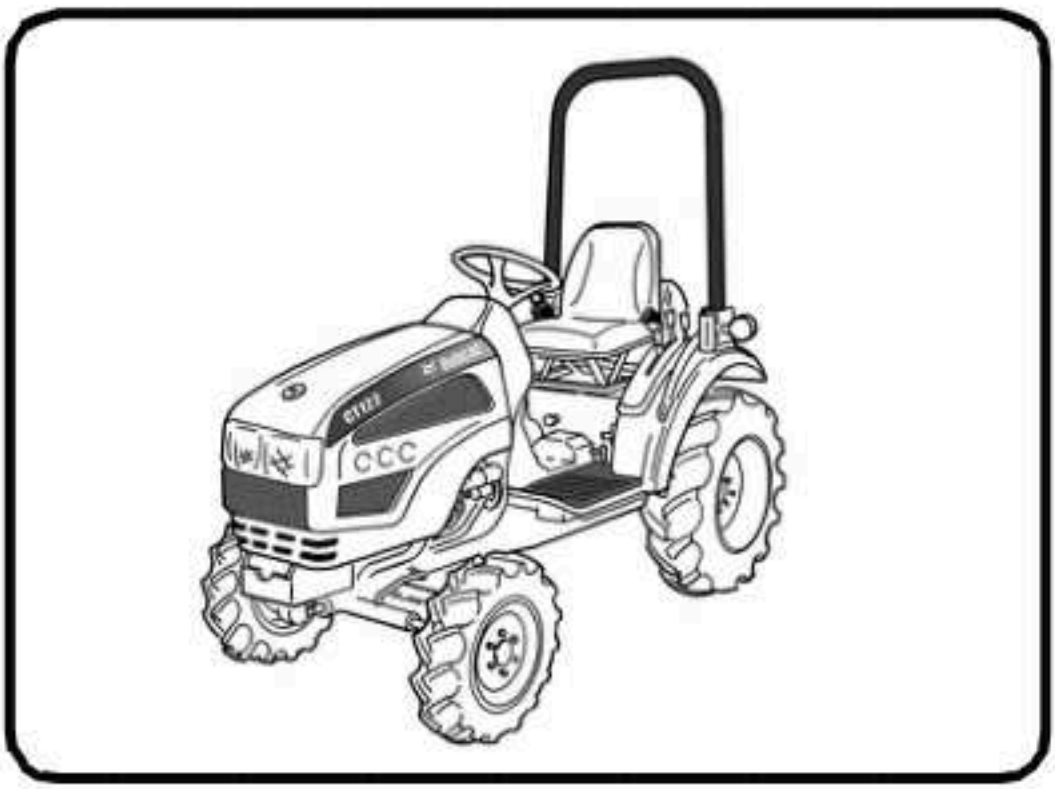
Bobcat®

Service Manual
CT122 Compact Tractor

S/N ABF511001 & Above



6987028 (9-10)

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Troubleshooting The Power Lift Circuit

PROBLEM	CAUSE	CORRECTION
The rockshaft jerks while being raised	Insufficient oil level in the tank	Check the oil level
	Pump inlet filter clogged	Clean or replace the filter
	Infiltration of air into the pump inlet pipe	Check the inlet pipe and any coupling and gasket
Rockshaft does not operate	Adjusting piston or pilot valve stuck	Remove the control valve and unblock the pilot valve and adjusting piston
The rockshaft does not descend over its entire travel	Sensibility adjusted incorrectly	Adjust sensitivity of control valve
	Faulty adjustment of the control lever	Adjust control position lever
The rockshaft does not descend	Hydraulic block switched on	Unscrew the manual lever
	Outlet valve spring damaged	Change the spring
	Piston blocked	Check piston and cylinder
Lifting capacity does not meet specifications	Safety and main relief valves out of calibration	Correct the calibration of the two valves
	Poor pump efficiency	Replace the pump
	Poor control valve efficiency	Overhaul the control valve
	Deterioration of the control valve seal rings	Remove the control valve and replace the external seal rings
The rockshaft supports loads with difficulty; there is arhythmic oscillation when the engine is running; the load descends when the engine is off	Piston gasket worn	Replace the gasket
	Oil leakage from cylinder	Overhaul the cylinder
	Oil leakage from one of the following control valves: non-return valve, outlet valve, and safety valve that protects the cylinder	Remove the control valve and overhaul the following valves: In case of leakage over-haul the control valve
When the arms are in a the upper position, the safety valve (relief valve) place on the body of the rockshaft starts operating	Faulty adjustment of the maximum upper position of Rock Shaft lift arms	Adjust the control lever, limiting the maximum upper position travel

