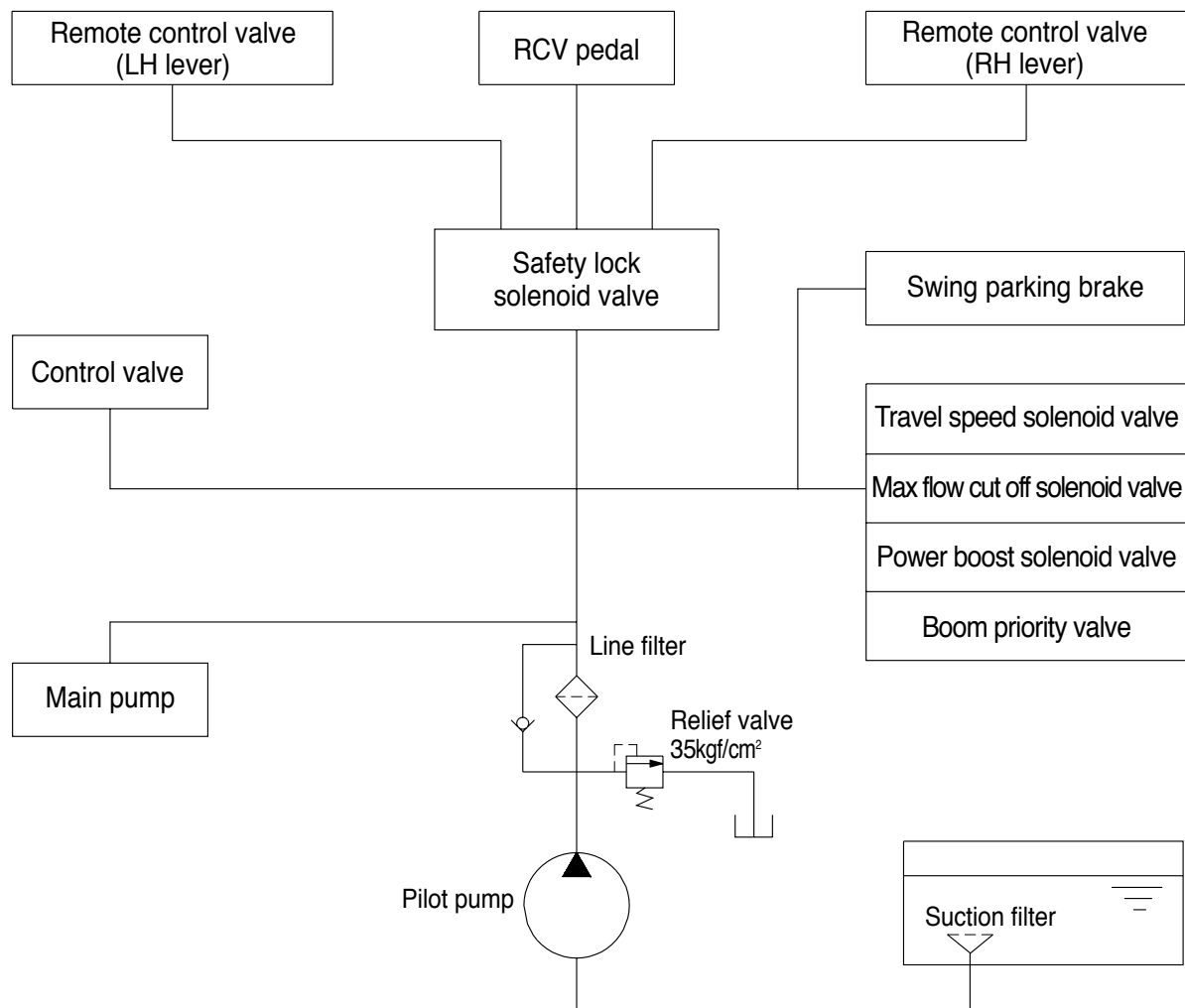


GROUP 3 PILOT CIRCUIT



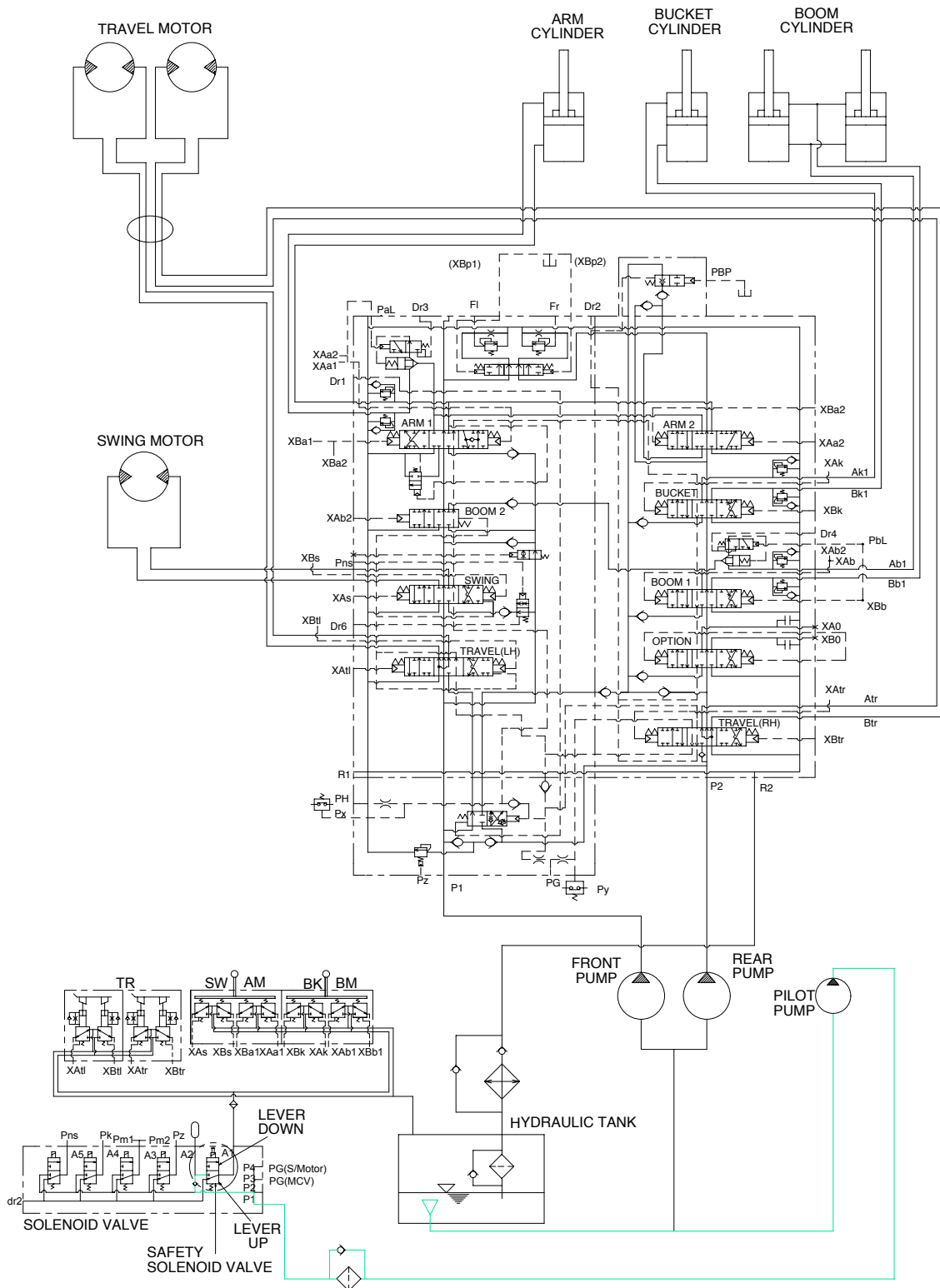
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The pilot circuit consists of suction circuit, delivery circuit and return circuit.

The pilot pump is provided with relief valve, receives the oil from the hydraulic tank through the suction filter.

The discharged oil from the pilot pump flows to the remote control valve through line filter, EPPR valve, solenoid valve assemblies, swing parking brake, main control valve and safety lock solenoid valve.

