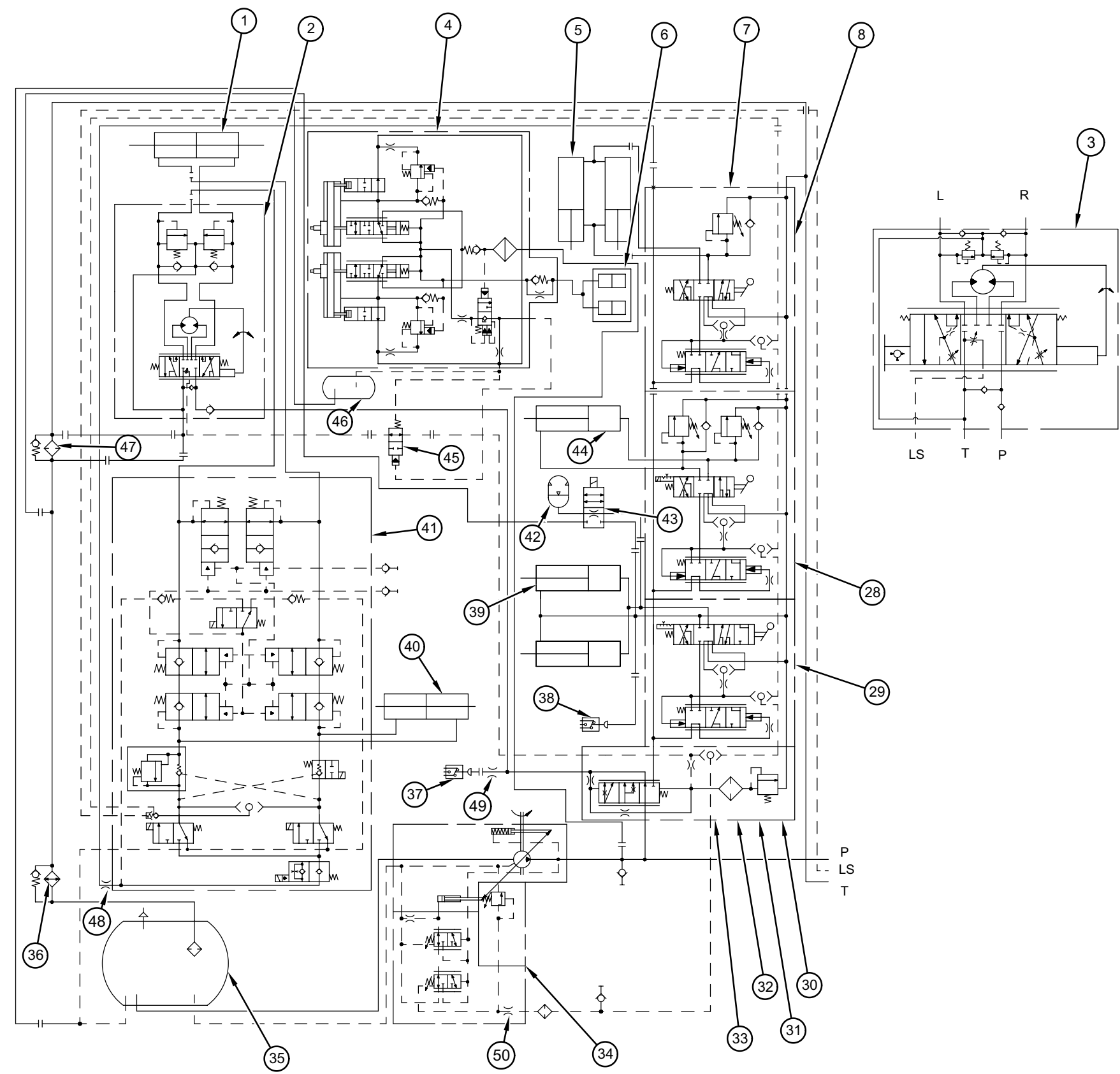


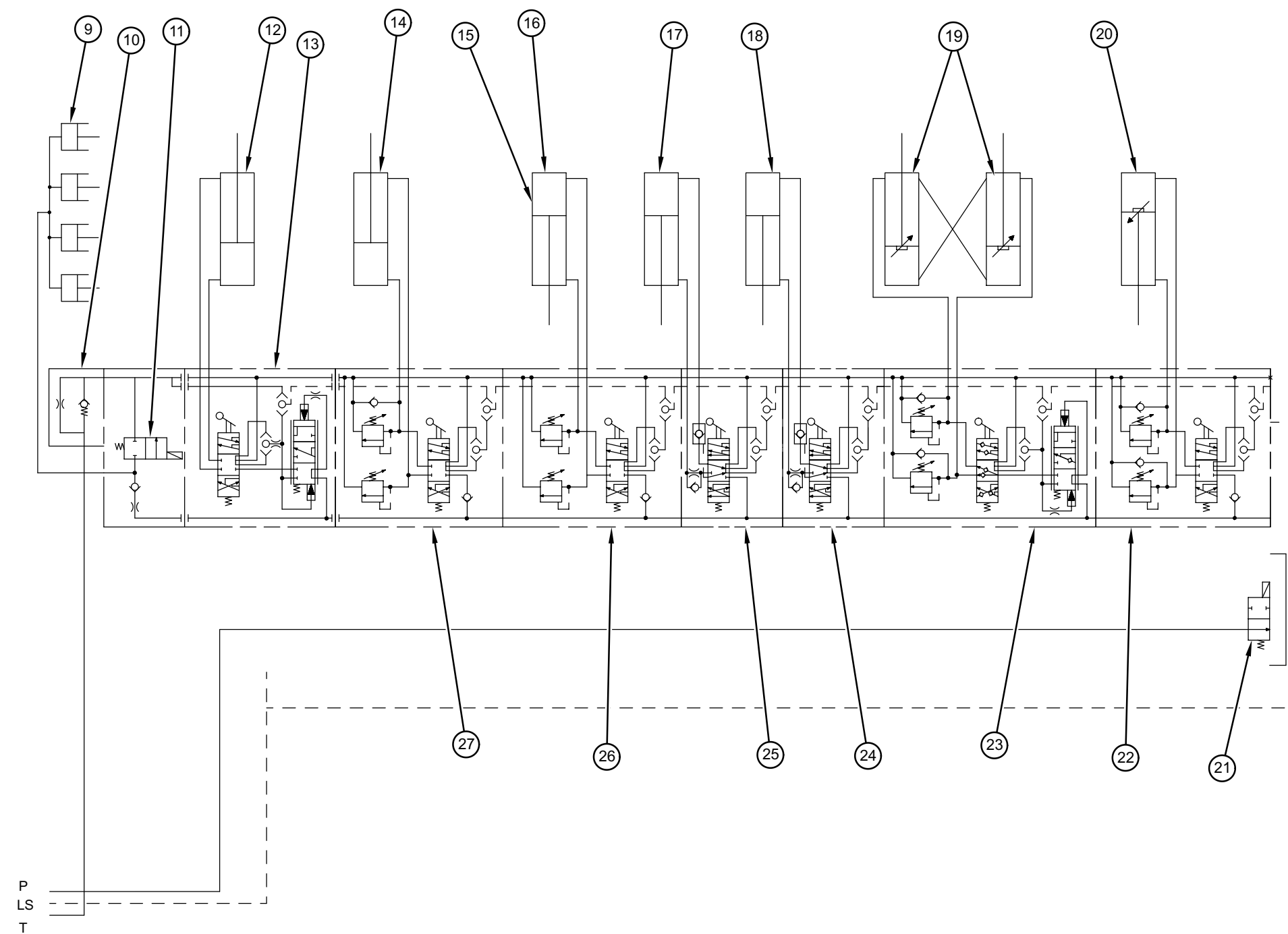
Schematic

**428C & 438C
Backhoe Loaders
Hydraulic & Steering System**

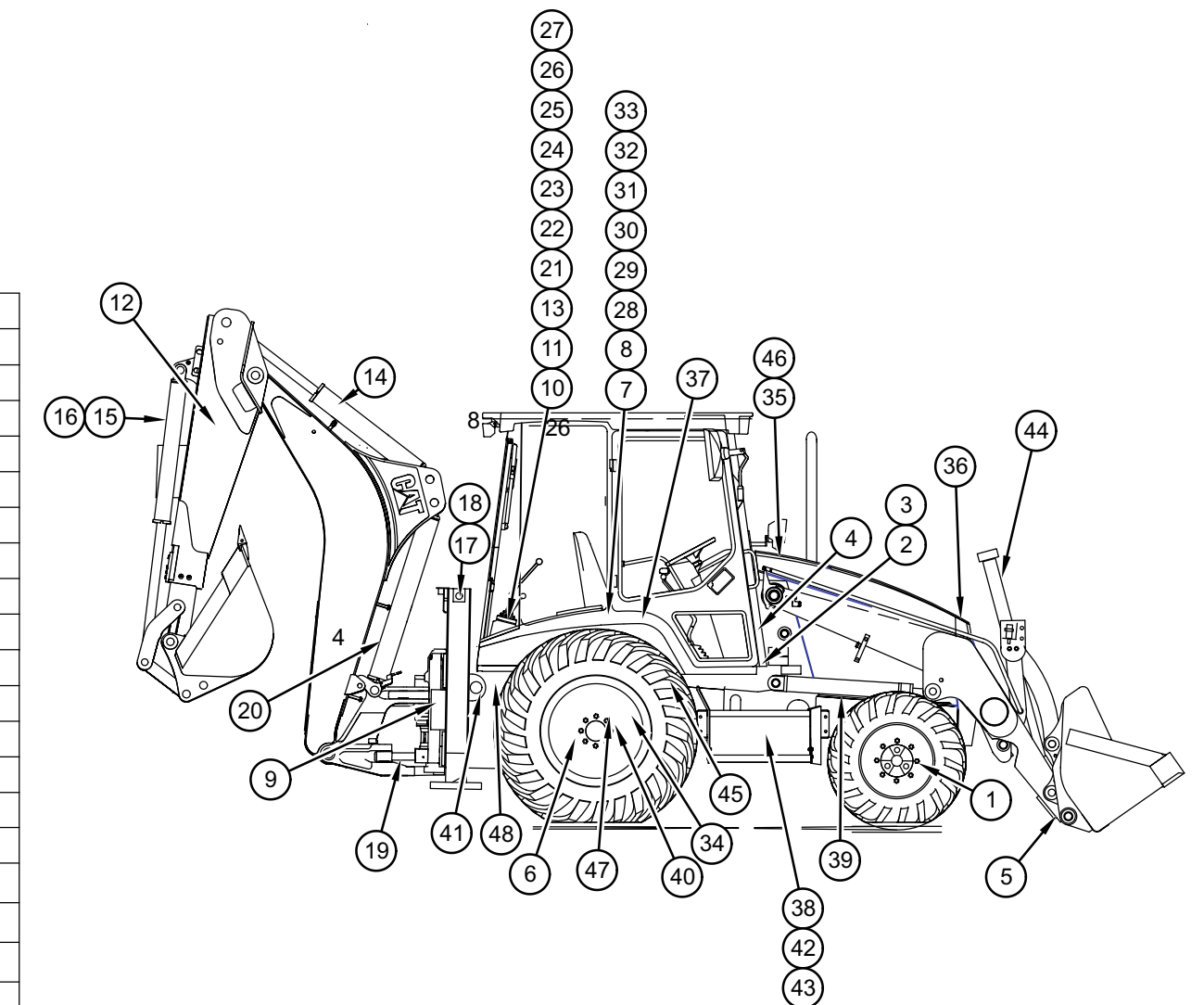
428C	438C
8RN1-UP	9KN1-UP
1HR1-UP	1JR1-UP
1SR1-UP	1TR1-UP
2CR1-UP	2DR1-UP



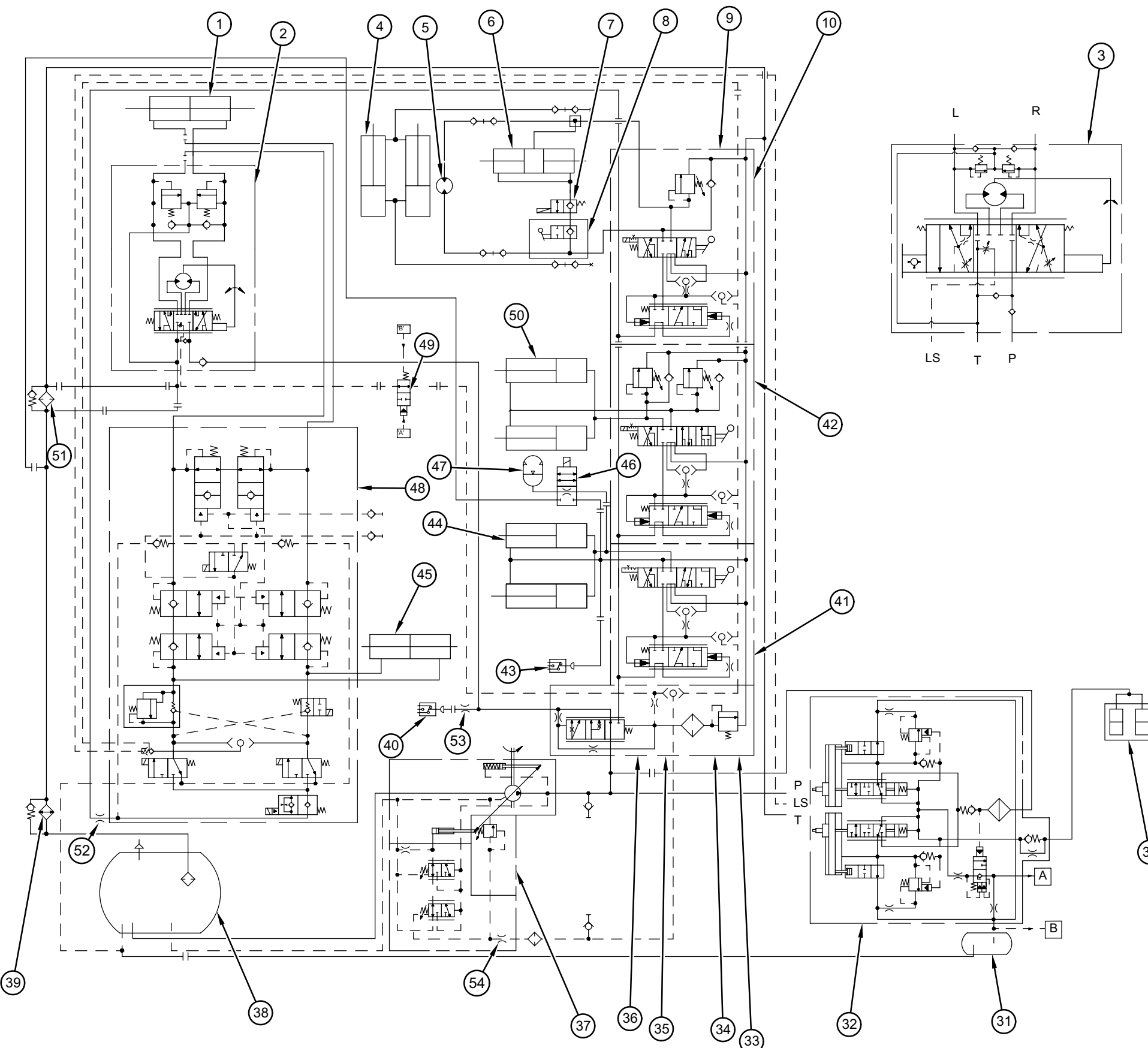
Single Tilt



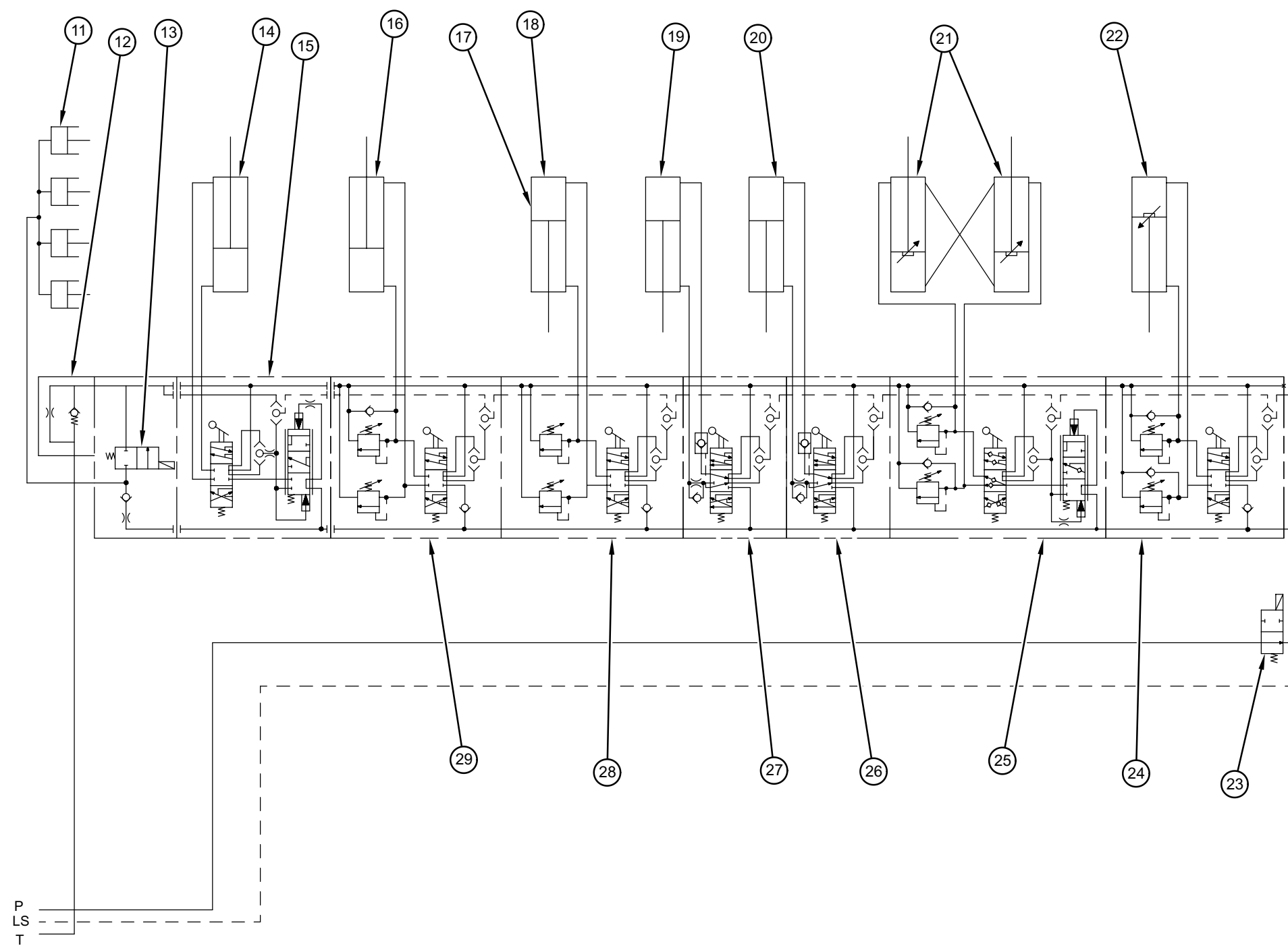
Hydraulic Schematic - Single Tilt	
Item No.	Component
1	Front Steering Cylinder
2	ZWS Steering Metering Pump
3	AWS Steering Metering Pump
4	AWS Brake Control Valve
