

Schematic

924K, 930K and 938K Wheel Loader Hydraulic System

924K: ENC1-UP
HJF1-UP

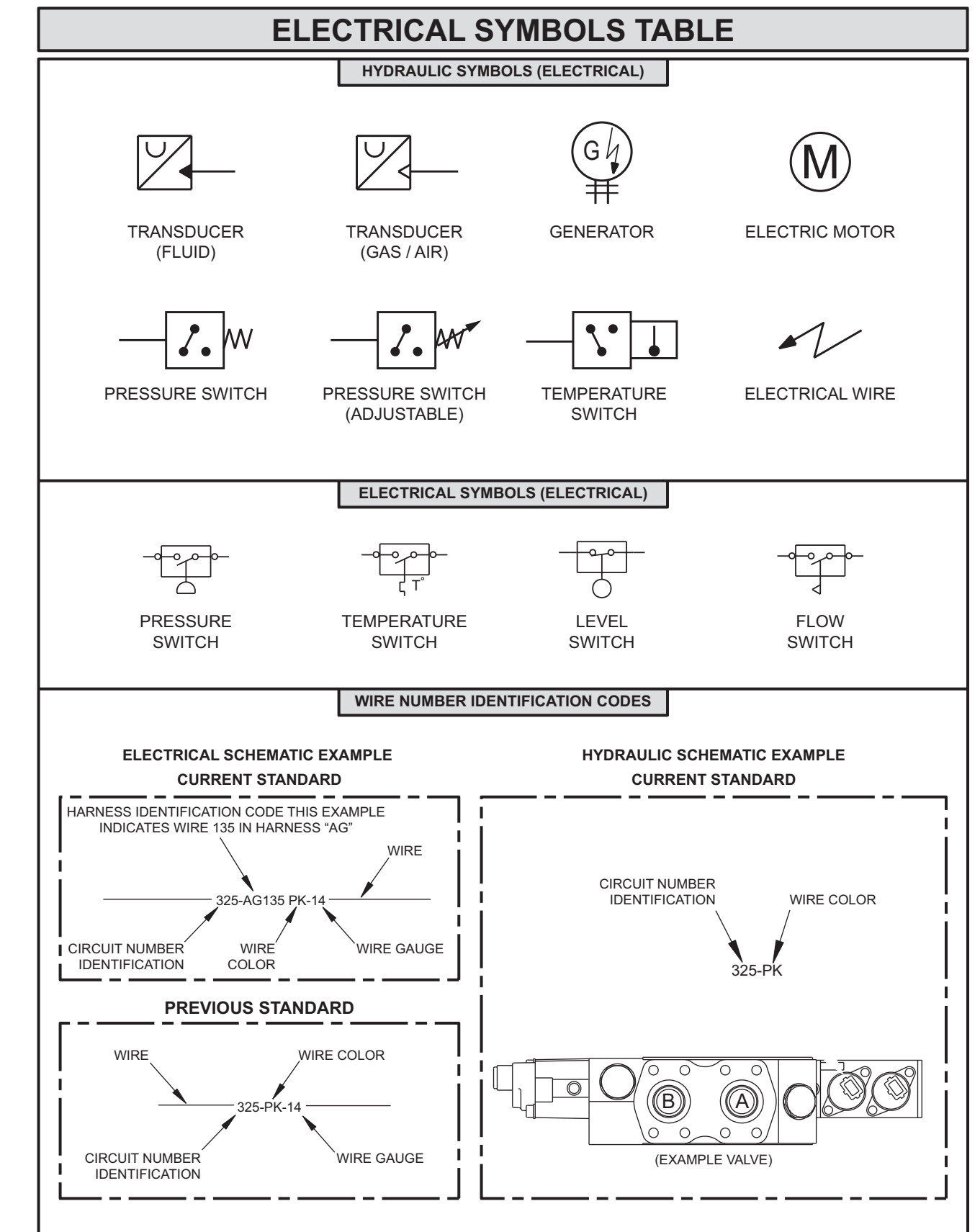
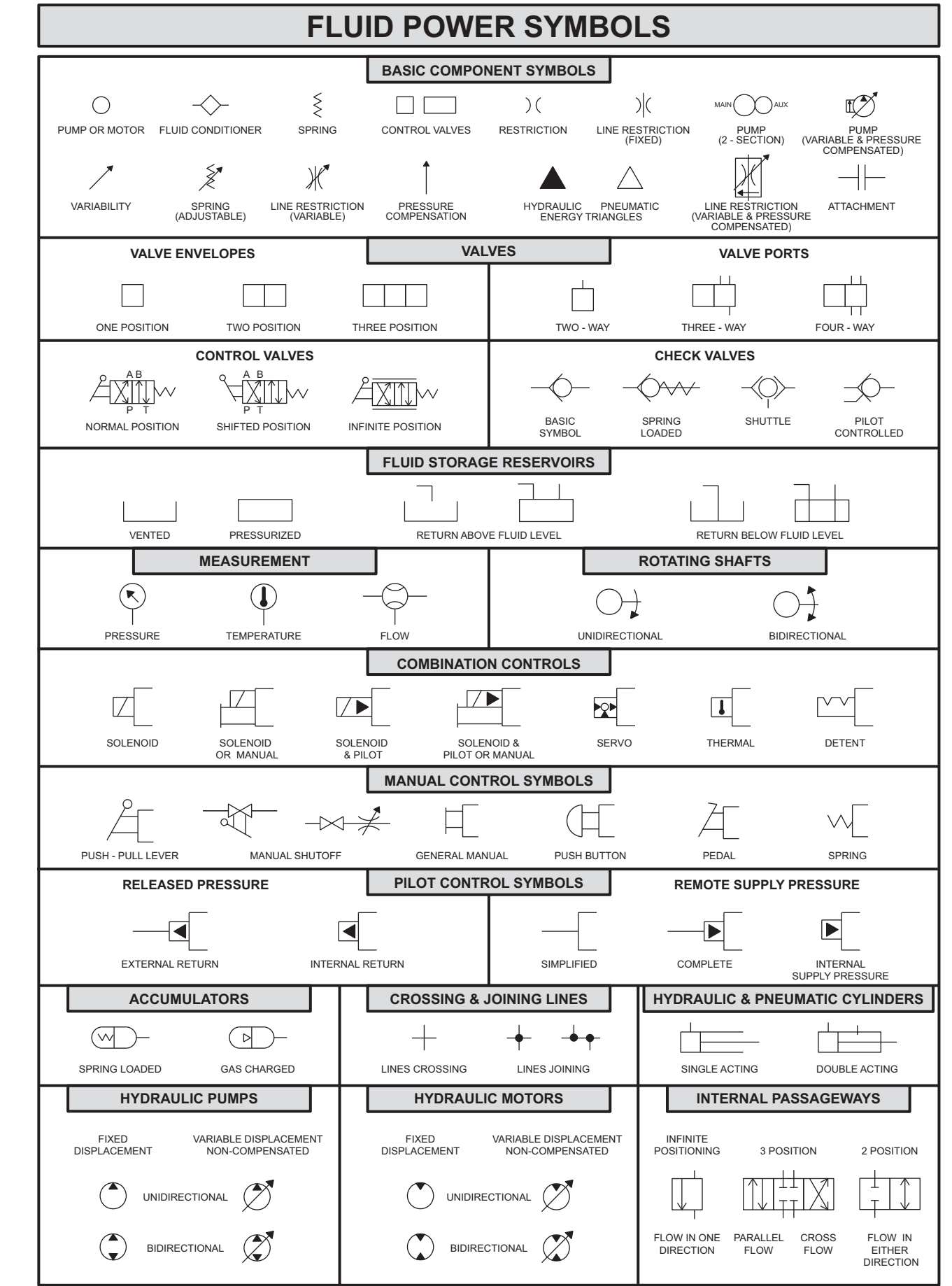
930K: DYB1-UP
