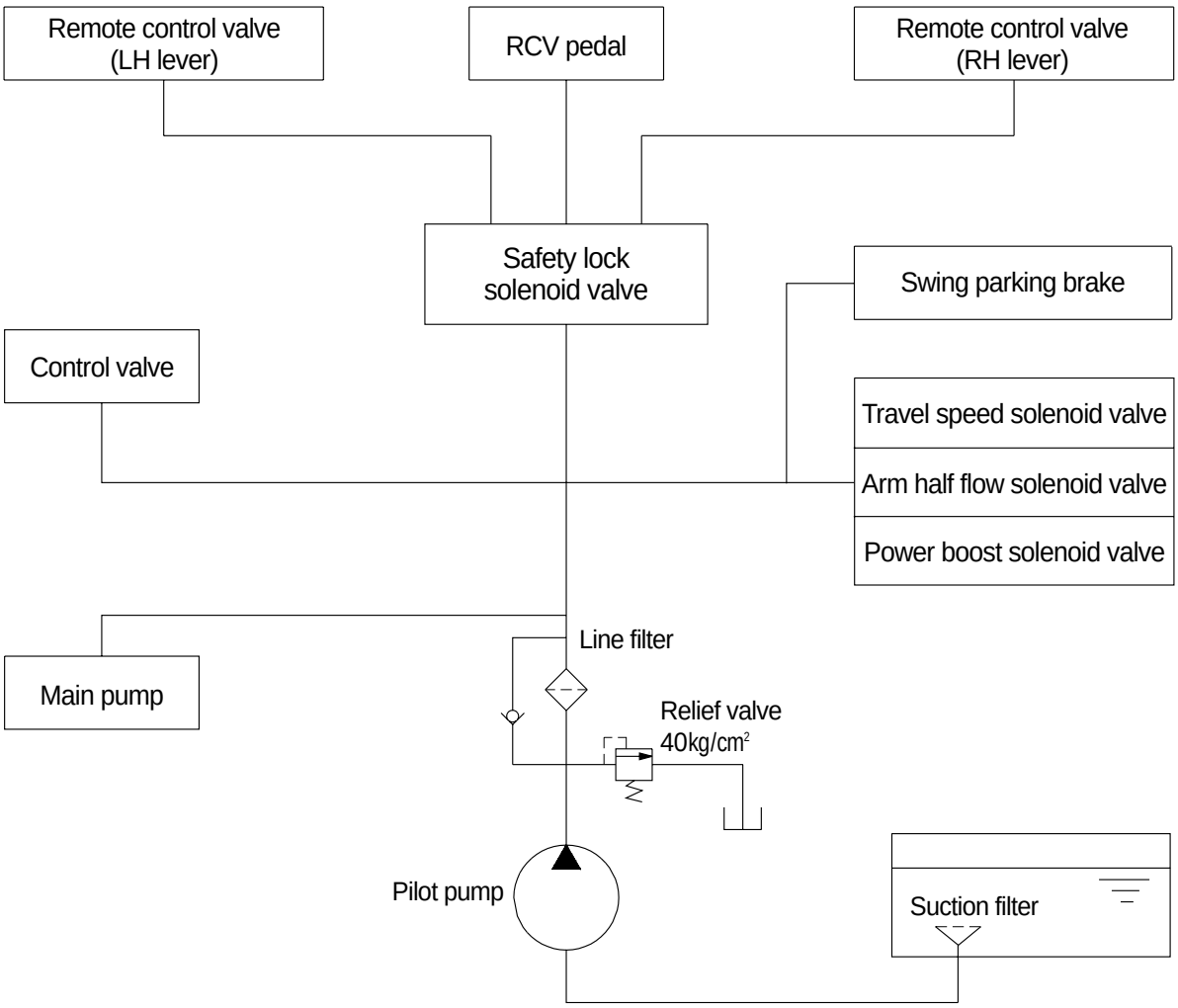
GROUP 3 PILOT CIRCUIT

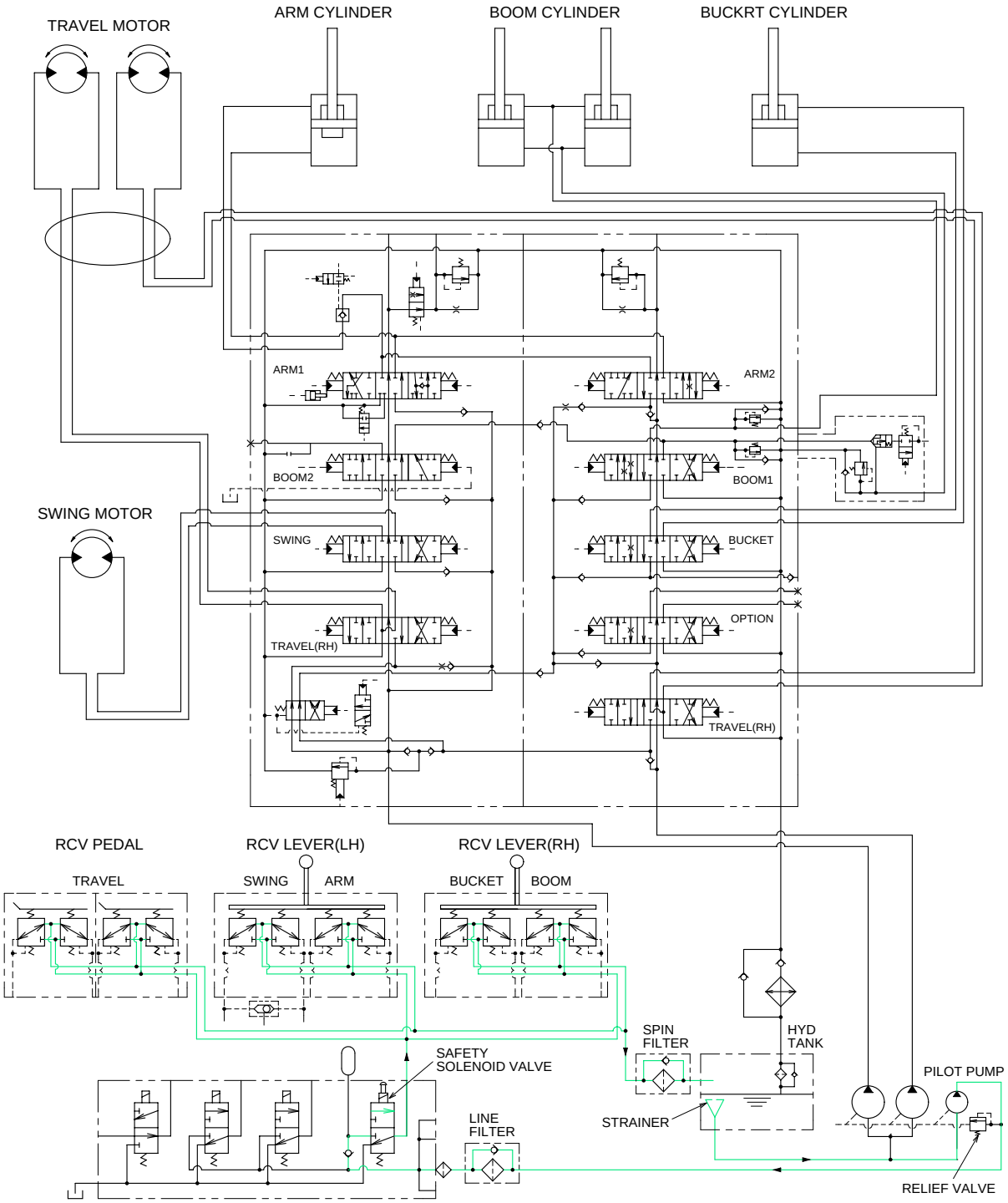


The pilot circuit consists of suction circuit, delivery circuit and return circuit.

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.