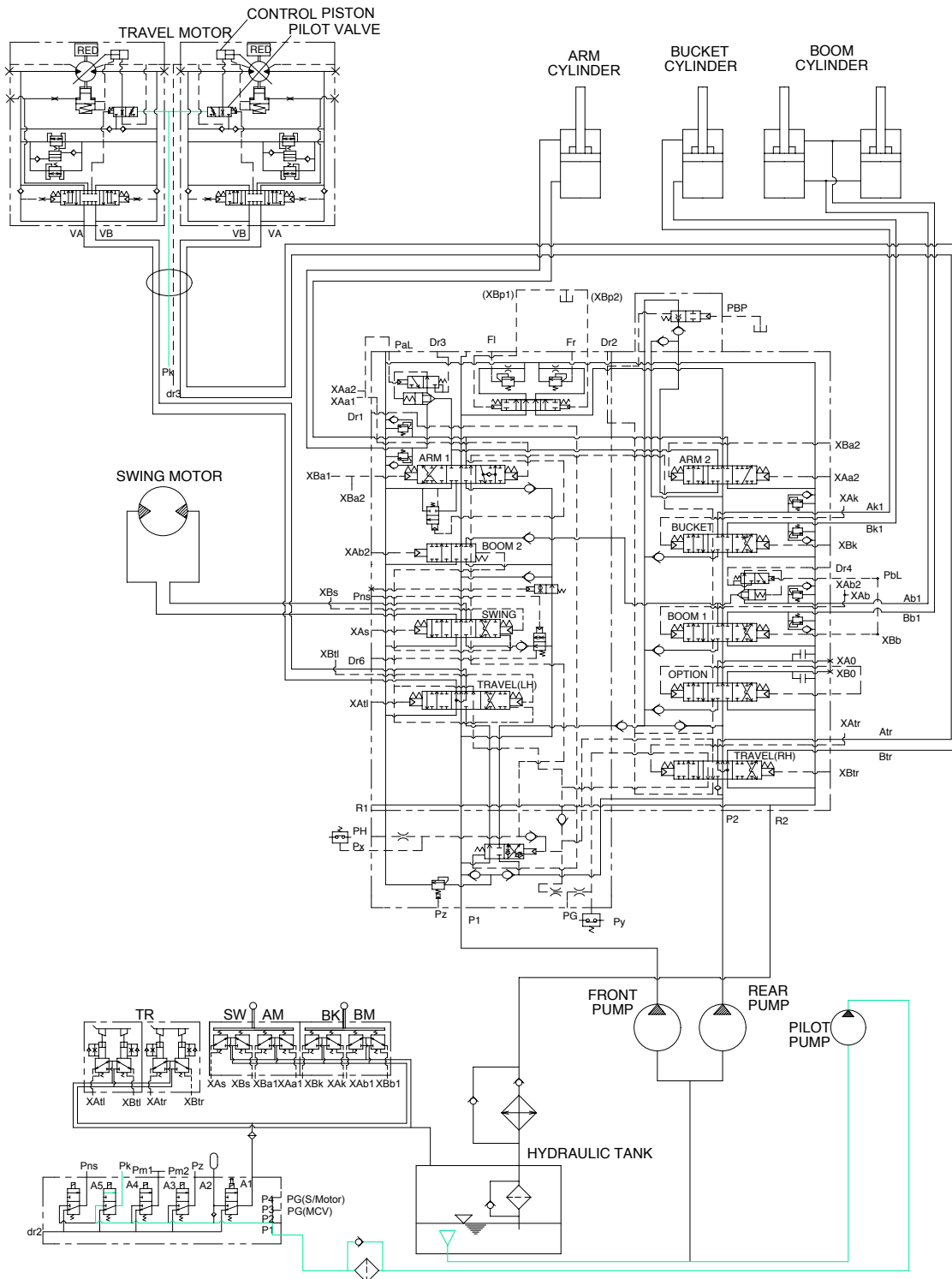
2. SAFETY VALVE(SAFETY LEVER)



When the lever of the safety solenoid valve is moved downward, oil flows into the remote control valve through solenoid valve and line filter.