5	Multipurpose Bucket Cylinders (Optional)
6	AWS Rear Axle Brakes
7	Loader Valve Group
8	Auxiliary Control Valve (Optional)
9	Side Shift Cylinders
10	Check Valve
11	Side Shift Solenoid Valve
12	Extendible Stick Cylinder (Optional)
13	Stick Cylinder
14	Backhoe Bucket Cylinder
15	Extendible Stick Bucket Cylinder (Optional)
16	Left Stabilizer Cylinder
17	Right Stabilizer Cylinder
18	Swing Cylinders
19	Boom Cylinder
20	Shut Off Valve
21	Boom Control Valve
22	Swing Control Valve
23	Right Stabilizer Control Valve
24	Left Stabilizer Control Valve
25	Bucket Control Valve
26	Stick Control Valve
27	Tilt Control Valve
28	Lift Control Valve
29	AWS 3 Bank Valve (Optional)
30	AWS Inlet Manifold and Steering Priority Valve Group
31	ZWS 3 Bank Valve (Optional)
32	ZWS Inlet Manifold and Steering Priority Valve Group



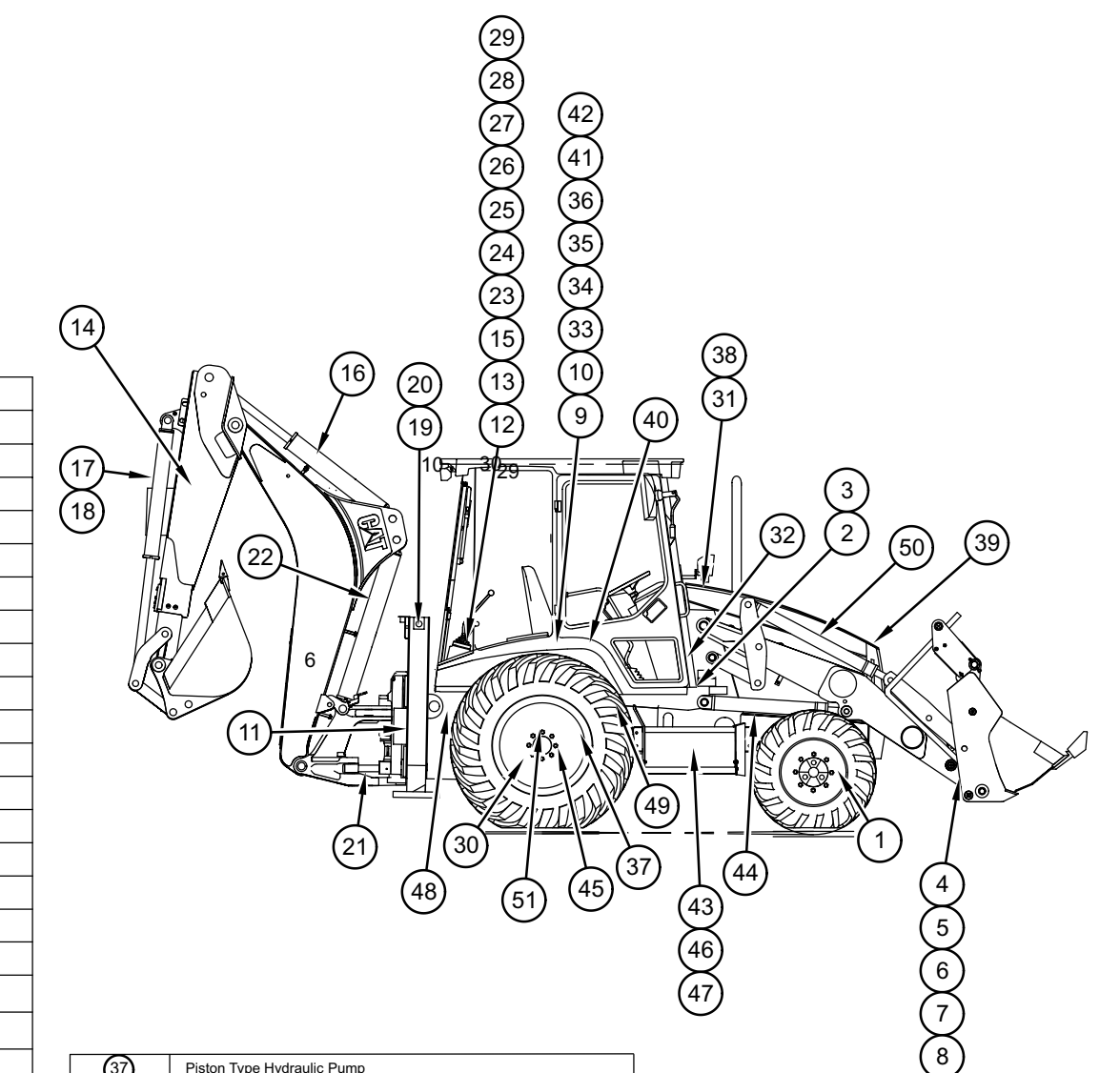
34	Piston Type Hydraulic Pump
35	Hydraulic Oil Tank
36	Hydraulic Oil Cooler
37	AWS Oil Pressure Switch
38	Ride Control Pressure Switch
39	Lift Cylinders
40	AWS Rear Steering Cylinder (Optional)
41	AWS Steering Valve and Mounting Group (Optional)