EYE1-UP

938K: XXT1-UP
HFW1-UP

Volume 1 of 2: Drive Circuits

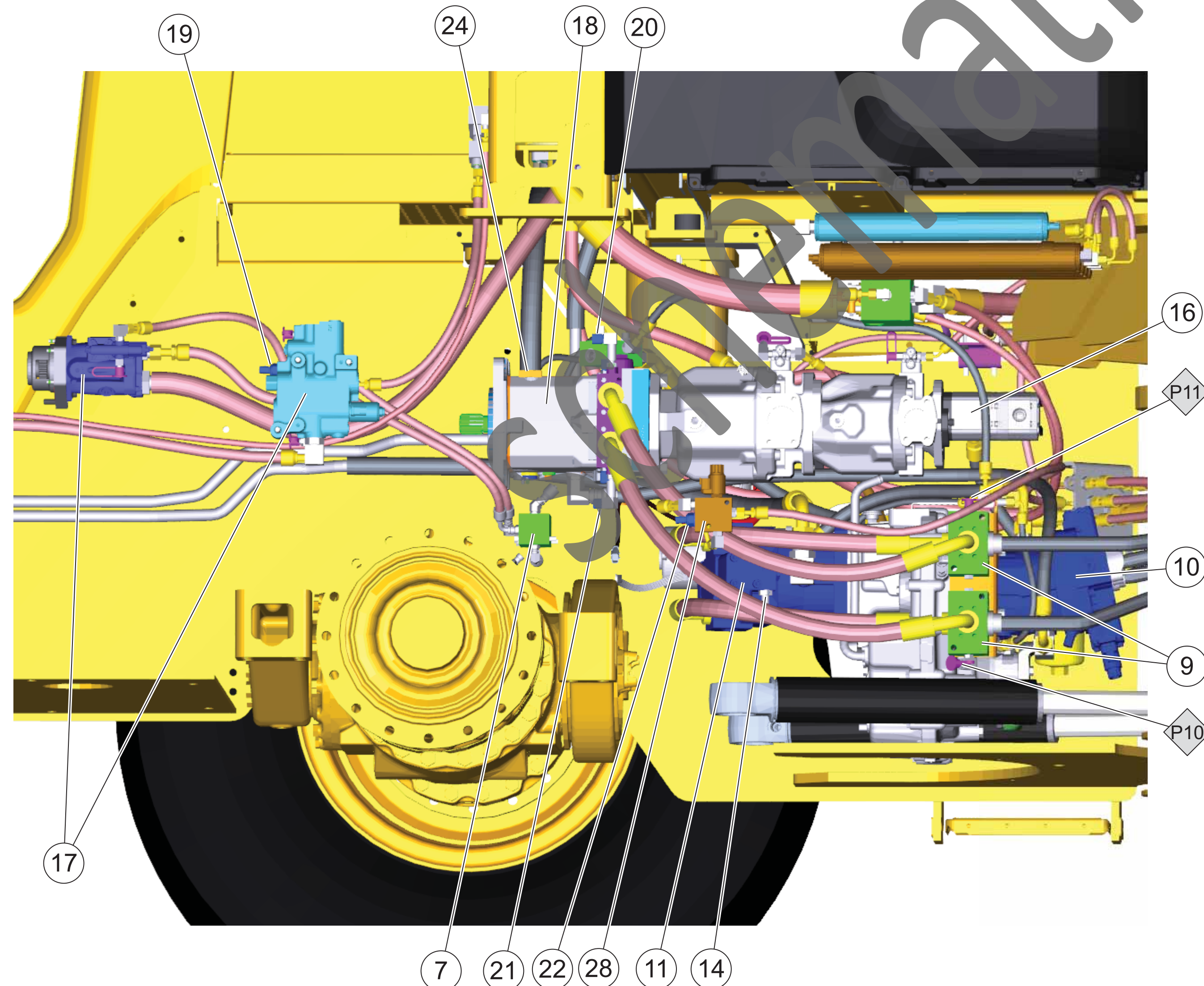