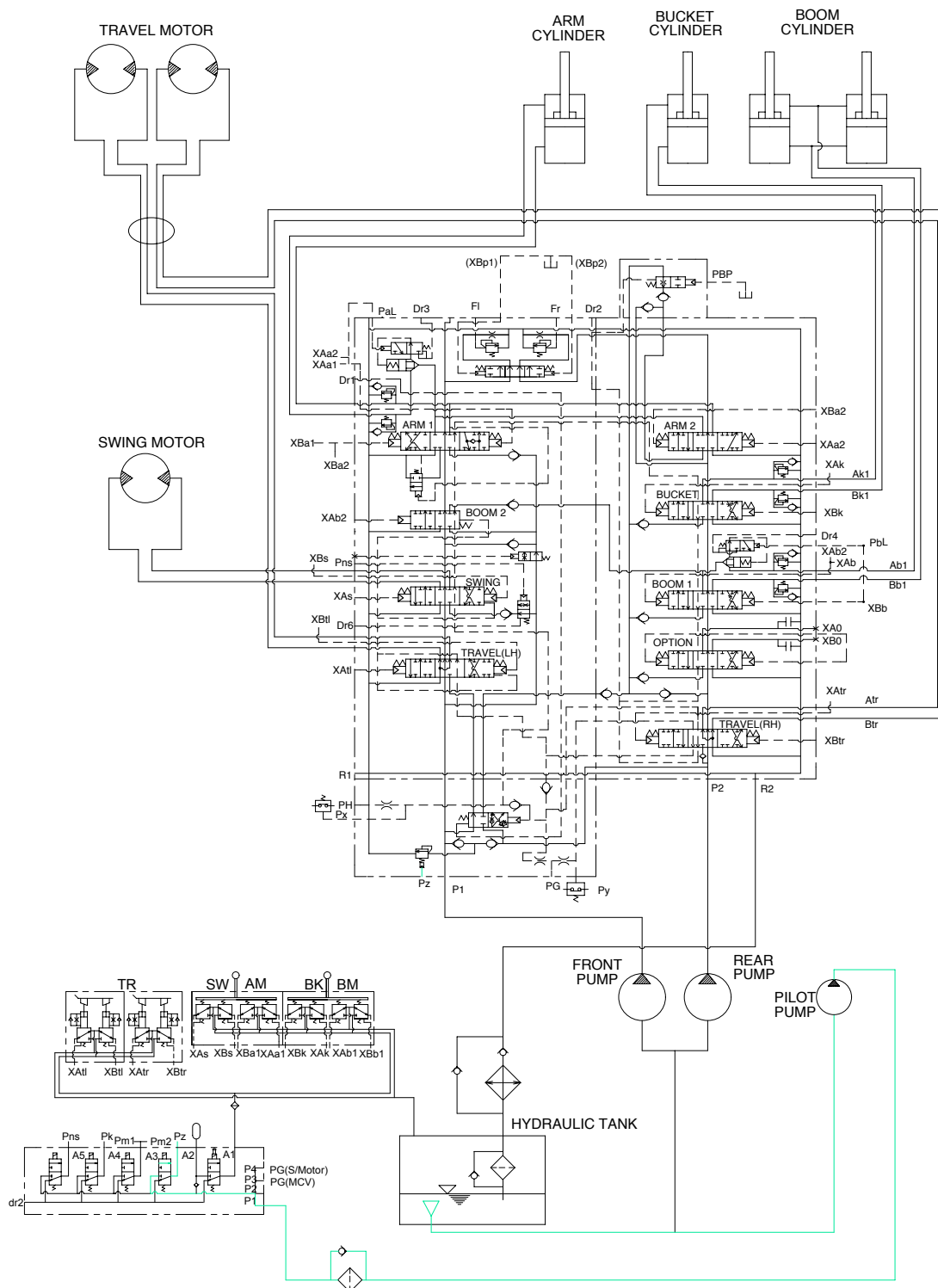
When the lever of the safety solenoid valve is moved upward, oil does not flow into the remote control valve, because of the blocked port.

