input type="checkbox"/>	Add <input type="checkbox"/>
4	Check axle planetary oil levels	OK <input type="checkbox"/>	Add <input type="checkbox"/>
5	Check all hydraulic pressures and record	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Check fire suppression actuator	OK <input type="checkbox"/>	No <input type="checkbox"/>
7	Check and adjust the parking brake (if required)	OK <input type="checkbox"/>	No <input type="checkbox"/>
8	Clean radiator	OK <input type="checkbox"/>	No <input type="checkbox"/>
9	Change hydraulic tank breather assembly	OK <input type="checkbox"/>	No <input type="checkbox"/>
10	Check pump mounting bolts and hose connections. Re-torque if necessary.	OK <input type="checkbox"/>	No <input type="checkbox"/>
11	Change fuel system primary filter (water separator) element	OK <input type="checkbox"/>	No <input type="checkbox"/>
12	Change secondary fuel filter	OK <input type="checkbox"/>	No <input type="checkbox"/>
13	Change engine oil & filters	OK <input type="checkbox"/>	No <input type="checkbox"/>
14	Obtain coolant sample (level 1) for analysis	OK <input type="checkbox"/>	No <input type="checkbox"/>
15	Test/Add cooling system supplemental cooling additive (SCA) if necessary	OK <input type="checkbox"/>	Add <input type="checkbox"/>
16	Check/Clean/Tighten engine grounding stud	OK <input type="checkbox"/>	No <input type="checkbox"/>
17	Check/Replace engine hoses and clamps	OK <input type="checkbox"/>	No <input type="checkbox"/>
18	Clean engine crankcase breather	OK <input type="checkbox"/>	No <input type="checkbox"/>
19	Check engine starting motor	OK <input type="checkbox"/>	No <input type="checkbox"/>

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Quarterly Maintenance (500 Hours)

Perform these checks quarterly, or after 500 hours, whichever occurs first.

1	Repeat the 250 hour check	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Change high pressure hydraulic filters	OK <input type="checkbox"/>	No <input type="checkbox"/>
3	Change hydraulic return filters	OK <input type="checkbox"/>	No <input type="checkbox"/>
4	Change brake cooling return filter	OK <input type="checkbox"/>	No <input type="checkbox"/>
5	Change transmission filters	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Take oil samples from transmission, axle, and hydraulic system for analysis	OK <input type="checkbox"/>	No <input type="checkbox"/>
7	Check accumulator pre-charge pressure (see 80-1076)	OK <input type="checkbox"/>	No <input type="checkbox"/>
8	Check turbocharger	OK <input type="checkbox"/>	No <input type="checkbox"/>
9	Check water pump	OK <input type="checkbox"/>	No <input type="checkbox"/>
10	Check/Adjust/Replace engine belts	OK <input type="checkbox"/>	No <input type="checkbox"/>

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Semi-Annual Maintenance (1000 Hours)

Perform these checks semi-annually, or after 1000 hours, whichever occurs first.

1	Repeat the 500 hour check	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Change transmission oil	OK <input type="checkbox"/>	No <input type="checkbox"/>
3	Clean and flush cooling system	OK <input type="checkbox"/>	No <input type="checkbox"/>
4	Check pins and bushings for wear	OK <input type="checkbox"/>	No <input type="checkbox"/>
5	Steam clean machine, inspect for structural cracks	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Replace cab pressurizer and air recirculation elements.	OK <input type="checkbox"/>	No <input type="checkbox"/>
7	Drivelines - See service form 80-627, Driveline Service & Maintenance.	OK <input type="checkbox"/>	No <input type="checkbox"/>
8	Have ANSUL representative inspect and recertify fire suppression system	OK <input type="checkbox"/>	No <input type="checkbox"/>
9	Drain and fill differential	OK <input type="checkbox"/>	No <input type="checkbox"/>
10	Drain and fill planetaries	OK <input type="checkbox"/>	No <input type="checkbox"/>
11	Change the recirculating air filter elements	OK <input type="checkbox"/>	No <input type="checkbox"/>
12	Remove, clean and reinstall the air filters on the evaporators	OK <input type="checkbox"/>	No <input type="checkbox"/>

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Annual Maintenance (2000 Hours)

Perform these checks annually, or after 2000 hours, whichever occurs first.