42	Ride Control Accumulator (Optional)
43	Ride Control Solenoid Valve (Optional)
44	Tilt Cylinder
45	AWS Valve Assembly
46	AWS Brake Reservoir Tank Group
47	Return Line Hydraulic Oil Filter
48	Orifice Diameter 1.5 mm (0.06 in)
49	Orifice Diameter 0.4 mm (0.02 in)
50	Orifice Diameter 1.2 mm (0.05 in)



Parallel Lift



Hydraulic Schematic - Parallel Lift	
Item No.	Component
1	Front Steering Cylinder
2	ZWS Steering Metering Pump
3	AWS Steering Metering Pump
4	Multipurpose Bucket Cylinders (Optional)
5	Broom Motor (Optional)
6	Pin Coupler Cylinder (Optional)
7	Coupler Valve and Mounting Group (Optional)
8	Manual Shut Off Valve (Optional)
9	Loader Valve Group
10	Auxiliary Control Valve (Optional)
11	Side Shift Cylinders
12	Check Valve
13	Side Shift Solenoid Valve
14	Extendible Stick Cylinder (Optional)
15	Extendible Stick Control Valve (Optional)
16	Stick Cylinder
17	Backhoe Bucket Cylinder
18	Extendible Stick Bucket Cylinder (Optional)
19	Left Stabilizer Cylinder
20	Right Stabilizer Cylinder
21	Swing Cylinders
22	Boom Cylinder
23	Shut Off Valve