4. TRAVEL SPEED CONTROL SYSTEM



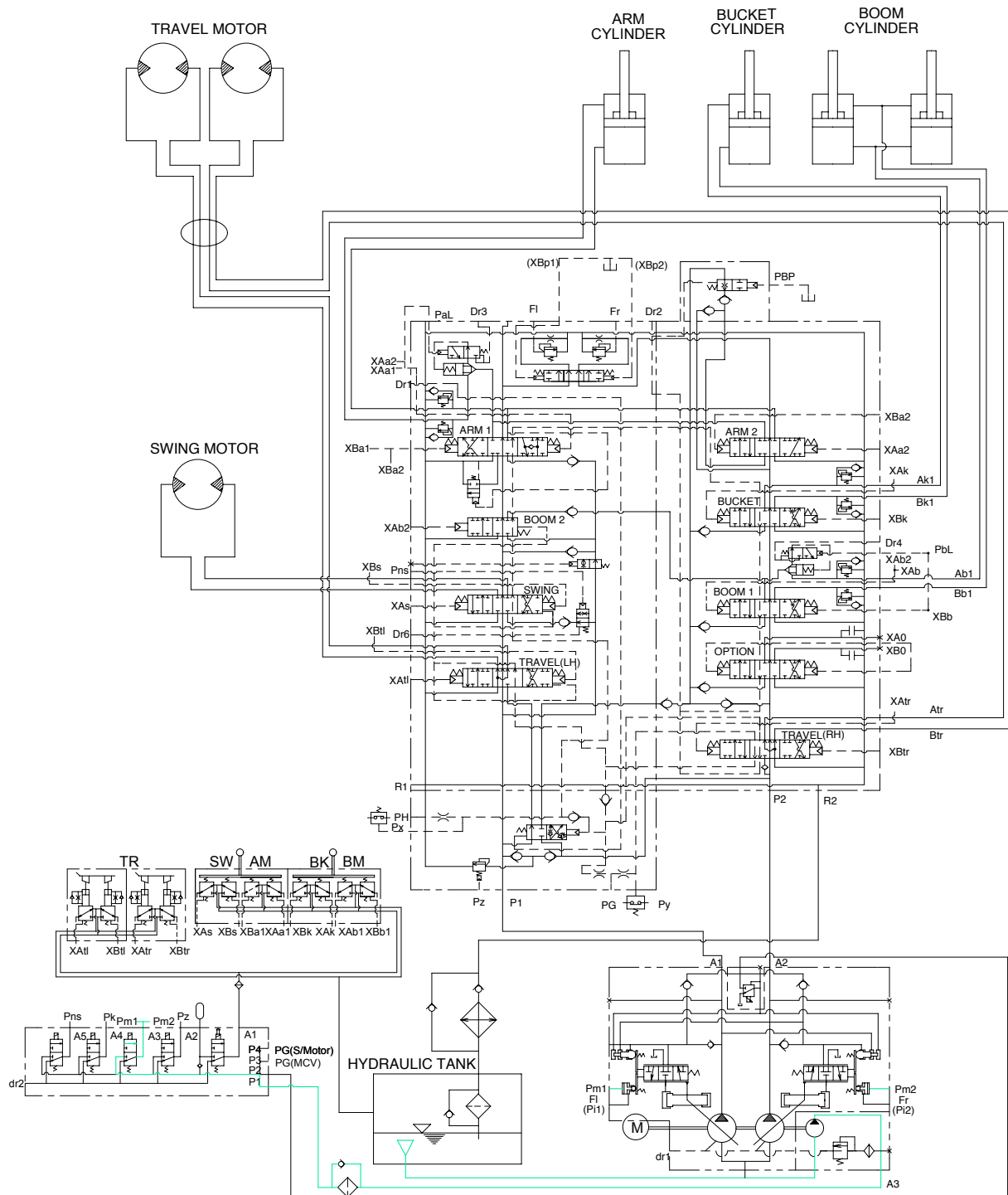
When the travel speed switch is pushed, the travel speed solenoid valve is actuated and the discharged oil from the pilot pump flows to the Pk port of pilot valve in the travel motors. As a result, the control piston is pushed by the main oil flow, thus the displacement is minimized. When the travel speed switch is pushed once more, the travel speed solenoid valve is return to original position by the force of spring, the hydraulic oil of Pk port returns to the hydraulic tank. As a result, the control piston is returned by the main oil flow, thus the displacement is maximized.

5. MAIN RELIEF PRESSURE CHANGE SYSTEM



When the power boost switch on the left control lever is pushed ON, the power boost solenoid valve is actuated, the discharged oil from the pilot pump flows into Pz port of the main relief valve of main control valve; then the setting pressure of the main relief valve is raised from 330kgf/cm² to 360kgf/cm² for increasing the digging power. And even when pressed continuously, it is canceled after 8 seconds.

