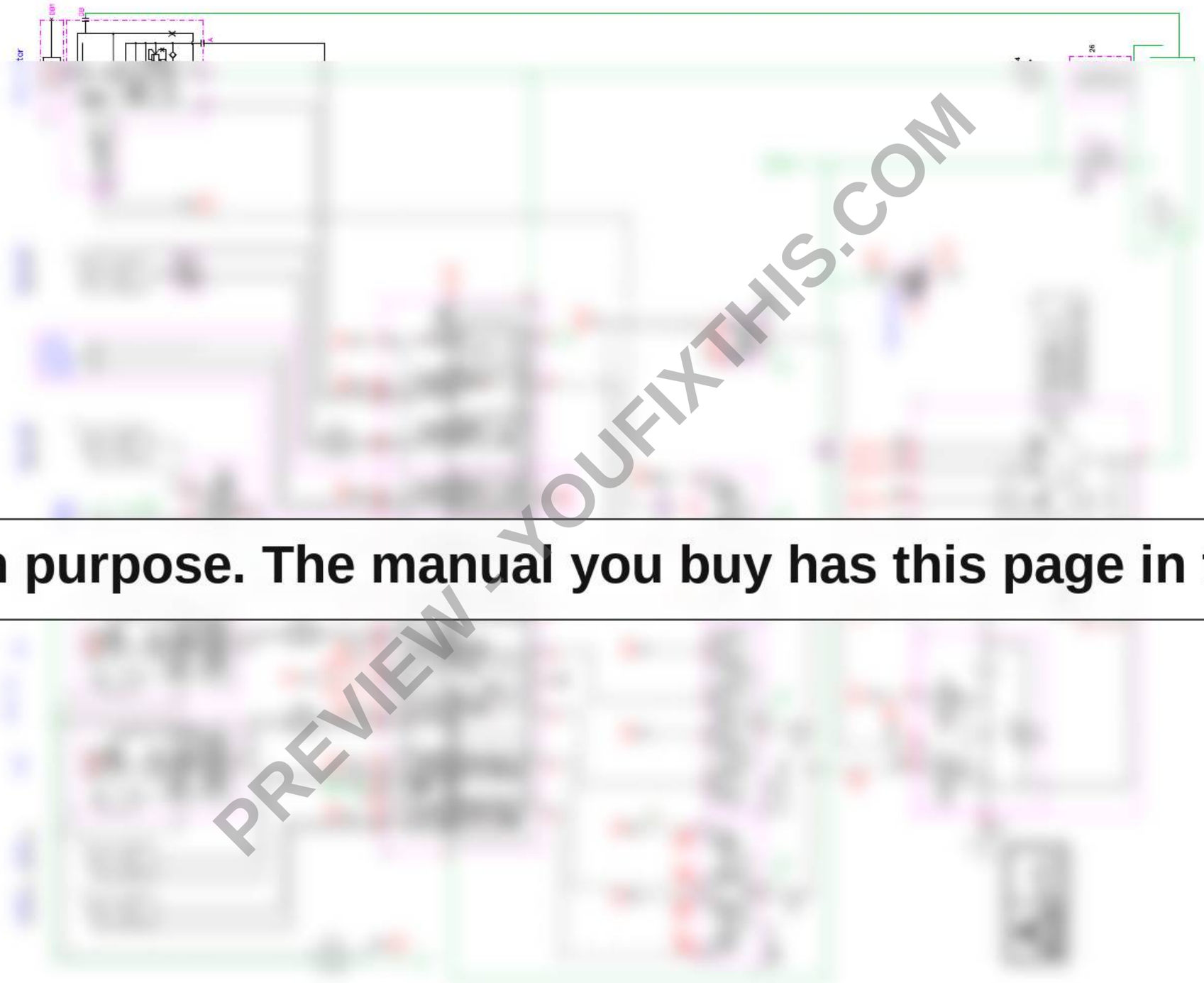


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Hydraulics diagram

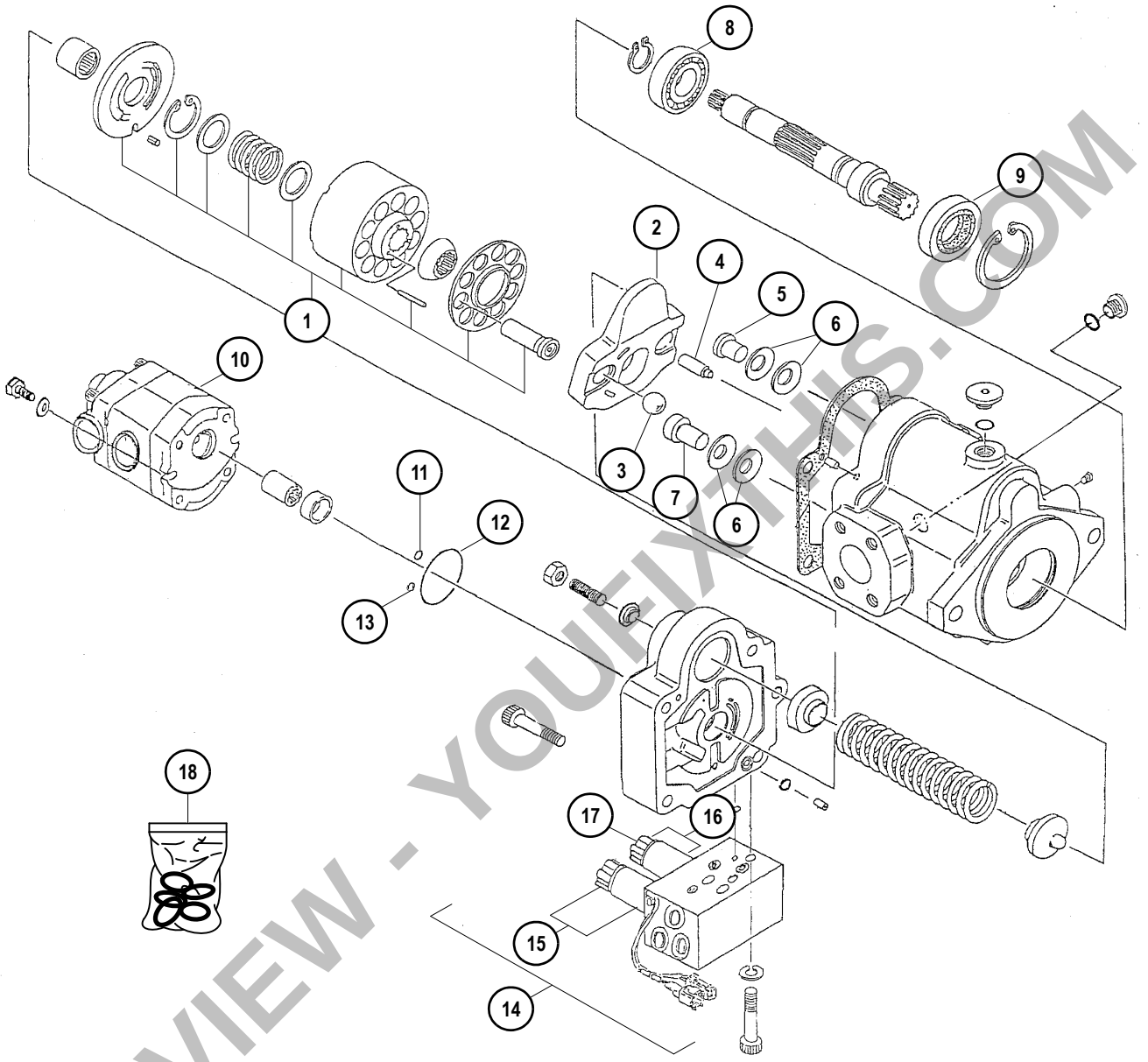


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Pump unit: exploded view



Pos.	Designation	Pos.	Designation
1	Drive unit	10	Gear pump
2	Swash plate	11	O-ring
3	Ball	12	O-ring
4	Stop stud	13	O-ring
5	Stop pin	14	Pilot oil supply unit
6	Spring	15	Solenoid switch
7	Stop pin	16	Solenoid switch
8	Grooved ball bearing	17	Fastening screw
9	Rotary shaft lip seal	18	Variable displacement pump sealing kit

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Model-specific tightening torques

EZ38		Nm (ft.lbs.)
Live ring	M14 10.9	180 (133)*

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Changing engine oil

Caution!