1. SUCTION, DELIVERY AND RETURN CIRCUIT

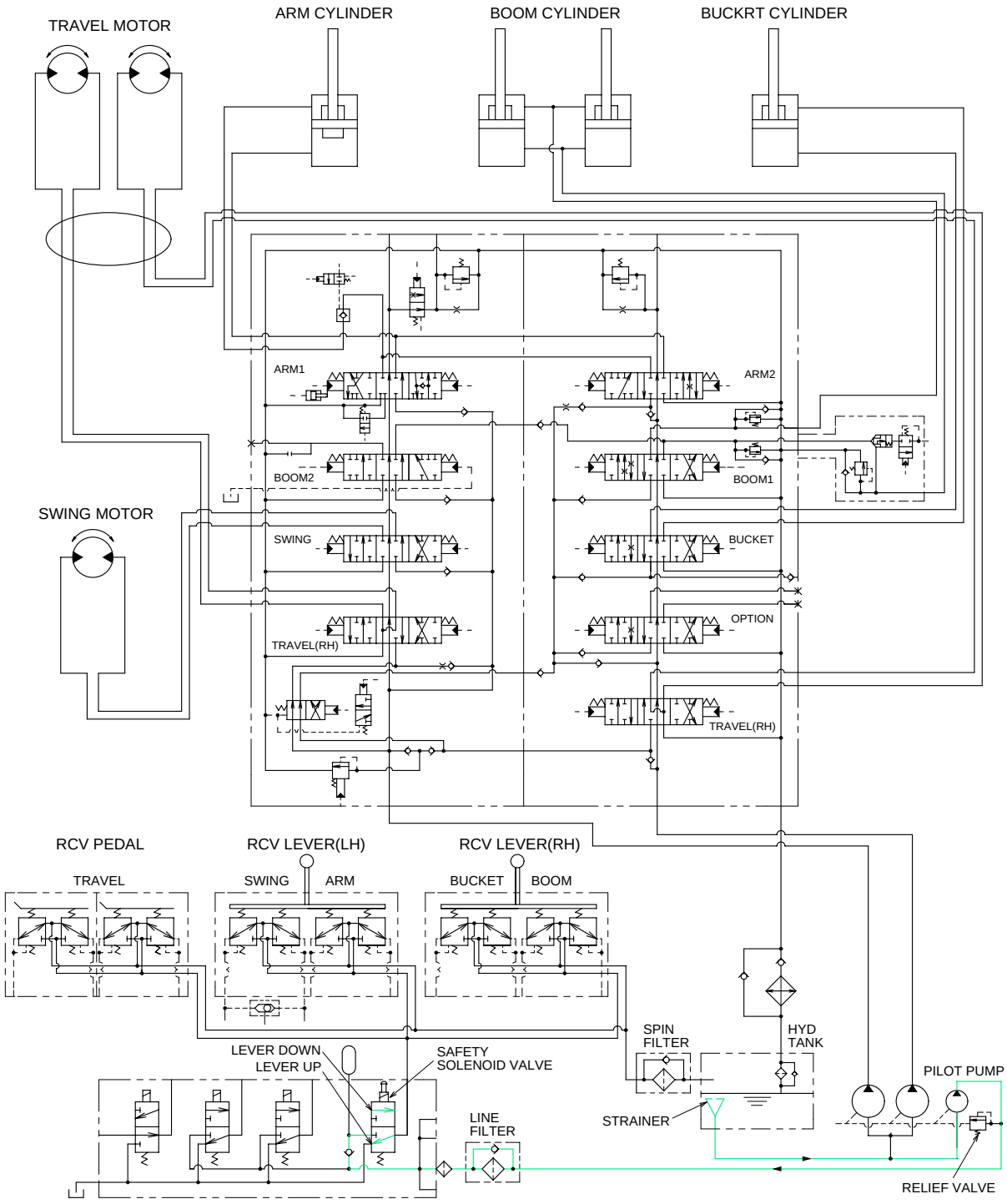


The pilot pump receive oil from the hydraulic tank. The discharged oil from the pilot pump flows to the safety solenoid valve through the line filter. The oil is filtered by the line filter. The pilot relief valve is provided in the pilot pump for limiting the pilot circuit pressure.

The oil filtered by line filter flows remote control valve through safety solenoid valve.

The return oil from remote control valve returned to hydraulic tank through the spin filter.