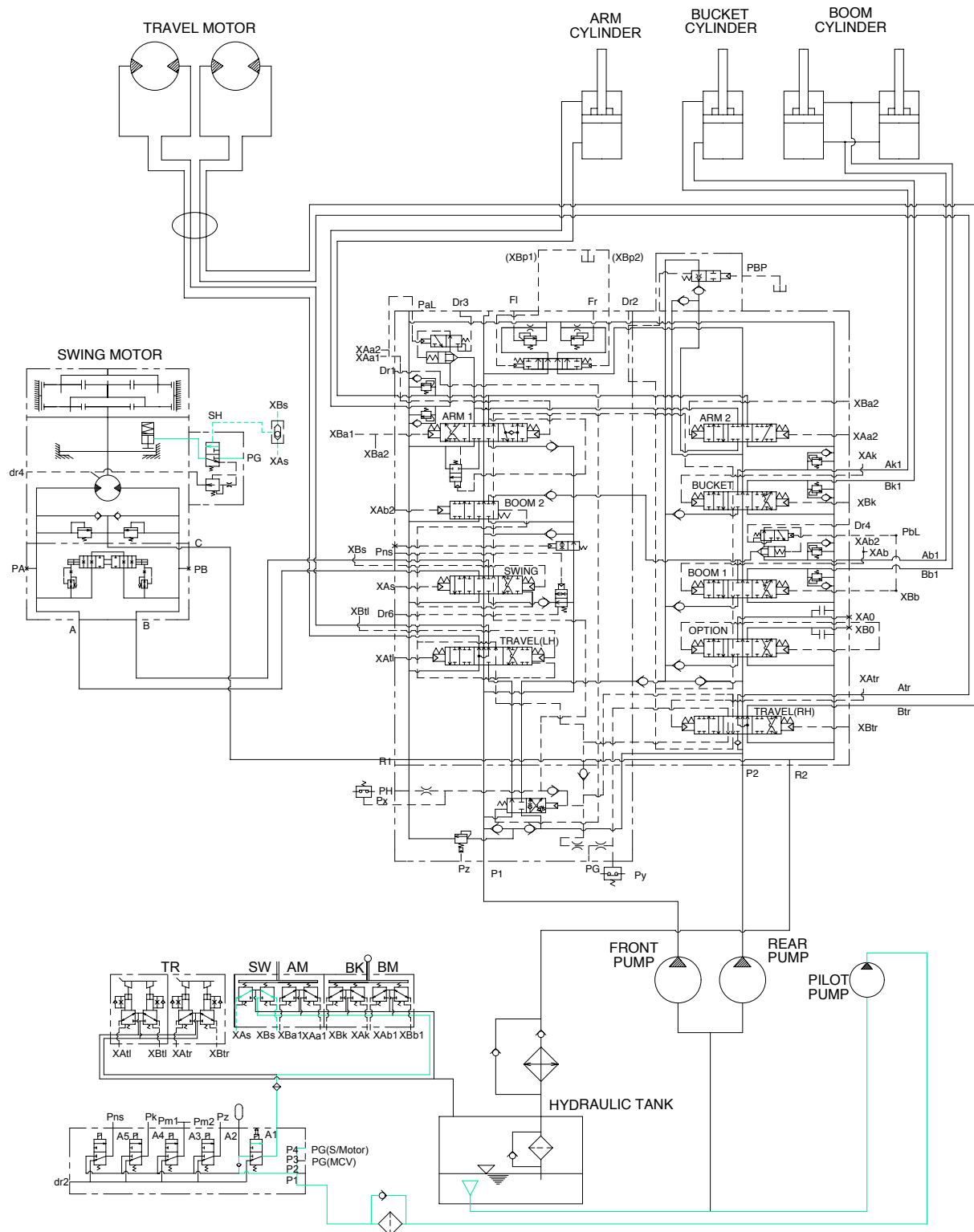
6. MAX FLOW CUT OFF SYSTEM



When the breaker operation mode is selected on the cluster, max flow cut off solenoid valve actuates automatically.

Thus pilot pressure(Pm1,2) is sent to the regulator and pump discharge volume is decreased.

