WEBM008500

SHOP MANUAL

WH609-1E0 WH613-1E0 WH713-1E0 WH714H-1E0 WH716-1E0

TELESCOPIC HANDLER

MODEL	SERIAL NUMBER
WH609-1E0	395F61003 and up
WH613-1E0	395F61003 and up
WH713-1E0	395F71003 and up
WH714H-1E0	395F71003 and up
WH716-1E0	395F71003 and up

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Utility

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10 STRUCTURE AND FUNCTION

ENGINE-TRANSMISSION COUPLING 2
POWER TRAIN 3
TRANSMISSION 5
FRONT AXLE 31
REAR AXLE 35
BRAKE PUMPS 39
STEERING SYSTEM (4WS) 40
STEERING UNIT 44
HYDRAULIC DIAGRAM 45
HYDRAULIC PUMP 46
CONTROL VALVE 50
PPC VALVE 51
SOLENOID VALVES 54
SAFETY VALVES 60
CYLINDERS 67
AIR CONDITIONING SYSTEM 74
CLIMATE CONTROL SYSTEM OPERATION 75

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STANDARD SPECIFICATIONS

- **FOR ENGINE**

Machine model			WH609 - WH613 - WH713 WH714H - WH716	
Check item	Test conditions	Unit	Standard value	Permissible value
Engine speed (no load condition)	Maximum speed Minimum speed Operating speed	rpm rpm rpm	2400±50 1050±50 2200±50	2400±50 1050±50 2200±50
Exhaust gas colour	Abrupt acceleration At maximum speed	Bosch index	–	–
Valve lash	Intake (20 °C) Exhaust (20 °C)	mm mm	0.25±0.05 0.50±0.05	0.25±0.05 0.50±0.05
Compression pressure (oil SAE30)	Oil temperature 69–72°C (Engine speed)	bar (rpm)	–	–
Pressure in housing (oil SAE30)	With recirculation At maximum speed	mm H_2O	–	–
Engine oil pressure	At maximum speed At minimum speed	bar (kPa) bar (kPa)	3.1 (31.0) 0.7 (70)	–
Engine oil temperature	All speeds	°C	–	–
Injection advance	B.T.D.C.	mm	1.00	1.00±0.05

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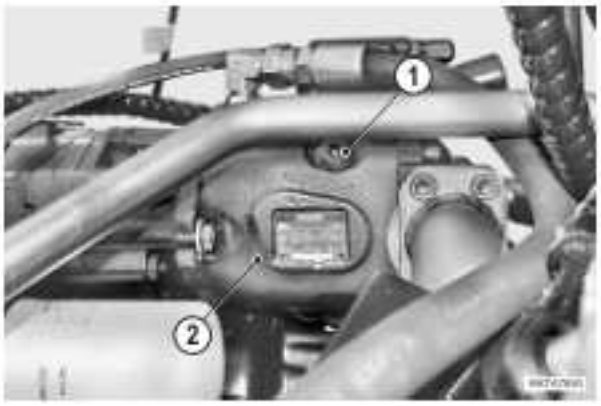
BLEEDING AIR FROM CIRCUITS

• Pump housing fill

★ The pump housing must be filled:
- a - Whenever the pump is removed.
- b - Whenever the drain hose or suction pipe is removed or replaced.
- c - Whenever the hydraulic oil is changed or the tank undergoes maintenance.

1 - Remove the cap (1) and introduce hydraulic oil into the pump housing (2) until the level reaches the locating hole.

2 - Reinstall the cap (1).



• Bleeding air from cylinders

★ The air bleeding procedure should be performed before operating the machine in normal conditions whenever the hydraulic cylinders or the pipes/hoses connected to them are removed.

★ Tackle one movement at a time, starting with the main cylinders (boom extension and boom up).

1 - Start the engine and run the engine at high speed for about 5 minutes to heat the oil.

2 - Return the engine to idle and cause the 1st piston you want to bleed to extend and retract several times.

★ Extend and retract the pistons to within 100 mm approx. of the limit stops.

3 - Stop the engine, check and top up the oil level.

4 - Run the engine at maximum speed and repeat the procedures described in step 2. Return the engine to idle and allow the piston to travel its full stroke until the hydraulic pump is under max. pressure.

5 - Repeat the procedures (starting from step 2) on all cylinders and make sure you frequently check the oil level.

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RADIATOR-EXCHANGER ASSEMBLY

Removal

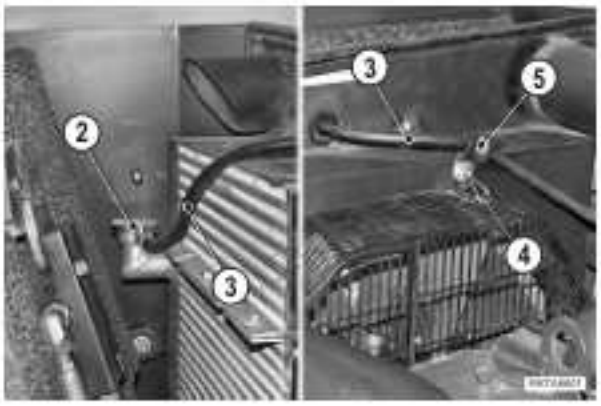
1 - Unscrew the cap (1) and drain the coolant liquid. [*1]

Coolant liquid: 20 ℓ approx.



