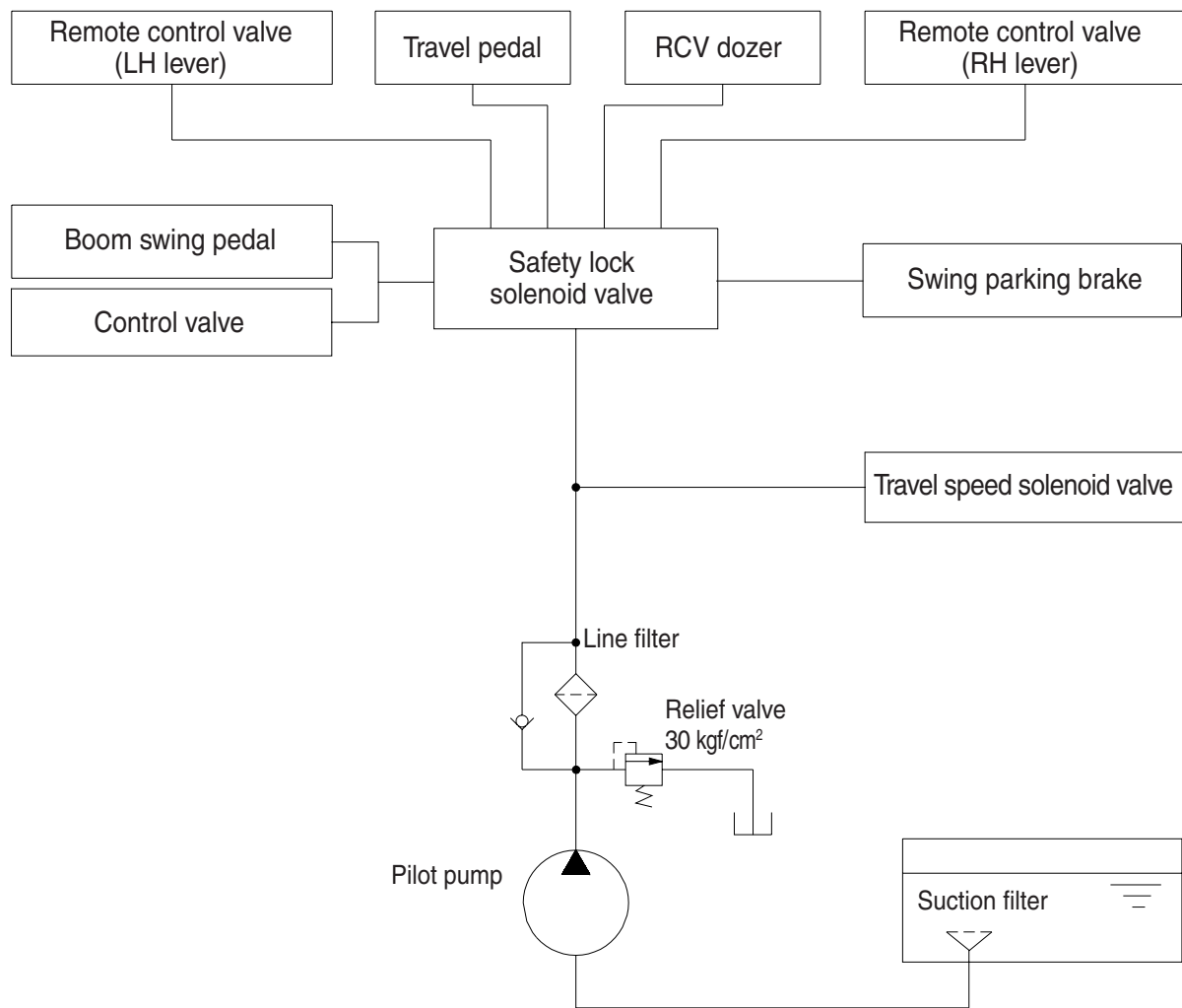


GROUP 3 PILOT CIRCUIT



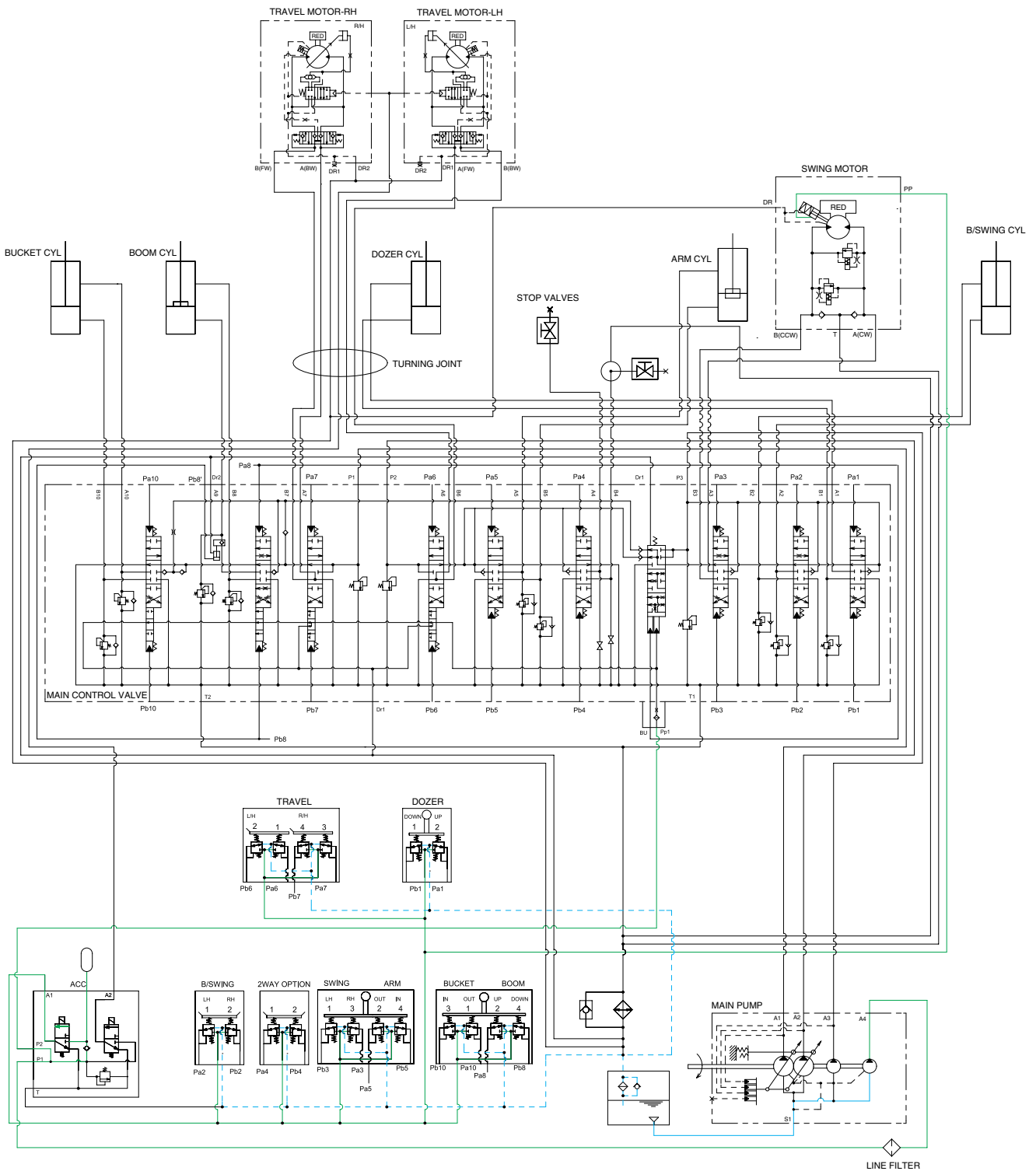
R35Z73HC00

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, solenoid valve assemblies, swing parking brake, main control valve and safety lock solenoid valve.

