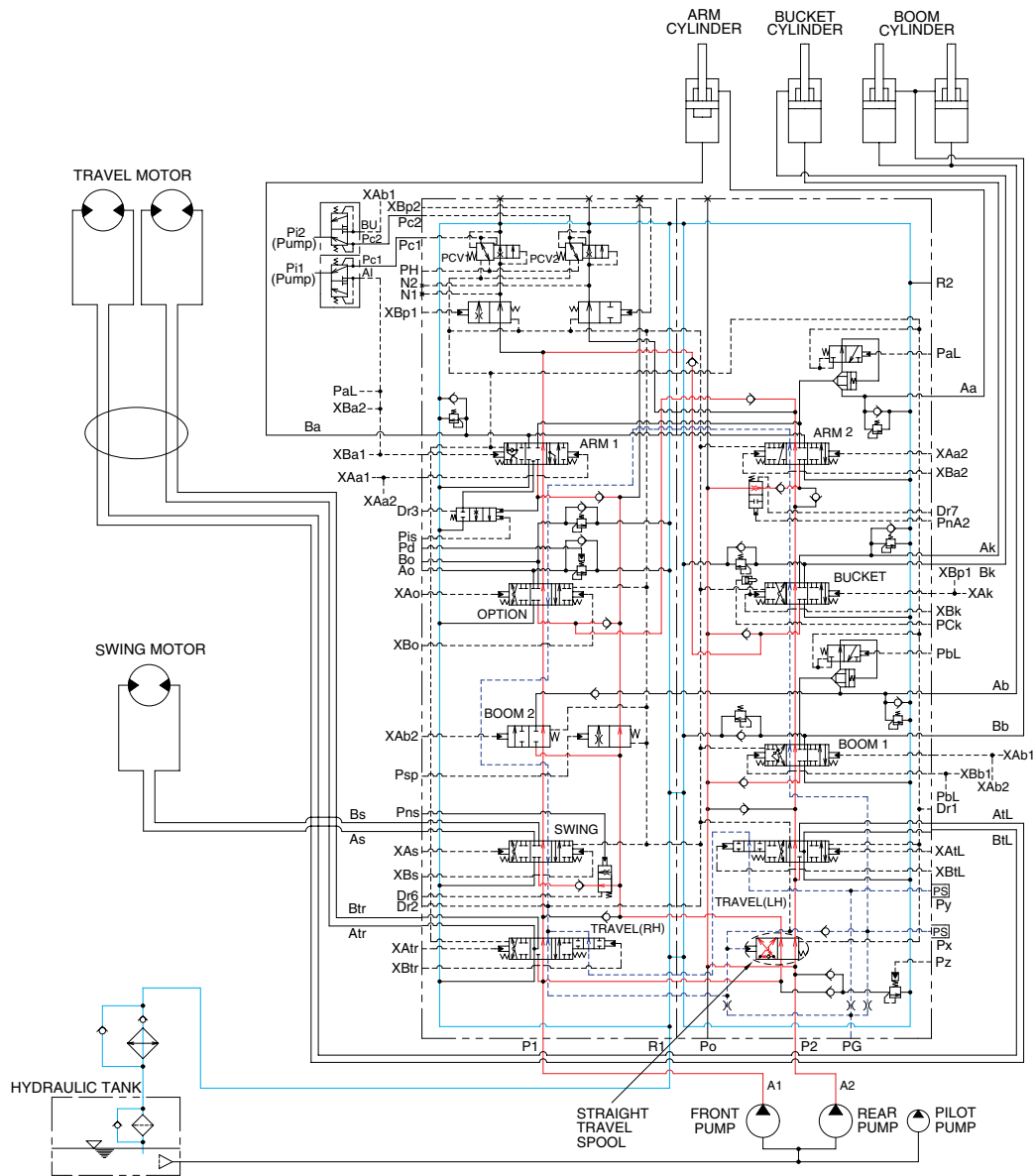


GROUP 5 COMBINED OPERATION

1. OUTLINE



21093HC17

The oil from the front and rear pump flows through the neutral oil passage, bypass oil passage and confluence oil passage in the main control valve. Then the oil goes to each actuator and operates them. Check valves and orifices are located on these oil passage in the main control valve. These control the oil from the main pumps so as to correspond to the operation of each actuator and smooth the combined operation.