24	Boom Control Valve
25	Swing Control Valve
26	Right Stabilizer Control Valve
27	Left Stabilizer Control Valve
28	Bucket Control Valve
29	Stick Control Valve
30	AWS Rear Axle Brakes
31	AWS Brake Reservoir Tank Group
32	AWS Brake Control Valve
33	AWS 3 Bank Valve (Optional)
34	AWS Inlet Manifold and Steering Priority Valve Group
35	ZWS 3 Bank Valve (Optional)
36	ZWS Inlet Manifold and Steering Priority Valve Group



37	Piston Type Hydraulic Pump
38	Hydraulic Oil Tank
39	Hydraulic Oil Cooler
40	AWS Oil Pressure Switch
41	Lift Control Valve
42	Tilt Control Valve
43	Ride Control Pressure Switch (Optional)
44	Lift Cylinders
45	AWS Rear Steering Cylinder (Optional)
46	Ride Control Solenoid Valve (Optional)
47	Ride Control Accumulator (Optional)
48	AWS Steering Valve and Mounting Group
49	AWS Valve Assembly
50	Tilt Cylinders
51	Return Line Hydraulic Oil Filter
52	Orifice Diameter 0.4 mm (0.02 in)
53	Orifice Diameter 1.5 mm (0.06 in)
54	Orifice Diameter 1.2 mm (0.05 in)
55	Fluid from AWS brake valve to AWS steering valve
56	Signal from AWS brake reservoir to AWS steering valve