1. SUCTION, DELIVERY AND RETURN CIRCUIT



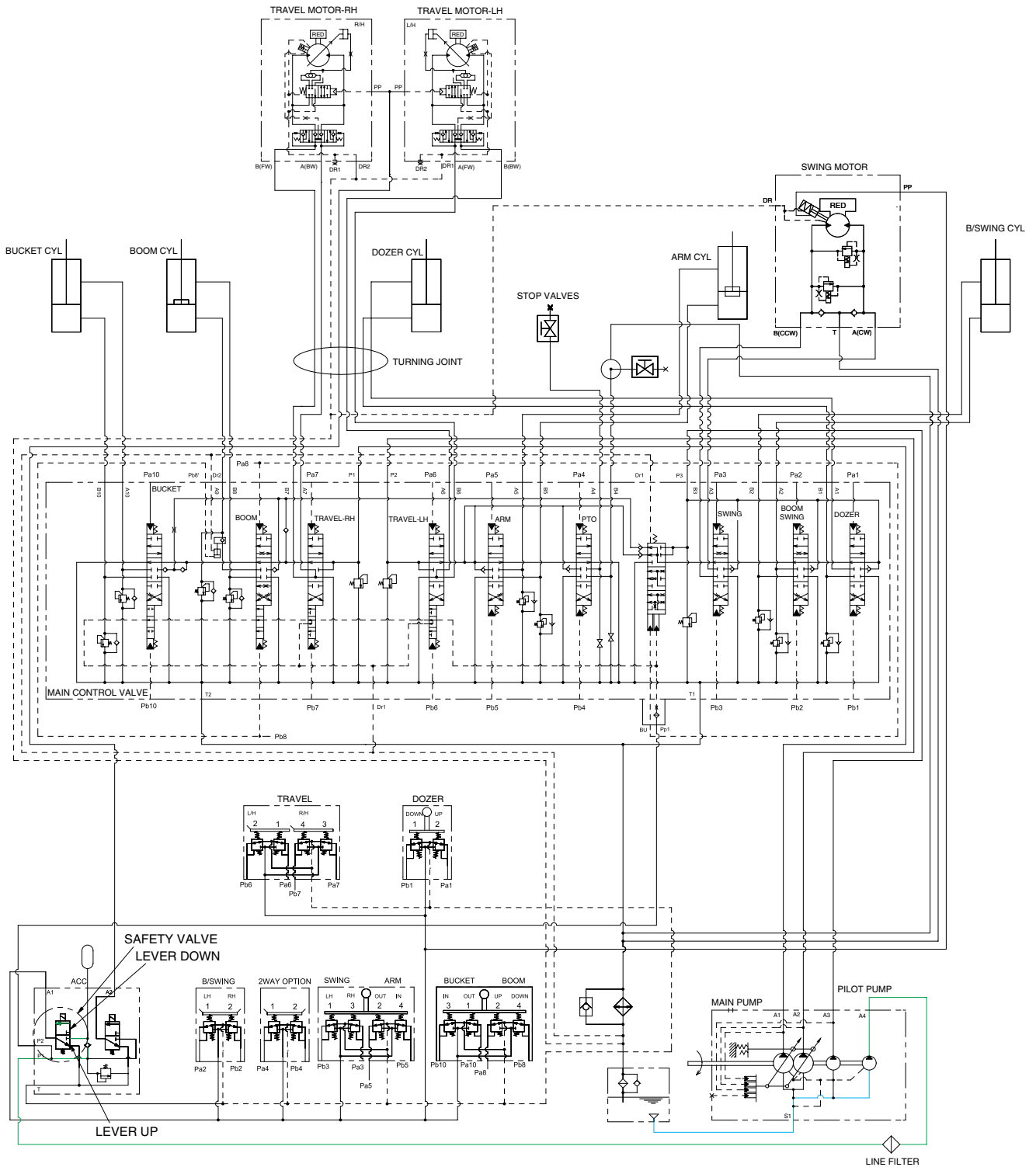
R27293HC03

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, MCV and swing port through safety solenoid valve.

The return oil flow into the hydraulic tank.