Caution when draining hot engine oil –

Burn hazard!

☞ *Wear protective gloves*

☞ *Use suitable tools*

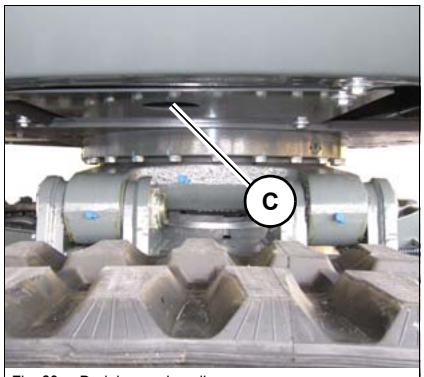


Fig. 29: Draining engine oil

☞ *Let the engine run until it reaches its operating temperature (oil temperature about 80 °C/176 °F).*

☞ *Stop and park the machine. Stop the engine. See "Preparing lubrication".*

☞ *Open the engine cover.*

☞ *Place a suitable container under oil drain plug **C**.*

☞ *Carefully unscrew oil drain plug **C** with a suitable tool.*

☞ If the machine is equipped withe service valve option, install the drain hose (supplied with the machine).

☞ *Completely drain the oil.*

☞ Replace the sealing ring of oil drain plug **C**.

☞ *Screw in oil drain plug **C** and tighten it with a suitable tool.*

☞ *Clean the area around oil filler cap **B** with a lint-free cloth.*

☞ *Add new engine oil at filler cap **B**.*

☞ *Start the engine and let it run briefly at low speed.*

☞ *Stop the engine.*

☞ *Wait about 5 minutes until all the oil has run into the oil sump.*

☞ *Check the oil level and add engine oil if necessary.*

☞ *Completely remove all oil spills from the engine.*

☞ *Close the engine cover.*

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

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4.15 Engine malfunctions

Problem	Possible causes
Engine does not start or is not easy to start	No fuel
	Air in fuel system
	Wrong SAE grade of engine lubrication oil
	Fuel grade does not comply with specifications
	Malfunctioning or empty battery
	Loose or oxidized cable connections in starter circuit
	Malfunctioning starter, or pinion does not engage
	Wrong valve clearance
	Malfunctioning fuel injector
	Malfunctioning starting relay
	Malfunctioning glow plug
	Malfunctioning solenoid switch
	Cutoff solenoid does not attract
	Cutoff solenoid without current
	High pressure created immediately in the hydraulic system
Engine starts, but does not run smoothly or faultless	Fuel grade does not comply with specifications
	Wrong valve clearance
	Injection line leaks
	Malfunctioning fuel injector
	Air in fuel system
Engine overheats. Temperature warning system responds	Oil level too low
	Damaged water pump
	Oil level too high
	Dirty air filter
	Dirty radiator fins
	Malfunctioning fan, torn or loose V-belt
	Malfunctioning thermostat
	Resistance in cooling system too high, flow capacity too low
	Malfunctioning fuel injector
Insufficient engine output	Oil level too high
	Fuel grade does not comply with specifications
	Dirty air filter
	Wrong valve clearance
	Air in fuel system
	Injection line leaks
	Malfunctioning fuel injector