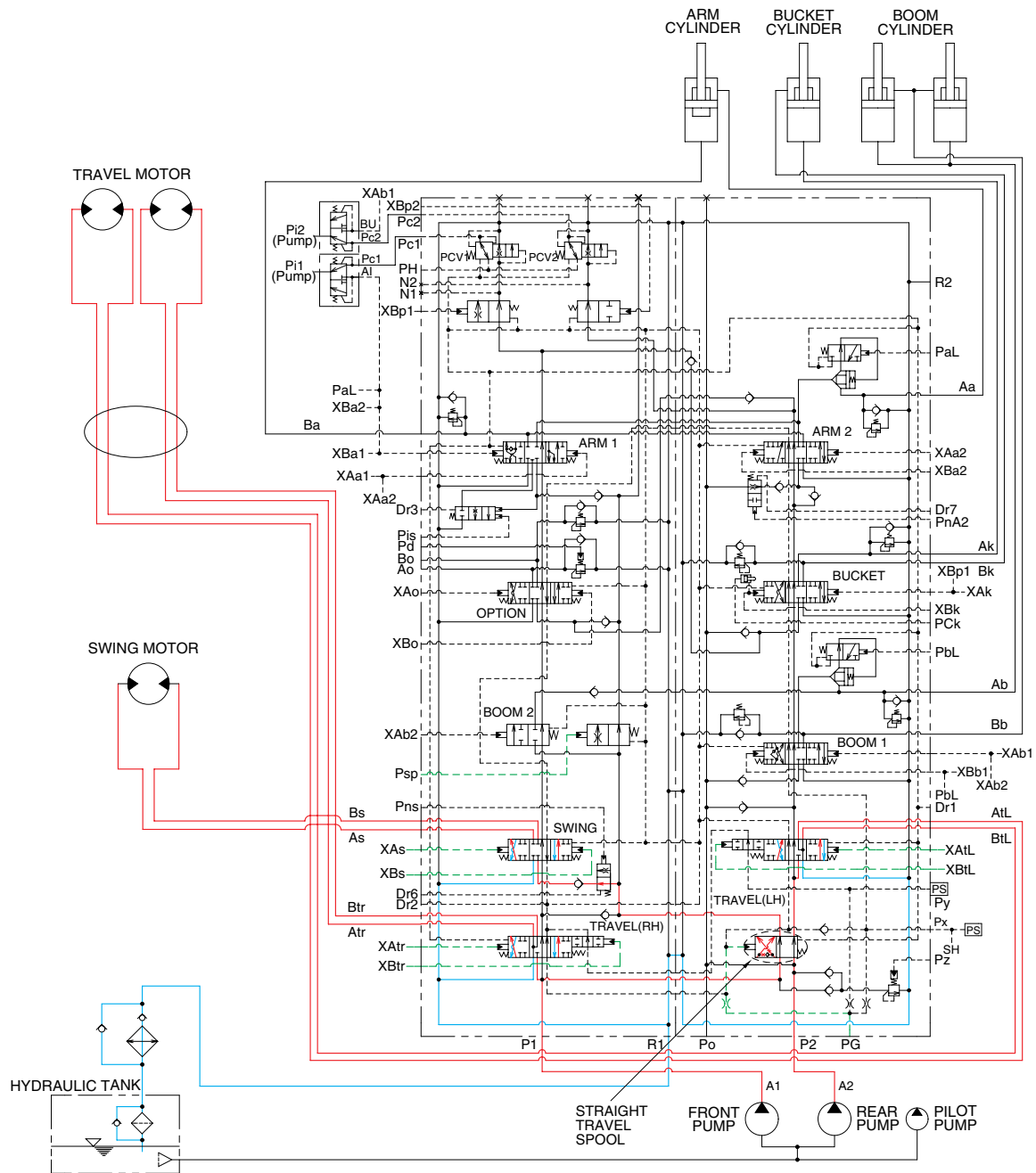
STRAIGHT TRAVEL SPOOL

This straight travel spool for straight travel is provided in the main control valve.

If any actuator is operated when traveling, the straight travel spool is pushed to the right by the pilot oil pressure.

Consequently, the left and right travel oil supply passage are connected, and equivalent amount of oil flows into the left and right travel motors. This keeps the straight travel.