2. SAFETY VALVE (SAFETY LEVER)

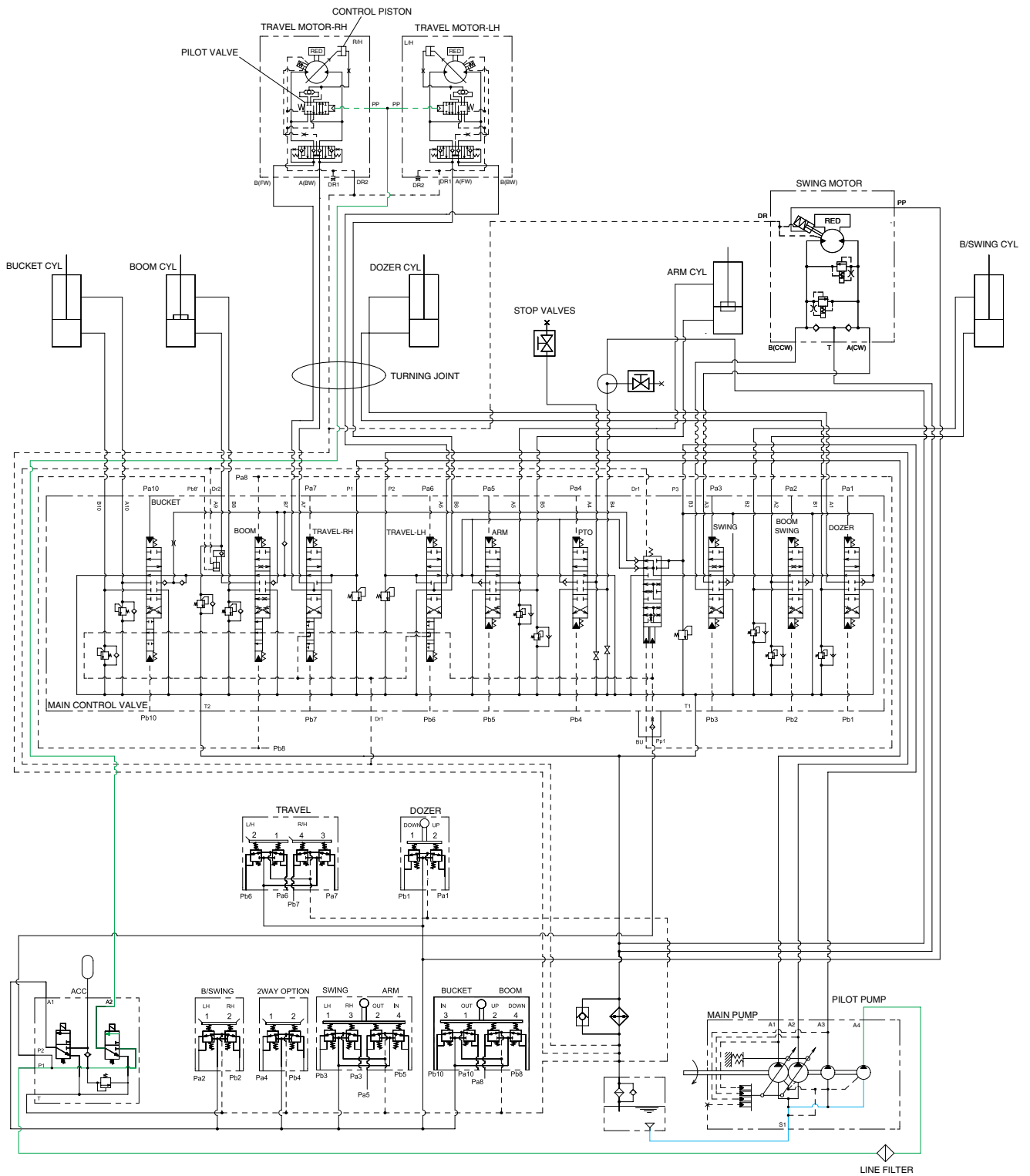


R27Z93HC04

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.