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3.5 Maintenance plan

Daily maintenance (operator)	
Inspection work (Check the following fluids and lubricants, check the oil levels after a test run and add oil if necessary)	Page
Check the fluids and lubricants (engine oil, engine coolant, hydraulic oil)	*3-16*, *3-21*, *3-44*
Check the radiators (for example water, hydraulic oil) for dirt, clean them if necessary	*3-24*
Check the fuel radiator for dirt, clean it if necessary	*3-24*
Lubricate the machine according to the lubrication plan	*3-9*
Check the water separator and fuel filter: drain water if necessary (see sight glass)	*3-10*
Check the track tension and retension the tracks if necessary	*3-50*
Check the engine air intake	*3-27*
Check pin lock	--
Check line fixtures	--
Check the indicator lights and acoustic warning device	--
Check the swivel unit brake	--
Check the hydraulic couplings for dirt	--
Check the threaded fittings of the protective structures (for example the cabin) for tightness	--
Clean the lights/light system, signaling system	--
Option	
Check the safe load indicator	--
Check the hydraulic quickhitch (Easy Lock) acoustic warning system	--
Lubricate the Powertilt according to the lubrication plan	*3-9*
Adjust the mirrors correctly, clean them and check them for damage, check the fastening screws and tighten them if necessary	--
Check the condenser for dirt, clean it if necessary	--
Leakage check	
Check for tightness, leaks and chafing: pipes, flexible lines and threaded fittings of the following assemblies and components. Repair if necessary	Page
Engine and hydraulic system	--
Traveling drive	--
Cooling systems, heating and hoses (visual check)	--
Option	
Hydraulic quickhitch (Easy Lock) and Powertilt (hoses, valve)	--
Visual check	
Correct function; deformations, damage, surface cracks, wear and corrosion	Page
Check the exhaust system for damage	--
Check the insulating mats in the engine compartment for damage	--
Check the cabin and protective structures for damage (for example the Front Guard, FOPS)	--
Check the tracks for damage	--
Check the travel gear for damage (for example the track rollers, insert rolling bearings)	--
Check the piston rods of the cylinders for damage	--
Check the seat belt for damage	--

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3.8 Engine lubrication system

Important information regarding the engine lubrication system

Notice!

Engine damage due to incorrect engine oil level.

- The oil level must be between the MIN and MAX marks.

Notice!

Damage due to wrong engine oil.

- Use engine oil according to the Fluids and lubricants list.
- Have the oil changed only by a Wacker Neuson service center.

Notice!

Damage due to adding engine oil too quickly.

- Add the engine oil slowly so it can go down without entering the intake system.

Notice!

Check the oil level once a day. We recommend checking it before starting the engine. After stopping a warm engine, wait at least 5 minutes before checking.

Checking the engine oil level

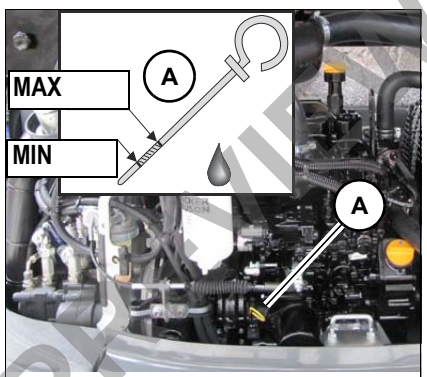


Fig. 27: Checking the engine oil level

☞ *Stop and park the machine. Stop the engine. See "Preparing lubrication".*
☞ *Open the engine cover.*
☞ *Clean the area around the oil dipstick with a lint-free cloth.*
☞ *Pull out oil dipstick* **A**.
☞ *Wipe it with a lint-free cloth.*
☞ *Push oil dipstick* ***A*** *back in as far as possible.*
☞ *Withdraw it and read off the oil level.*
➥ The oil level must be between the MIN and MAX marks.
➥ Add engine oil if necessary.
☞ *Push oil dipstick* ***A*** *back in as far as possible.*
☞ *Close and lock the engine cover.*

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4.21 Checking the injection nozzles

Pressure check

☞ *Remove the injection line and the injection nozzle.*

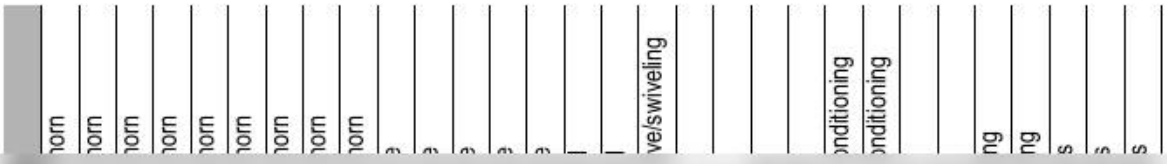




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