2 - Remove the radiators hood.
(For details, see "RADIATOR HOOD").

3 - Disconnect the hose (3) connecting to the expansion tank from the radiator cap (2). Remove the screw (4); remove the hose clamp (5), and slide the hose (3) out.



4 - Disconnect the hose (6) from the radiator-intercooler assembly and remove the hose.

5 - Remove the air inlet hose (7) and disconnect the turbocompressor feed hose (8).

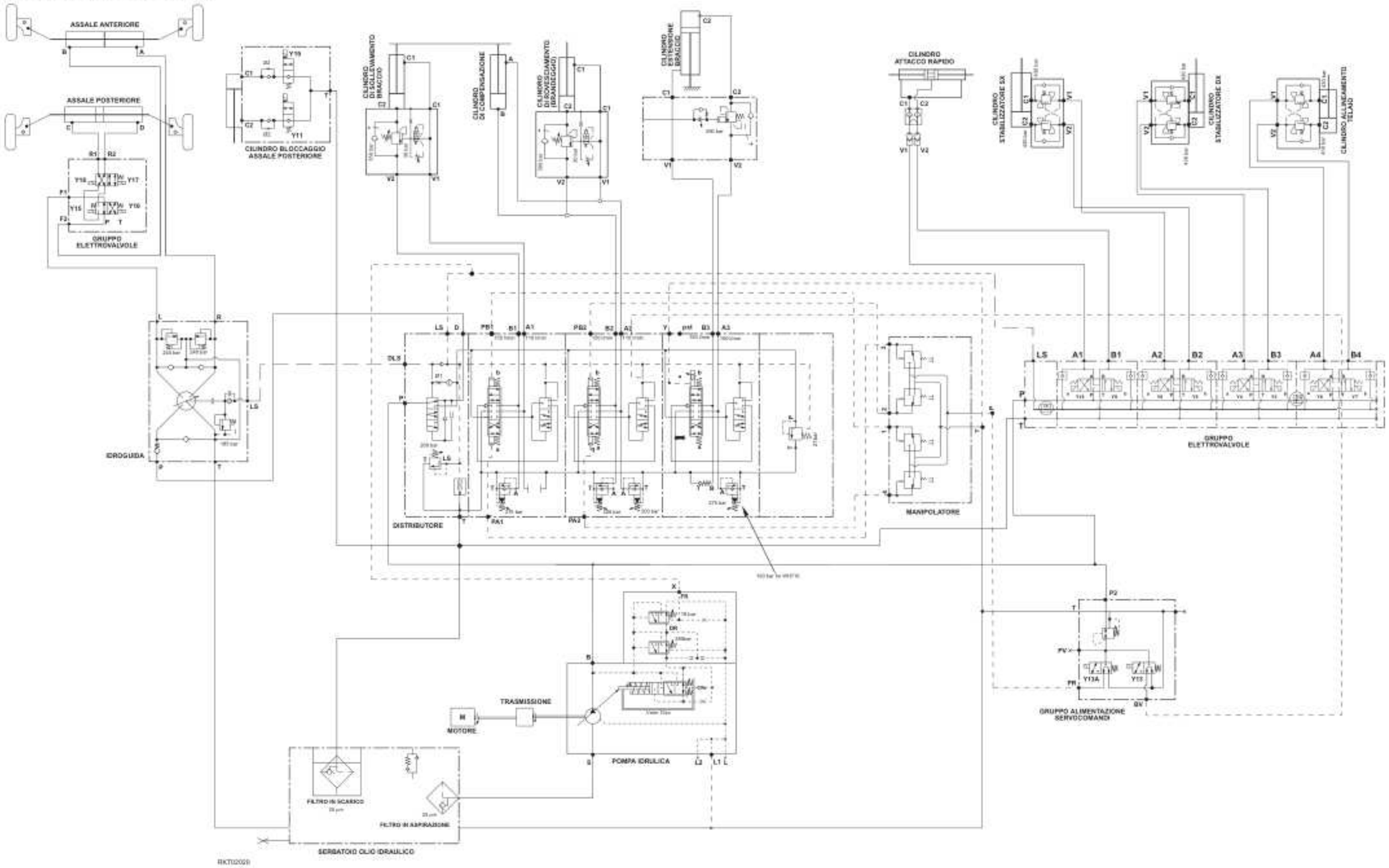


6 - Remove the retaining screws and remove the fan guard (9).



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HYDRAULIC DIAGRAM



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