5. COMBINED SWING AND TRAVEL OPERATION



21093HC22

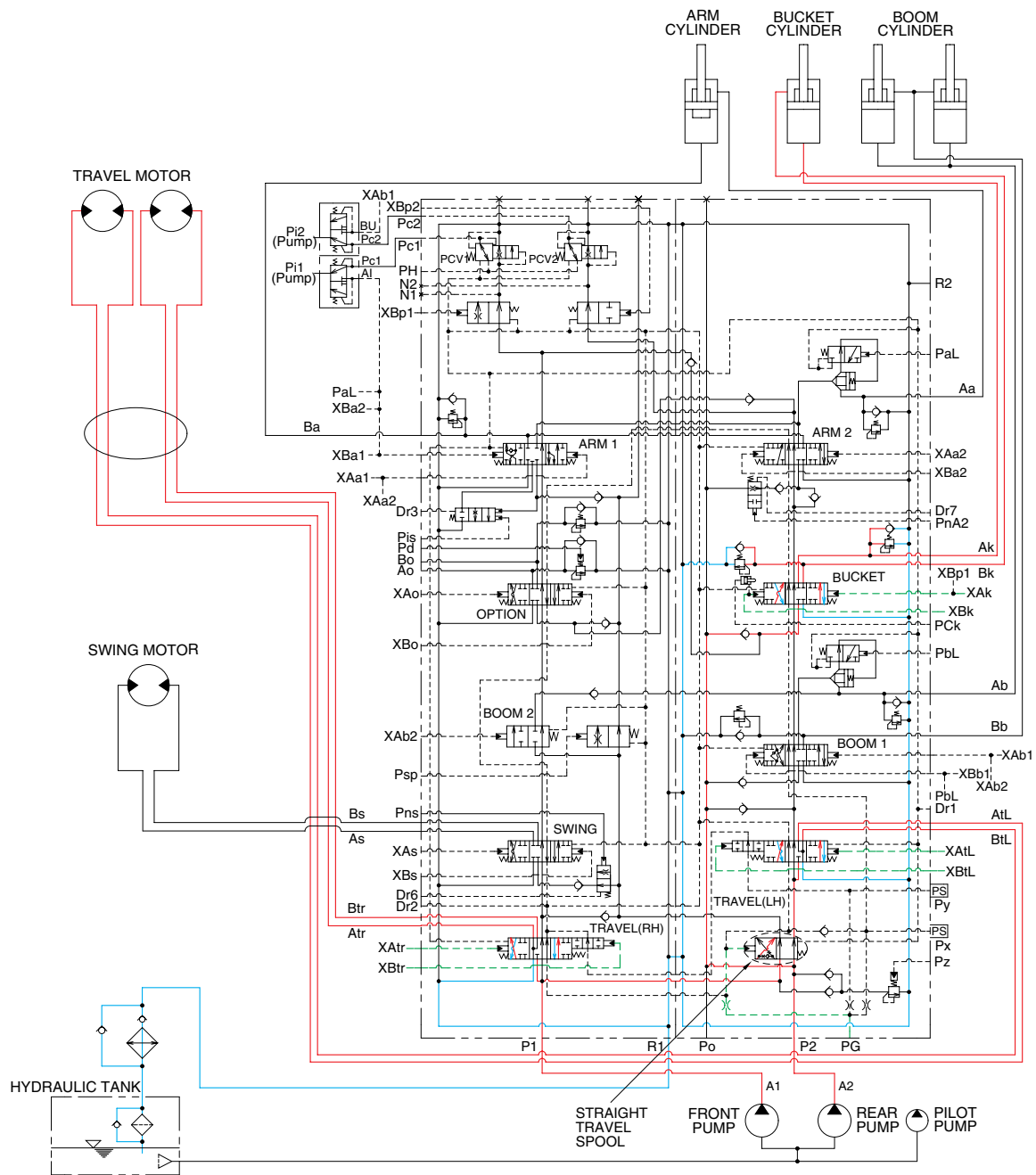
When the swing and travel functions are operated, simultaneously the swing spool and travel spools in the main control valve are moved to the functional position by the pilot oil pressure from the remote control valve and straight travel spool is pushed to the right by the pilot oil pressure from the pilot pump.

The oil from the front pump flows into the travel motors through the RH travel spool of the left control valve and the LH travel spool of the right control valve via the straight travel spool.

The oil from the rear pump flows into the swing motor through the swing spool and travel motor through the LH travel spool via the check valve and orifice in the straight travel spool.

The upper structure swings and the machine travels straight.

8. COMBINED BUCKET AND TRAVEL OPERATION



21093HC25

When the bucket and travel functions are operated, simultaneously the bucket spool and travel spools in the main control valve are moved to the functional position by the pilot oil pressure from the remote control valve, and the straight travel spool is pushed to the right by the oil pressure from pilot pump. The oil from the front pump flows into the travel motors through the RH travel spool of the left control valve and the LH travel spool of the right control valve via the straight travel spool of the control valve.

The oil from the rear pump flows into the bucket cylinder through the bucket spool via the confluence oil passage. Also, the oil from the rear pump flows into the travel motors through the LH travel spool via the check valve and orifice in the straight travel spool.

The bucket is operated and the machine travels straight.

