



1.2 Maintenance overview

Daily/weekly maintenance

Work to be performed by the operator:	Daily	Every week
Clean the machine	•	
Clean the air filter	•	
Check the machine for general damage	•	
Checking the coolant level	•	
Checking the engine-oil level	•	
Check the engine for leaks		•
Checking the hydraulic oil level	•	
Check the tire condition and pressure		•
Check all bolts for tightness		•
Check the wheel bolts		•
Check the braking system for correct function	•	
Check the brake fluid		•
Check the washer system and wiper water level	•	
Check the seat belt	•	
Check the instruments and indicator lights, and the acoustic warning devices for correct function	•	
Check the electrical system and lights for correct function	•	
Check the brake/inching pedal for correct function	•	
Check the steering system	•	
Check control levers and switches for correct function	•	
Check the attachments	•	
Check the exhaust for malfunctions and excessive smoke		•
Perform grease lubrication according to the lubrication plan, including of the attachments		•
Check the protective ROPS/FOPS structure		•
Clean the preliminary separator of the fuel filter		•
Check the machine axles for leaks		•
Check the hydraulic oil and water radiator for leaks and dirt, clean it if necessary		•
Check the attachments for safety and correct function		•
Check the routing of the hoses, pipe lines and electric lines		•
Check the air filter and intake hose		•
Check the engine mounting and axle mounting		•
Check the slide plates of the loader unit (only machines with telescopic loader unit) for damage and protect them with a dry lubricating spray or grease against corrosion		•
Perform a general safety check, General safety check on page 1-21		•



Inspection schedules

Inspection after 30 operating hours

NOTICE

The maintenance and inspection personnel must have specialized knowledge about the maintenance and inspection work on the machine.

- Observe the Operator's Manual of the engine.
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Information

Ensuring correct machine function requires having the initial inspection performed by an authorized service center after 30 operating hours, however 3 months at the latest after putting the machine into operation.

**Work to be performed (please mark with a cross) after 30 operating hours**

- Check the gearbox, engine and hydraulic system for leaks
- Check the hydraulic, water and engine oil radiator for dirt
- Check the coolant level and antifreeze
- Check the tension and condition of the V-belt
- Check the hoses and pipes for secure seating
- Check the routing of the hoses and pipes
- Check the piston rods of the hydraulic cylinders
- Check the routing of Bowden cables and electric cables
- Retighten all bolts; pay particular attention to the engine mounting, axle mountings and cardan shaft
- Check the instruments and acoustic warning devices
- Check the electrical system
- Check the brake/inching pedal and parking brake, adjust if necessary
- Check the steering system
- Check the light system (if equipped)
- Check the idling speed
- Check the valve clearance, adjust if necessary (Perkins 1004-4 only)
- Check the door and engine cover locking mechanism for correct operation
- Check the protective ROPS structure
- Check the tire condition
- Replace the engine oil and engine oil filter
- Clean the air filter, replace it if necessary
- Replace the hydraulic oil return filter
- Perform grease lubrication according to the lubrication plan
- Lubricate the cardan shaft
- Lubricate with oil: all levers, Bowden cables and hinges
- Check all oil levels, add oil if necessary



Inspection after 500 operating hours

NOTICE

The maintenance and inspection personnel must have specialized knowledge about the maintenance and inspection work on the machine.

► Observe the Operator's Manual of the engine.



Information

This inspection is performed once after the first 500 operating hours. If the machine does not reach 500 operating hours during its first year of operation, perform this inspection once 12 months after putting the machine into operation.

Work to be performed (please mark with a cross) at 500 operating hours

Check the gearbox, engine and hydraulic system for leaks

Check the engine and hydraulic oil radiator for dirt

Check the coolant level and antifreeze

Check the tension and condition of the V-belt

Check the routing of the hoses and pipes

Check the piston rods of the hydraulic cylinders

Check the air filter hose

Examine the intake muffler for damage or exceptional wear

Check the routing of Bowden cables and electric cables

Retighten all bolts; pay particular attention to the engine mountings, axle mountings and cardan shaft

Check the rubber buffers on the engine mountings

Check the acid level of the battery

Check the instruments, indicator lights and acoustic warning devices

Check the electrical system

Check the brake/inching pedal and parking brake, adjust if necessary

Check the steering system

Check the light system (if equipped)

Check the exhaust system

Check the pivot pins and joint bushes

Check the center pivot bolts and bearings

Check the idling speed

Check the engine cover and door locking mechanisms for correct function, adjust them if necessary

Check the tire condition and tire pressure

Replace the engine oil and engine oil filter

Replace the fuel filter, clean the fuel prefilter

Clean the fuel feed pump (Deutz engines only)

**Work to be performed (please mark with a cross) at 500 operating hours**

Clean the air filter, replace it if necessary

Setting valve clearance

Change the hydraulic oil

Replace the hydraulic oil return filter

Replace the hydraulic oil pressure filter

Replace the oil in the transfer gearbox

Replace the oil in the axles

Perform grease lubrication according to the lubrication plan

Lubricate the cardan shaft

Lubricate with oil: all levers, Bowden cables and hinges

Check all oil/fluid levels

The following inspection intervals apply after this inspection:

Inspection intervals**NOTICE**

The maintenance and inspection personnel must have specialized knowledge about the maintenance and inspection work on the machine.