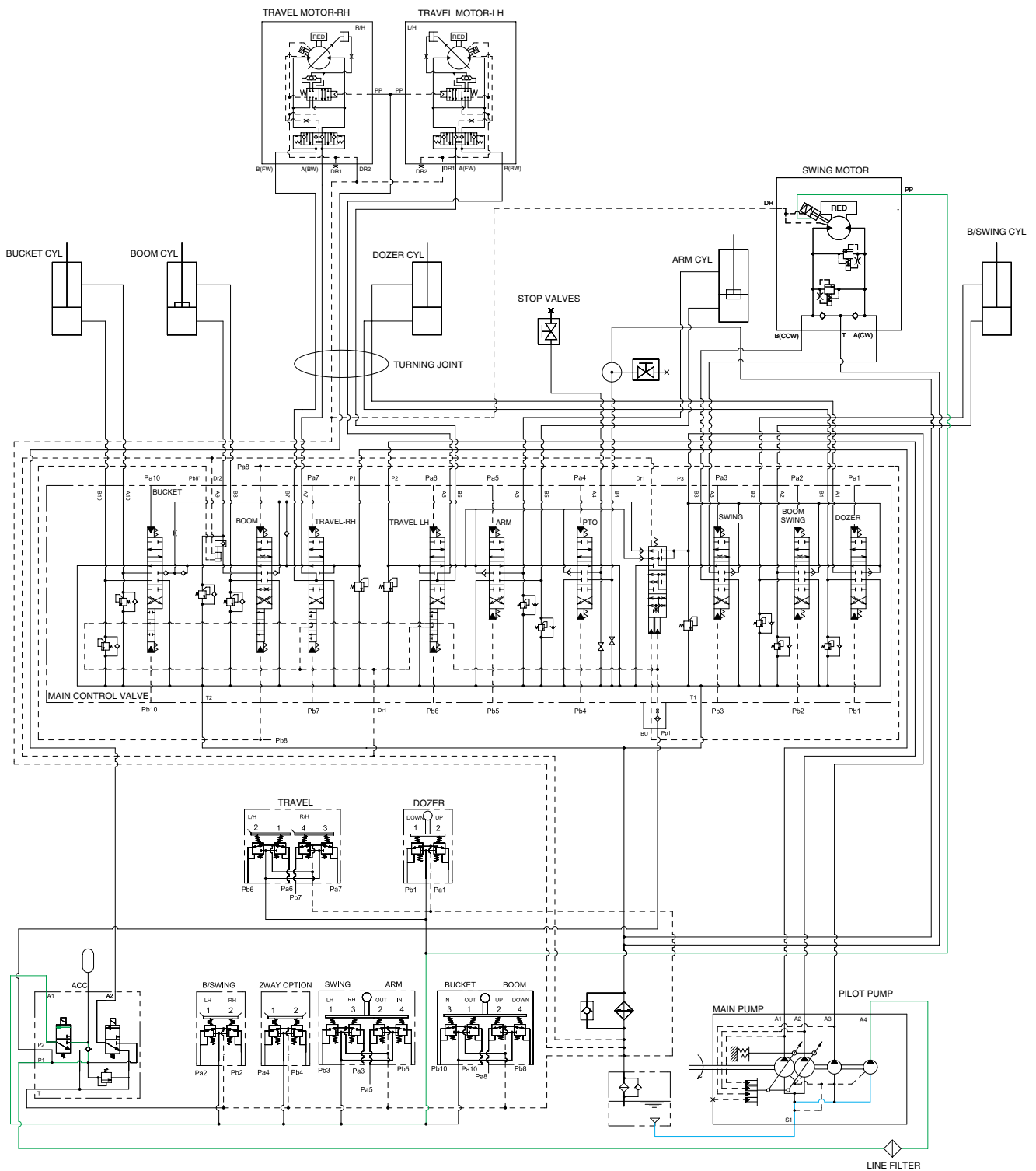
3. TRAVEL SPEED CONTROL SYSTEM



R27Z93HC05

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 Ps 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 Ps port returns to the hydraulic tank. As a result, the control piston is returned by the main oil flow, thus the displacement is maximized.

4. SWING PARKING BRAKE RELEASE



R27Z93HC06

When the Safety solenoid lever is moved downward, the pilot oil flow into PP port of the swing motor through solenoid valve. This pressure is applied to swing motor disc, thus the brake is released. When the safety solenoid lever is moved to upward, oil in the swing motor disc cylinder is drained, thus the brake is applied.