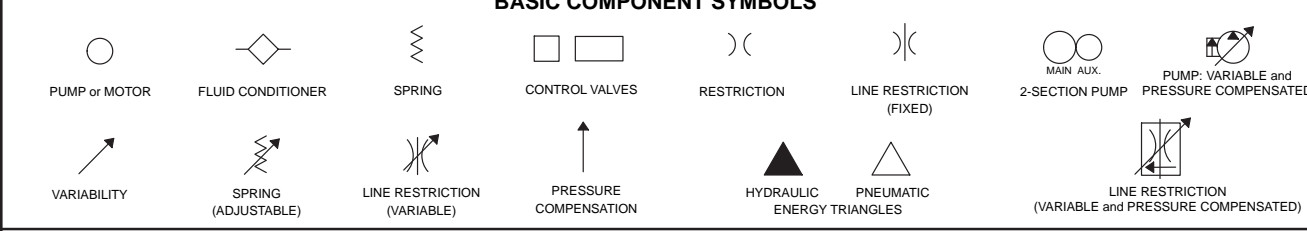
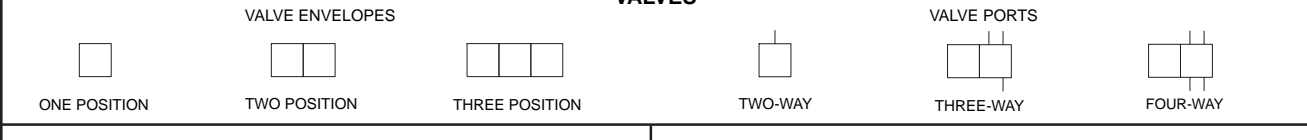
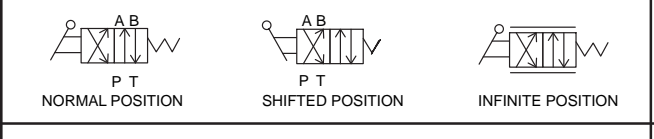

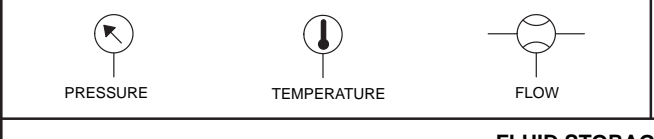

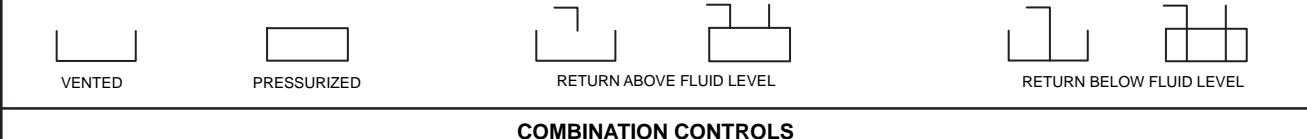


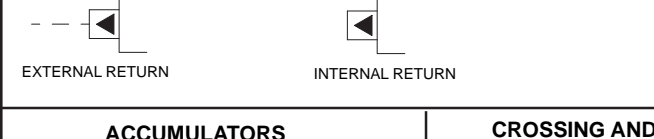

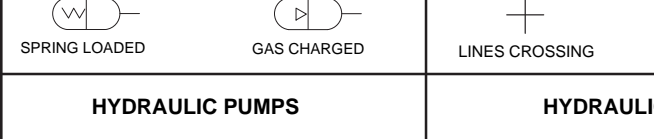
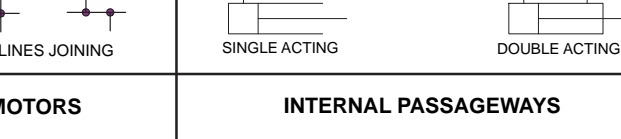
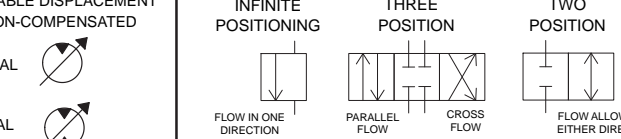