► Observe the Operator's Manual of the engine.

**Information**

The maintenance specified in the inspection schedule must be performed according to whichever interval is reached first, in other words, depending on whether the operating hours are reached or the time interval specified in the schedule is reached.



Work to be performed	Operating hours: 250, 750, 1000, 1250, 1750, 2000, 2250, 2750, 3000, etc.	Operating hours: 1500, 2500, 3500, 4500, etc.	Once a month	Once a year
Check the gearbox, engine and hydraulic system for leaks	•	•	•	•
Check the hydraulic and water radiators for dirt	•	•	•	•
Check the coolant and antifreeze levels	•	•	•	•
Check the tension and condition of the V-belt	•	•	•	•
Check the routing of the hoses and pipes		•		•
Check the piston rods of the hydraulic cylinders		•		•
Check the air filter hose	•	•	•	•
Examine the intake muffler for damage or exceptional wear		•		
Check the routing of Bowden cables and electric cables		•		•
Retighten all bolts; pay particular attention to the engine mountings, axle mountings and cardan shaft		•		•
Check the acid level of the battery	•	•	•	•
Clean the battery terminals and check the acid density		•		•
Check: Instruments, indicator lights + acoustic warning devices	•	•	•	•
Check the electrical system	•	•	•	•
Check the service brake and parking brake, adjust them if necessary	•	•	•	•
Check the hydraulic steering	•	•	•	•
Check the light system (if equipped)	•	•	•	•
Check the exhaust system		•		•
Check the pivot pins and joint bushes		•		•
Check the center pivot bolts and bearings		•		•
Check the pressure relief valves of the hydraulic system		•		•
Check the idling speed	•	•	•	•
Check the speed under load and without load		•		•
Check the starter and alternator (engine manual)		•		•
Check the glow plugs and injectors (engine manual)		•		•
Check the valve clearance, adjust it if necessary		•		
If the machine is equipped with a Deutz engine: Check the toothed belt for the engine management and, if installed, for the auxiliary drive (do not retighten, replace every 5 years or after 4500 operating hours)				
Check the injectors (every 3000 operating hours)				
Check the engine cover lock for correct function, adjust it if necessary	•	•	•	•
Check the protective ROPS/FOPS structure		•		•
Check the tire condition and tire pressure	•	•	•	•



Work to be performed	Operating hours: 250, 750, 1000, 1250, 1750, 2000, 2250, 2750, 3000, etc.	Operating hours: 1500, 2500, 3500, 4500, etc.	Once a month	Once a year
Replace the engine oil and engine oil filter (Perkins and Deutz engines: every 500 operating hours)				•
Replace the engine oil and engine oil filter (Yanmar engines: every 250 operating hours)	•	•		
Replace the fuel filter – clean the pre-filter		•		•
Clean the fuel feed pump (Deutz engines)		•		•
Clean the air filter, replace it if necessary	•	•	•	•
Change the hydraulic oil		•		•
Replace the breather filter of the hydraulic oil reservoir		•		
Replace the hydraulic oil return filter		•		•
Pressure filter (initial replacement after 500 operating hours, further replacement as required*)				
Replace the oil in the transfer gearbox		•		•
Replace the oil in the axles		•		•
Replace the coolant – every 2 years				
All grease zerks lubricated? Lubricate if necessary	•	•	•	•
Lubricate the cardan shafts (universal joint and sliding joint)	•	•	•	•
Lubricate with oil: all levers, Bowden cables and hinges	•	•	•	•
Check all oil/fluid levels	•		•	
Clean the cabin breather filter, replace it if necessary				•
Check according to the Ordinance on Industrial Safety and Health		•		•
Replace the diesel particulate filter every 3,000 operating hours				

* Required if there is damage in the hydraulic system that is supposed to be caused by strong abrasive wear

Valve clearance Perkins Series 400: inlet and exhaust 0.2 mm on a cold engine

Valve clearance Perkins Series 1000: inlet 0.2 mm and exhaust 0.45 mm on a cold engine

Valve clearance Deutz Series 2011: inlet 0.3 mm and exhaust 0.5 mm on a cold engine