1	Repeat the 1,000 hour check	OK <input type="checkbox"/>	No <input type="checkbox"/>
2	Change hydraulic oil	OK <input type="checkbox"/>	No <input type="checkbox"/>
3	Drivelines - Inspect slip splines for wear (backlash). See service form 80-627, Driveline Service & Maintenance	OK <input type="checkbox"/>	No <input type="checkbox"/>
4	Have Allied representative inspect machine (annually)	OK <input type="checkbox"/>	No <input type="checkbox"/>
5	Check wet disc brake lining wear	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Inspect wheel bearing, readjust if necessary	OK <input type="checkbox"/>	Readjust <input type="checkbox"/>
7	Perform automatic clutch calibration, transmission	OK <input type="checkbox"/>	No <input type="checkbox"/>
8	Obtain coolant sample (level 2) for analysis	OK <input type="checkbox"/>	No <input type="checkbox"/>

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Every 3000 Hours

Perform these checks every 3000 hours or 3 years, whichever comes first.

1*	Clean/Test aftercooler core	OK <input type="checkbox"/>	No <input type="checkbox"/>
2*	Replace coolant temperature regulator	OK <input type="checkbox"/>	No <input type="checkbox"/>
3*	Inspect crankshaft vibration damper	OK <input type="checkbox"/>	No <input type="checkbox"/>
4*	Check driven equipment	OK <input type="checkbox"/>	No <input type="checkbox"/>
5*	Check/Replace electronic unit injector	OK <input type="checkbox"/>	No <input type="checkbox"/>
6	Clean engine	OK <input type="checkbox"/>	No <input type="checkbox"/>
7	Inspect engine mounts	OK <input type="checkbox"/>	No <input type="checkbox"/>
8*	Check engine protective devices	OK <input type="checkbox"/>	No <input type="checkbox"/>
9*	Clean/Inspect speed timing sensor	OK <input type="checkbox"/>	No <input type="checkbox"/>
10*	Check engine valve lash	OK <input type="checkbox"/>	No <input type="checkbox"/>
11*	Inspect engine valve rotators	OK <input type="checkbox"/>	No <input type="checkbox"/>
12	Lubricate fan drive bearing	OK <input type="checkbox"/>	No <input type="checkbox"/>

* Service must be performed by a Caterpillar representative.

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Overhaul Schedule

To maximize efficiency and minimize downtime and costly failures, Allied Systems Company recommends the following overhaul chart to be used. When followed closely, your equipment will last longer with less unexpected downtime. Contact your local Wagner dealer for the kits necessary to overhaul your drivetrain components or allow your dealer to overhaul the components for you. They are authorized to overhaul and test your components.

It is recommended that some components be overhauled at the same time, even if they might have some time before their required rebuild, to minimize downtime. Many components may have to be removed in order to gain access to others so the parts should all be rebuilt together. This will save you from having to tear the machine down again a few thousand operation hours later.

During the overhaul process, make sure all parts are thoroughly cleaned before installation. Parts that do not receive this cleaning can cause the lubricant to become contaminated, which leads to much shorter service life.



The overhaul schedule below is applicable when all preventive maintenance and oil testing is performed and only when genuine Wagner OEM replacement parts and lubricants are used. Major component overhauls may need to be performed more frequently if preventive maintenance is not performed, non-OEM replacement parts are used, and/or the machine is operated frequently on slopes, uneven terrain, or in poor traction conditions.

Component	Hours/Fuel Consumption in Liters
Engine	20,000/585,000
Transmission	20,000
Converter	10,000
Pumps	10,000
Axle	20,000
Brakes	40,000
Hydraulic Cylinders - Reseal	10,000
Hoses and Fittings	20,000

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