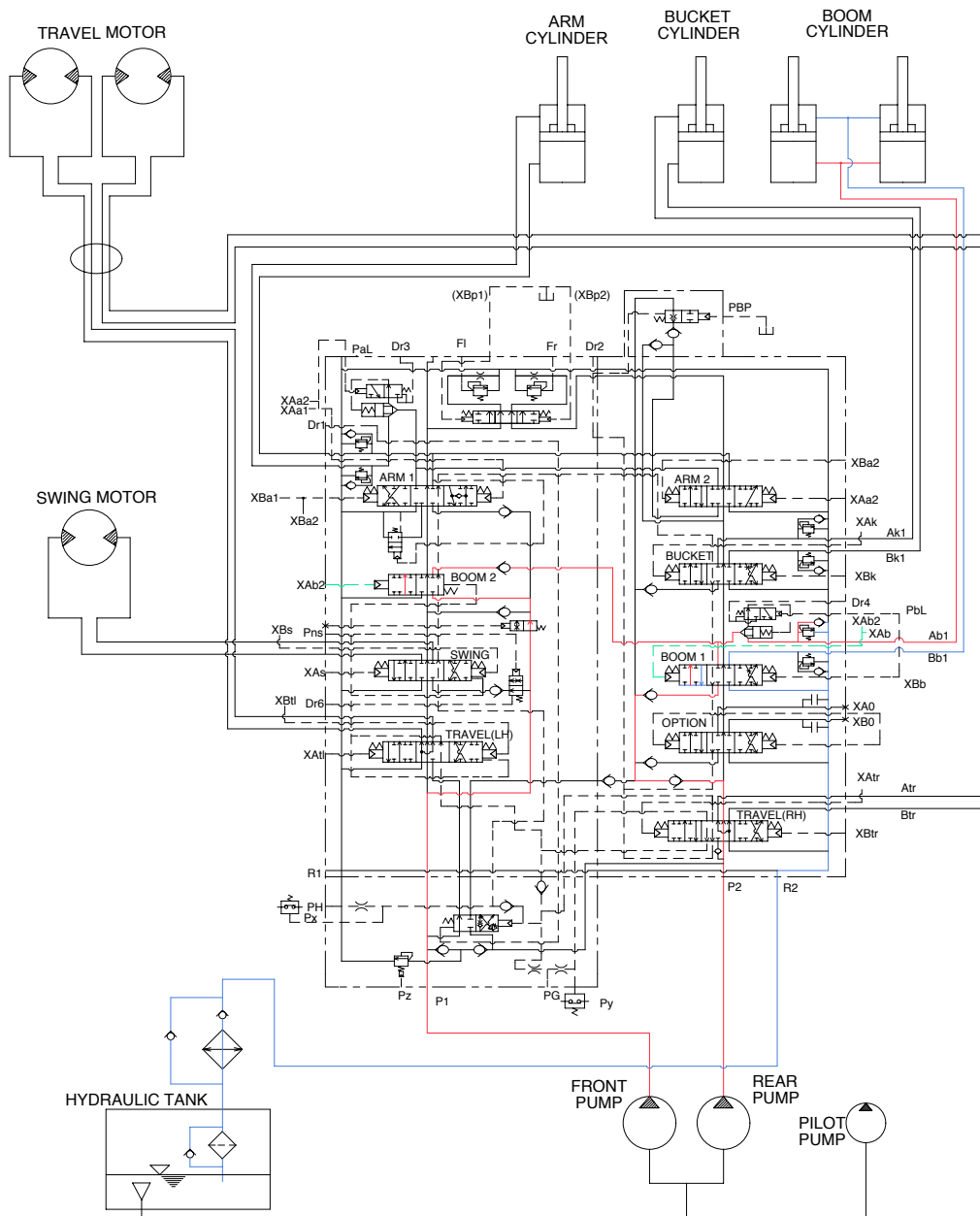
7. SWING PARKING BRAKE RELEASE



When the swing control lever is tilted, the pilot oil flow into SH port of shuttle valve, this pressure move spool so, discharged oil from pilot valve flow into PG port. This pressure is applied to swing motor disc, thus the brake is released. When the swing control lever is set in the neutral position, oil in the swing motor disc cylinder is drained, thus the brake is applied.

GROUP 4 SINGLE OPERATION

1. BOOM UP OPERATION



When the right control lever is pulled back, the boom spools in the main control valve are moved to the up position by the pilot oil pressure from the remote control valve.

The oil from the front and rear pump flows into the main control valve and then goes to the large chamber of boom cylinders.

At the same time, the oil from the small chamber of boom cylinders returns to the hydraulic oil tank through the boom spool in the main control valve. When this happens, the boom goes up.

The excessive pressure in the boom cylinder bottom end circuit is prevented by relief valve.

When the boom is up and the control lever is returned to neutral position, the circuit for the holding pressure at the bottom end of the boom cylinder is closed by the boom holding valve.

This prevents the hydraulic drift of boom cylinder.