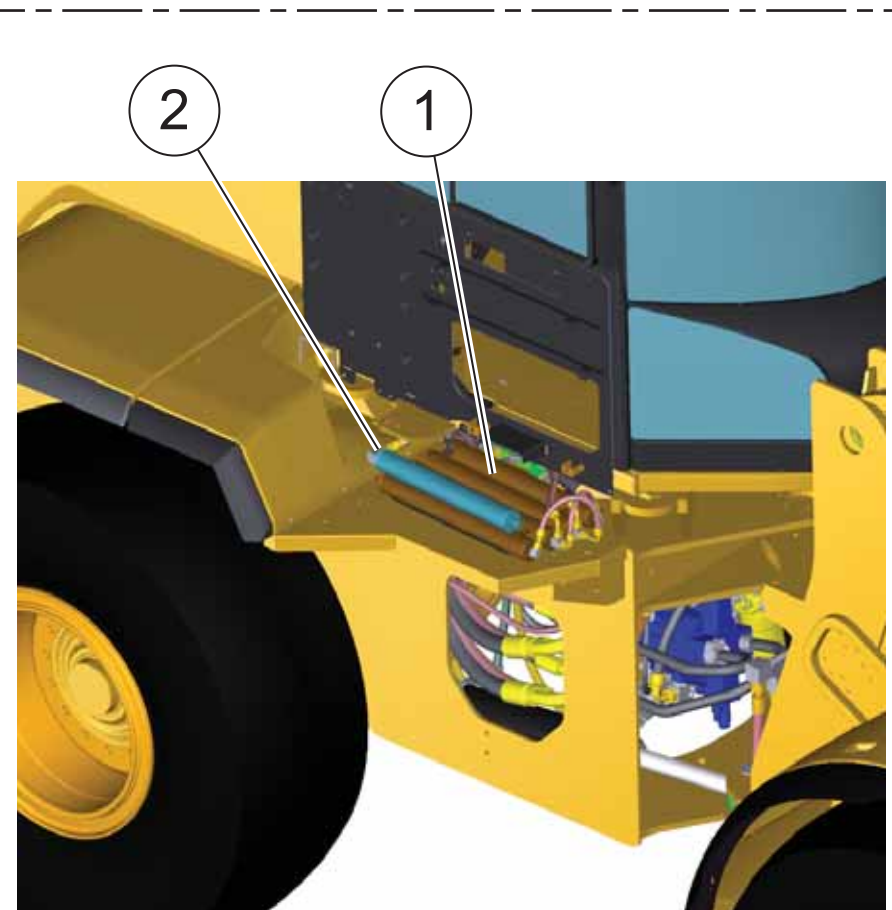
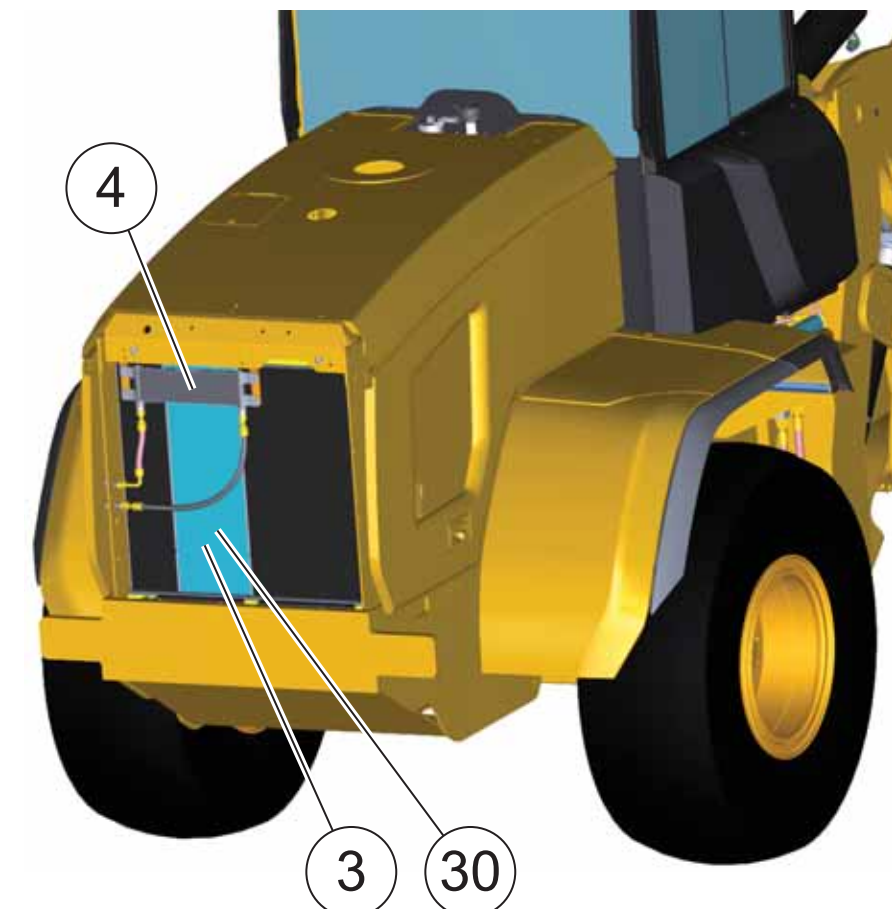