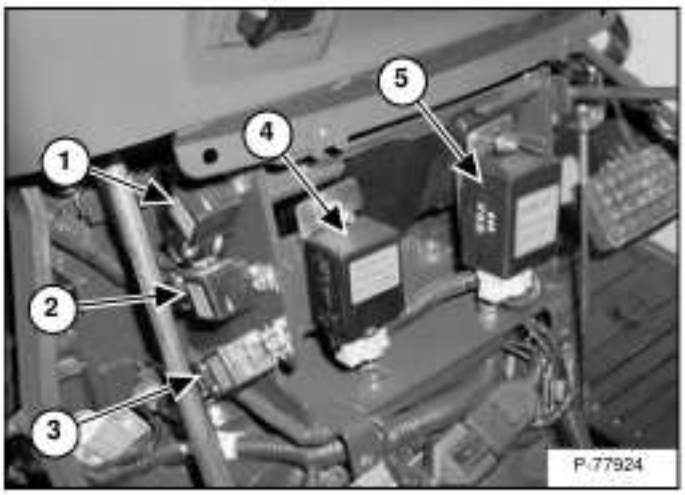
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Fuse And Relay Location - Instrument Panel

Relays

There are three relays used in the electrical circuit. The relays are located below the dash access panel.

Figure 60-10-4



Relay (Item 1) **[Figure 60-10-4]** is for the ignition switch.

Relay (Item 2) **[Figure 60-10-4]** is for the brake light lights.

Relay (Item 3) **[Figure 60-10-4]** is for the high beam.

Preheat controller (Item 4) **[Figure 60-10-4]** for the glow plugs.

Flasher (Item 5) **[Figure 60-10-4]** for hazard / directional lights.

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Specifications (Engine Model 3C100LWB) (Cont'd)

Oil Pump

Item		Factory Specification	Allowable Limit
Engine oil pressure (oil temp. 85 - 95 °C, 185 - 203 °F)	At idle speed	9.95 psi 0.7 kgf/cm2 more than 68.6 kPa	-
	At rated speed	36 - 64 psi 2.5 - 4.5 kgf/cm2 245 - 441 kPa	36 psi 2.5 kgf/cm2 245.2 kPa
Clearance between inner rotor and outer rotor		0.0043 - 0.0059 in. (0,11 - 0,15 mm)	0.0079 in. (0,2 mm)
Radial clearance between outer rotor and pump		0.0028 - 0.0059 in. (0,07 - 0,15 mm)	0.0098 in. (0,25 mm)
End clearance between inner rotor and cover		0.0031 - 0.0051 in. (0,08 - 0,13 mm)	0.00787 in. (0,2 mm)

Thermostat

Valve opening temperature at beginning	176.9° - 182.3° F (80.5° - 83.5° C)
Opened completely (height 0.315 in. (8 mm))	203° F (95° C)