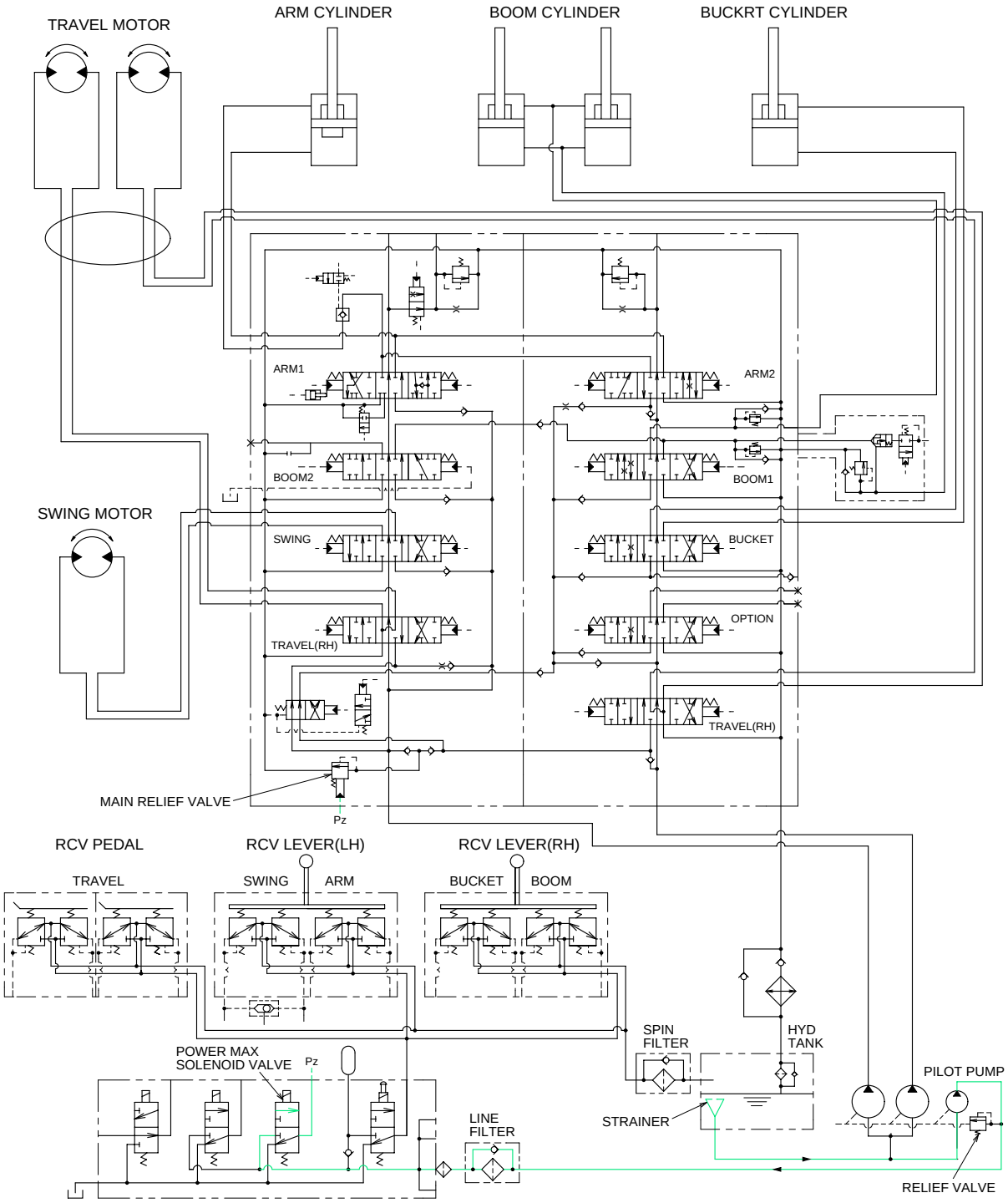
2. SAFETY SOLENOID VALVE(SAFETY LEVER)