Schematic

311 and 312 Excavators
Hydraulic System (Attachment)
2 Pump Flow

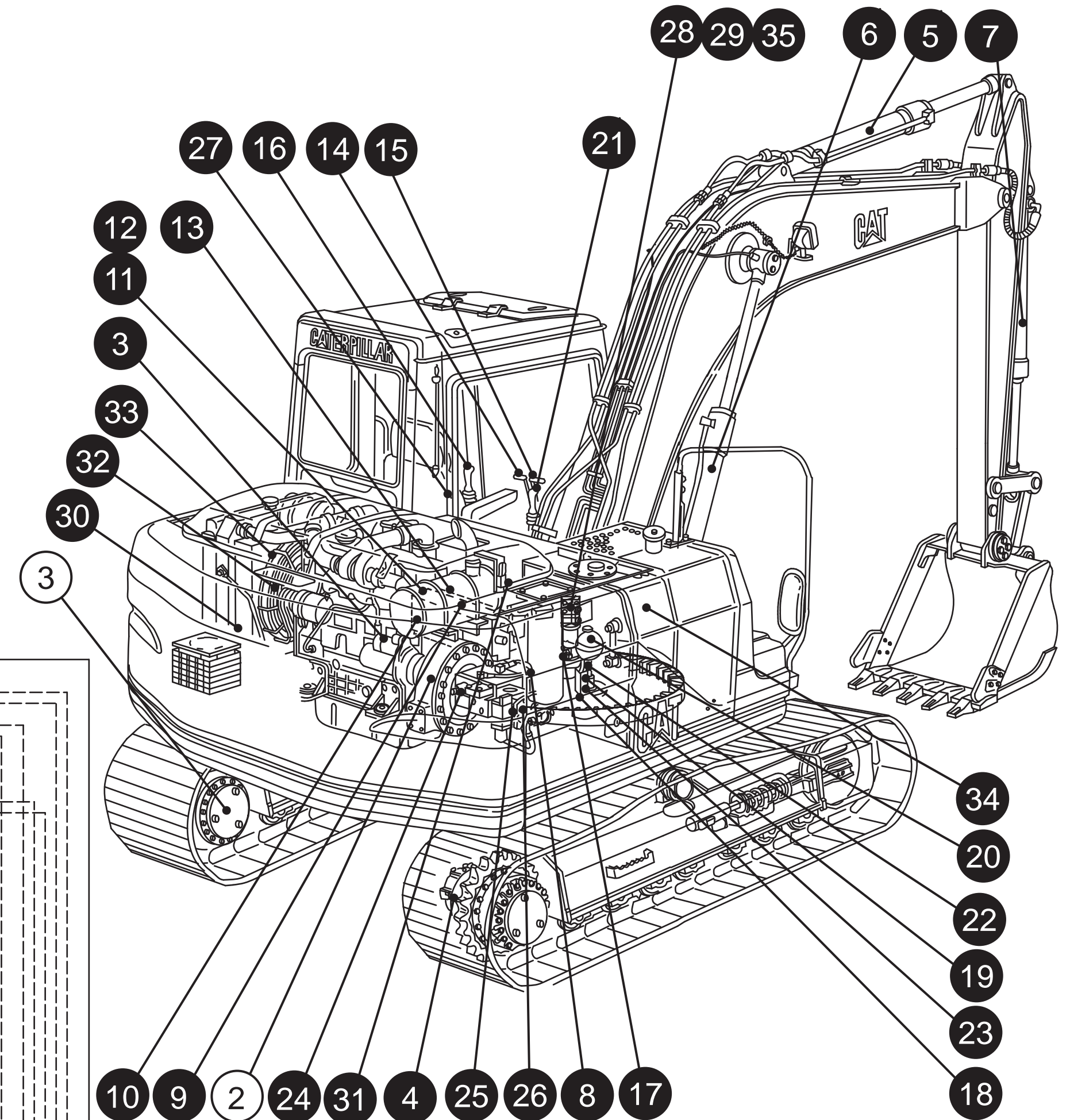
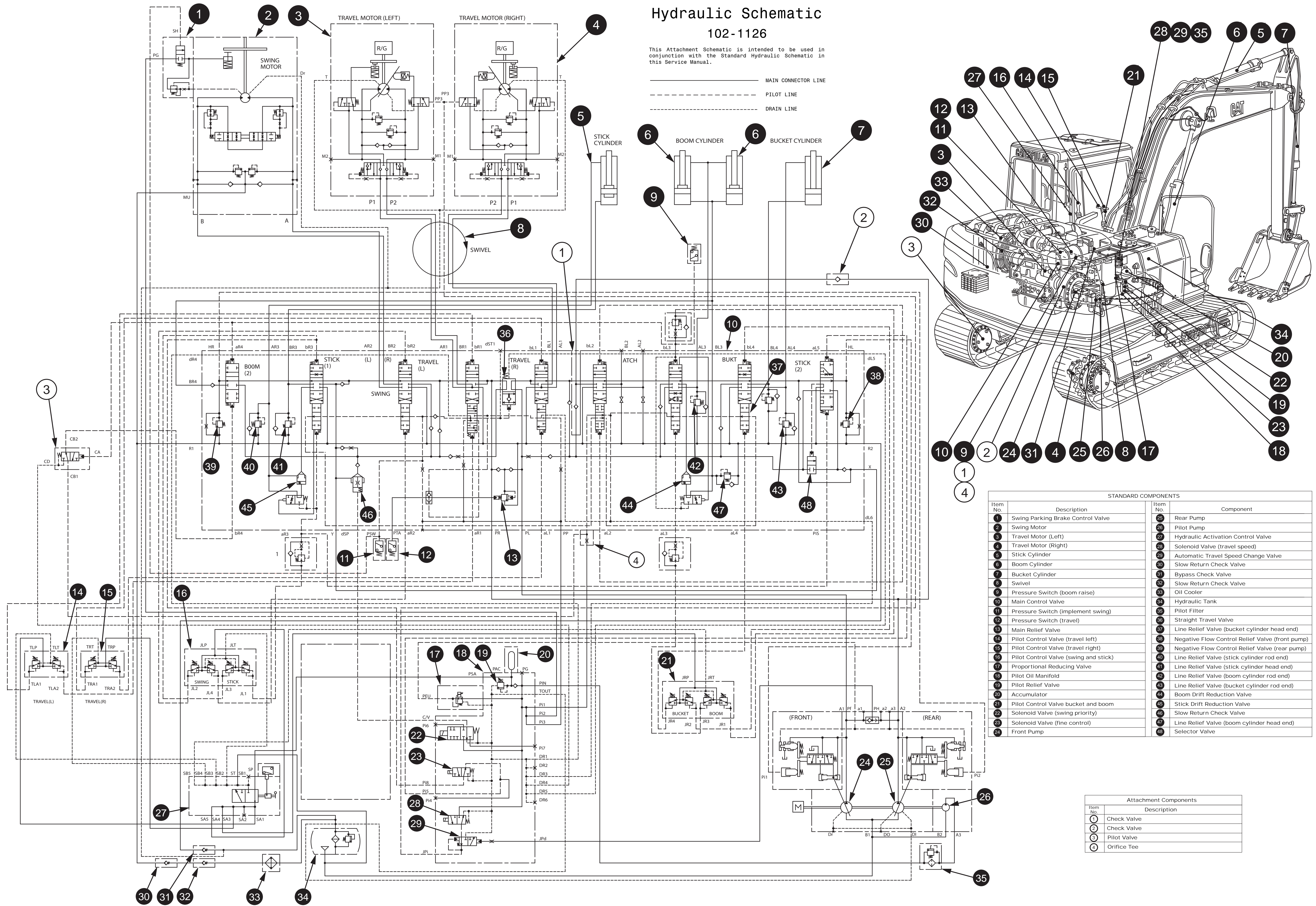
311: 312:
9LJ1-UP 6GK1-UP
2KM1-UP 6BL1-UP