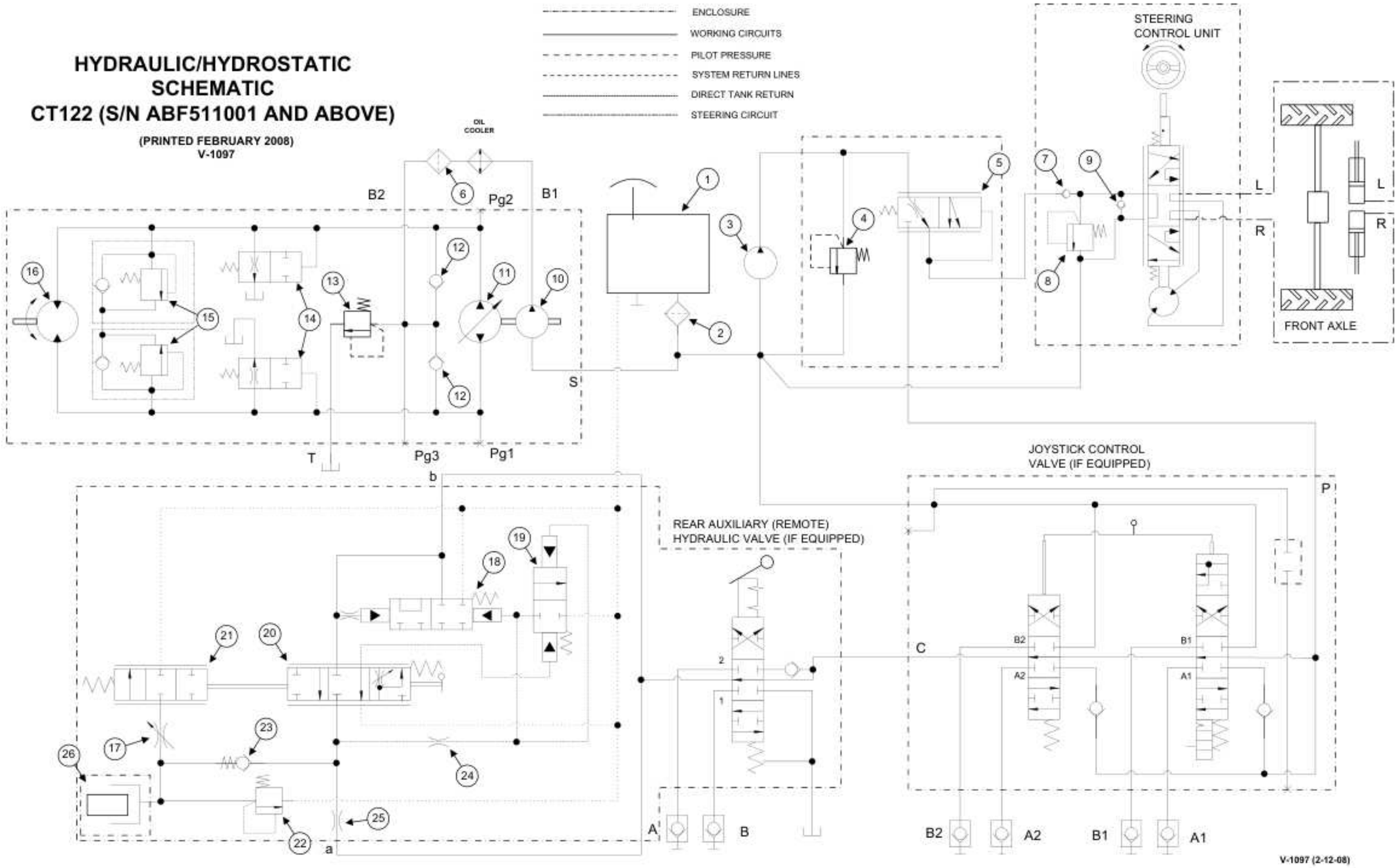
Radiator

Radiator tightness	No leak at 88.3 kPa, 0.9 kgf/cm2, 12.8 psi
Radiator cap tightness	10 seconds or more for pressure from 13 - 9 psi from 0.9 - 0.6 kgf/cm2 falling from 88 - 59 kPa
Fan belt tension [deflection at 78 N (8 kgf, 18 lb.) of force]	0.28 - 0.35 in. (7 - 9 mm)

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HYDRAULIC/HYDROSTATIC SCHEMATIC
CT122 (S/N ABF511001 AND ABOVE)

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