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

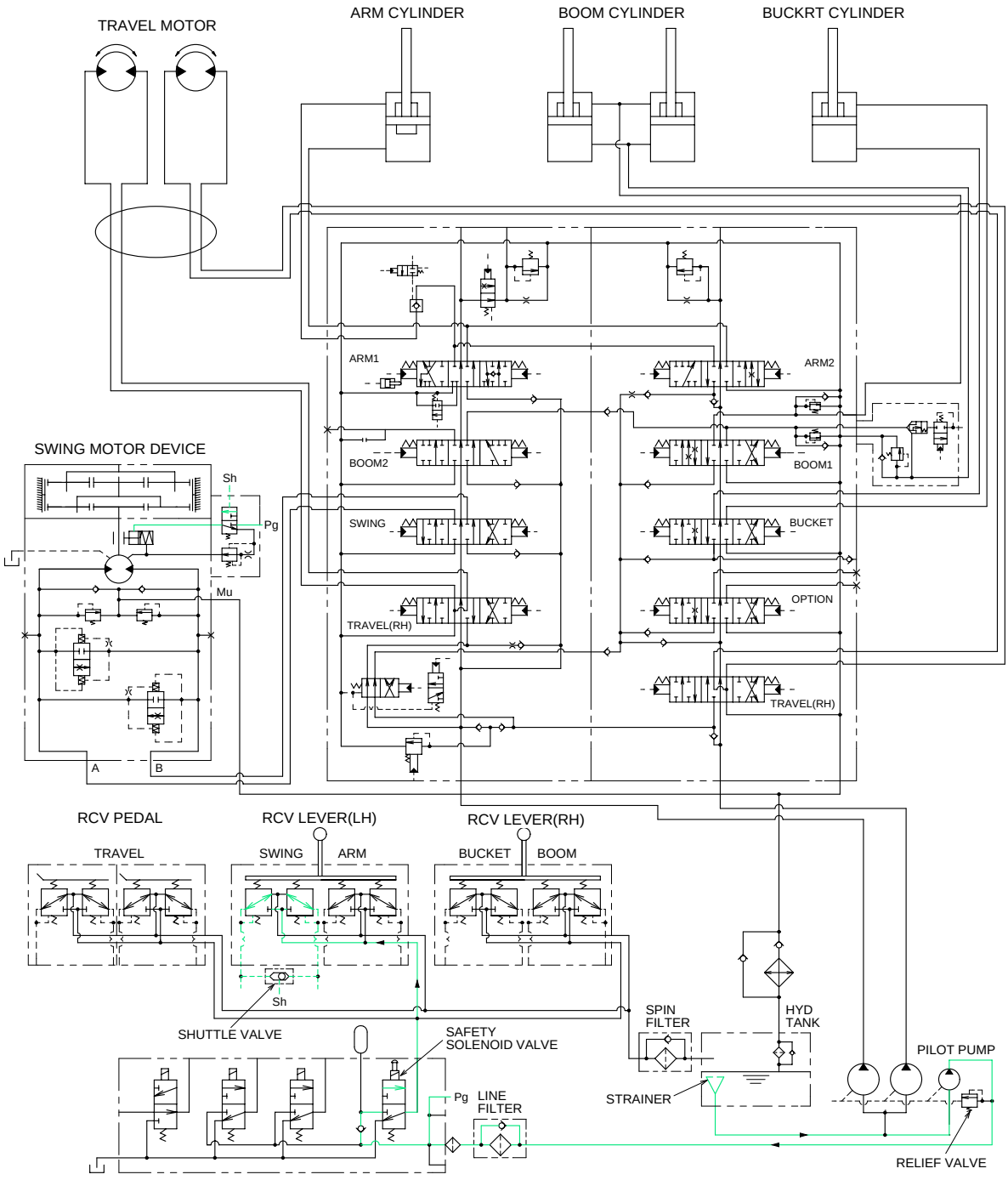
When the lever of the safety solenoid valve moved upward, oil does not flow into the remote control valve, because of blocked by the spool.