FLUID POWER SYMBOLS		
BASIC COMPONENT SYMBOLS 		
VALVES VALVE ENVELOPES 		
CONTROL VALVES 		CHECK VALVES 
MEASUREMENT 		ROTATING SHAFTS 
FLUID STORAGE RESERVOIRS 		
COMBINATION CONTROLS 		
MANUAL CONTROL SYMBOLS 		
RELEASED PRESSURE 		PILOT CONTROL SYMBOLS 
ACCUMULATORS 	CROSSING AND JOINING LINES 	HYDRAULIC AND PNEUMATIC CYLINDERS 
HYDRAULIC PUMPS 	HYDRAULIC MOTORS 	INTERNAL PASSAGEWAYS 

Hydraulic Schematic 102-1126

This Attachment Schematic is intended to be used in conjunction with the Standard Hydraulic Schematic in this Service Manual.

— MAIN CONNECTOR LINE
- - - PILOT LINE
- - - DRAIN LINE



STANDARD COMPONENTS			
Item No.	Description	Item No.	Component
1	Swing Parking Brake Control Valve	25	Rear Pump
2	Swing Motor	26	Pilot Pump
3	Travel Motor (Left)	27	Hydraulic Activation Control Valve
4	Travel Motor (Right)	28	Solenoid Valve (travel speed)
5	Stick Cylinder	29	Automatic Travel Speed Change Valve
6	Boom Cylinder	30	Slow Return Check Valve
7	Bucket Cylinder	31	Bypass Check Valve
8	Swivel	32	Slow Return Check Valve
9	Pressure Switch (boom raise)	33	Oil Cooler
10	Main Control Valve	34	Hydraulic Tank
11	Pressure Switch (implement swing)	35	Pilot Filter
12	Pressure Switch (travel)	36	Straight Travel Valve
13	Main Relief Valve	37	Line Relief Valve (bucket cylinder head end)
14	Pilot Control Valve (travel left)	38	Negative Flow Control Relief Valve (front pump)
15	Pilot Control Valve (travel right)	39	Negative Flow Control Relief Valve (rear pump)
16	Pilot Control Valve (swing and stick)	40	Line Relief Valve (stick cylinder rod end)
17	Proportional Reducing Valve	41	Line Relief Valve (stick cylinder head end)
18	Pilot Oil Manifold	42	Line Relief Valve (boom cylinder rod end)
19	Pilot Relief Valve	43	Line Relief Valve (bucket cylinder rod end)
20	Accumulator	44	Boom Drift Reduction Valve
21	Pilot Control Valve bucket and boom	45	Stick Drift Reduction Valve
22	Solenoid Valve (swing priority)	46	Slow Return Check Valve
23	Solenoid Valve (fine control)	47	Line Relief Valve (boom cylinder head end)
24	Front Pump	48	Selector Valve

Attachment Components	
Item No.	Description
1	Check Valve
2	Check Valve
3	Pilot Valve
4	Orifice Tee