3. MAIN RELIEF PRESSURE CHANGE CIRCUIT



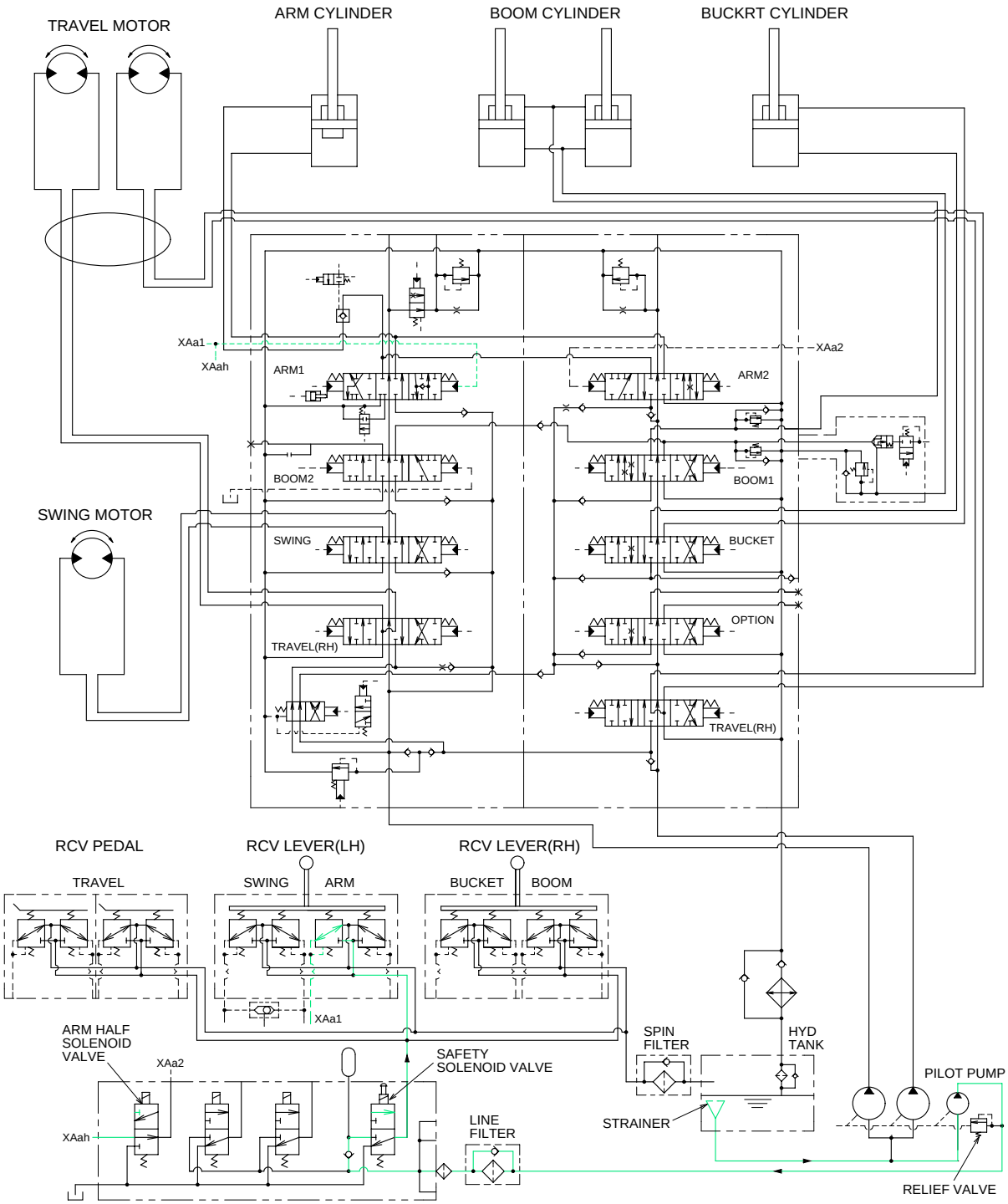
When the power max switch on the left control lever is pushed ON, the power max solenoid valve is actuated, the discharged oil from the pilot pump flows into Pz port of the main relief valve of main control valve ; Then the setting pressure of the main control valve is raises from 320kgf/cm^2 to 350kgf/cm^2 for increasing the digging power. And even when pressed continuously, it is canceled after 8 seconds.

4. SWING PARKING BRAKE RELEASE



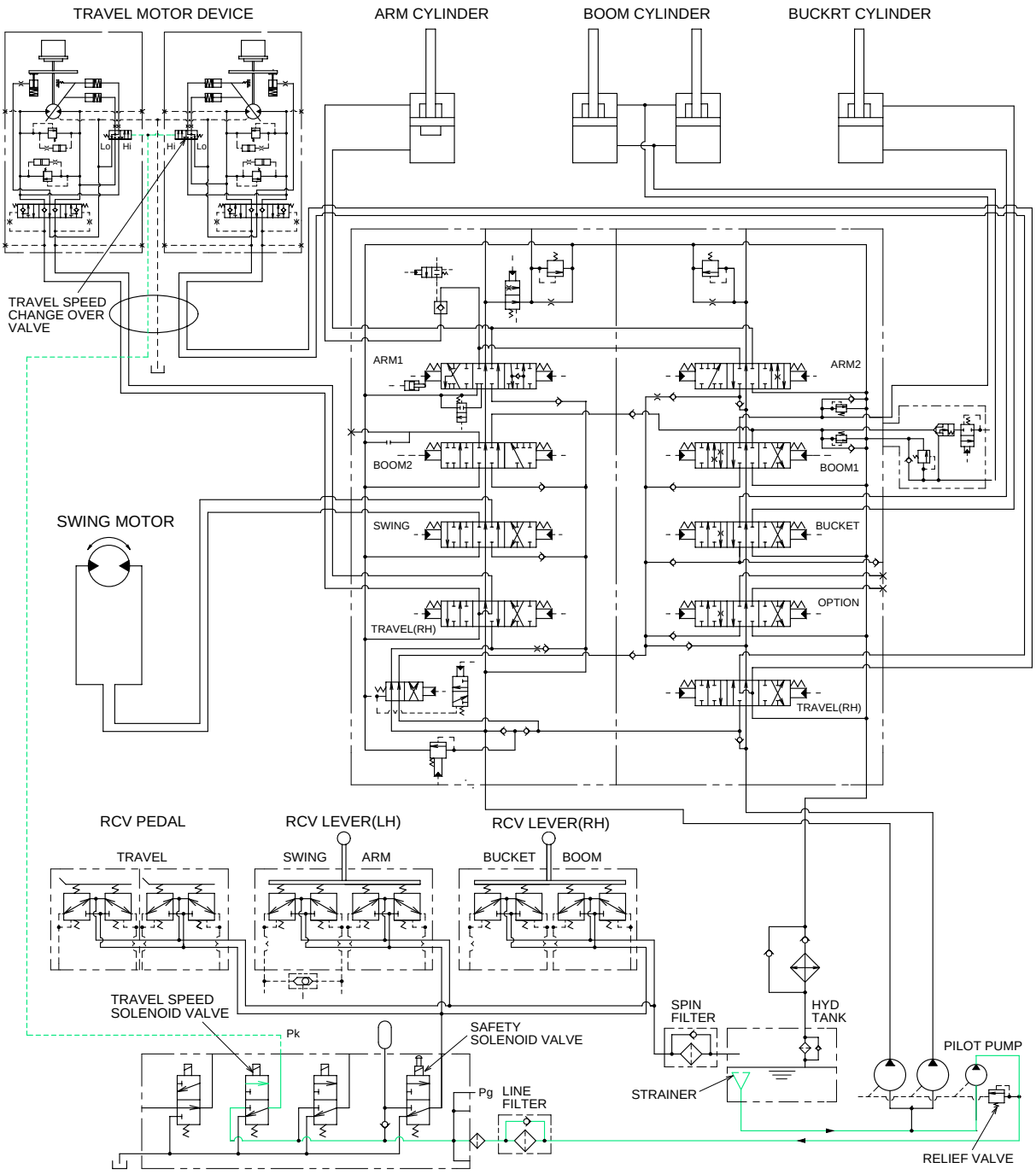
When the swing control lever is operated, the pilot oil flows to Sh port of shuttle valve, this pressure move spool so, discharged oil from pilot pump flows to Pg port.
This pressure is applied to swing motor disc cylinder, thus the brake released.
When the swing control lever is set neutral position, oil in the swing motor disc cylinder is drain, thus the brake is applied.

5. ARM HALF FLOW SYSTEM



When the arm half flow switch is turned ON, the arm half flow solenoid valve is switched to ON and Arm2 pilot port XAa2 is connect with drain line : So the spool of ARM2 is not actuated. As a result, the arm in operation is only the ARM1 section. This function is useful to fine control of the arm in case of finishing work.

6. TRAVEL SPEED CONTROL PRESSURE



When the travel speed solenoid valve was placed in the Hi position, the pressure oil from pilot pump through last guard filter flows to port(Pk) of travel speed change over valve, and the control piston is pushed up, thus minimizing the displacement.

When the travel speed solenoid valve was placed in the Lo position, the oil of Pk port return to the tank and the control piston is returned, thus maximizing the displacement.