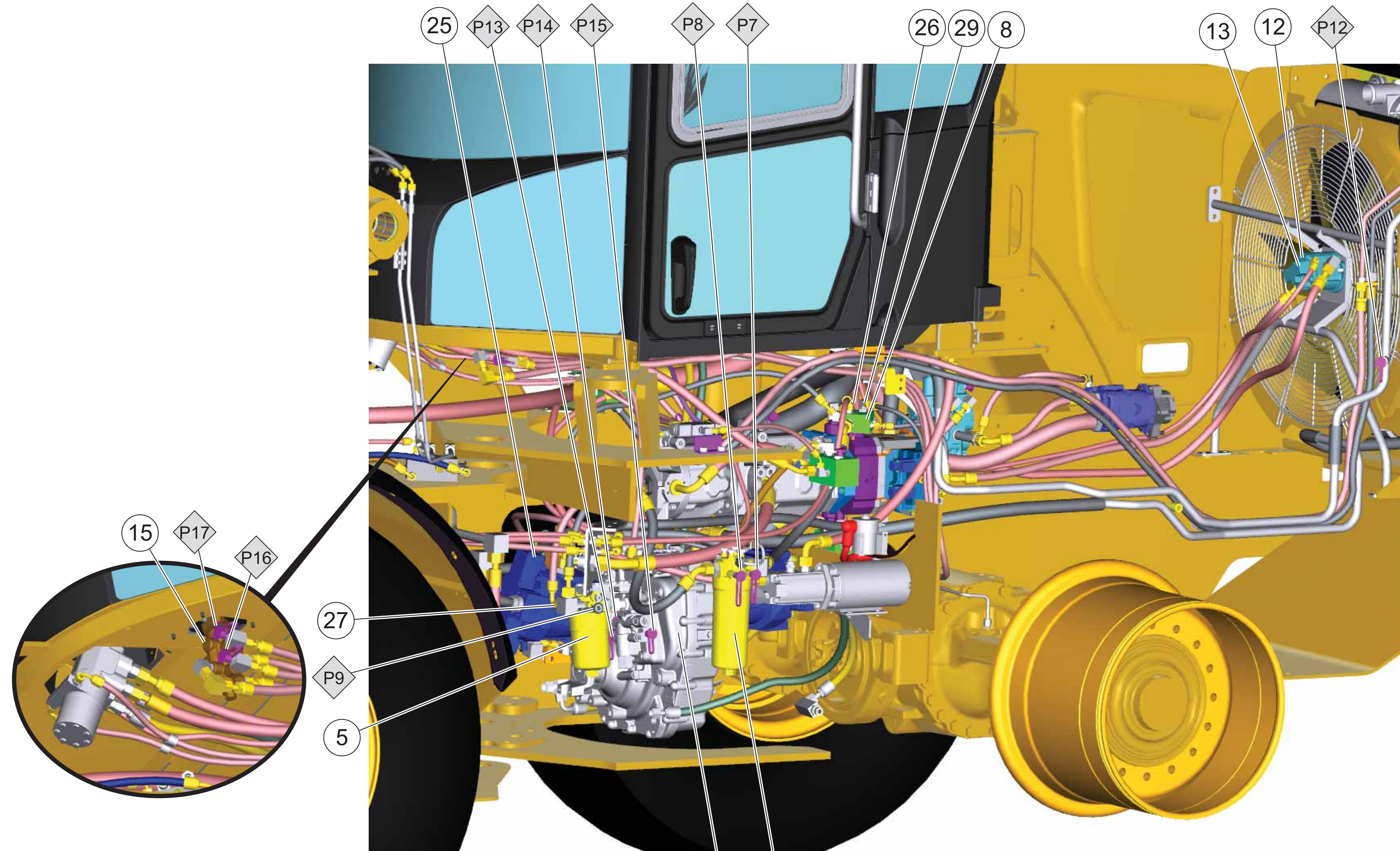
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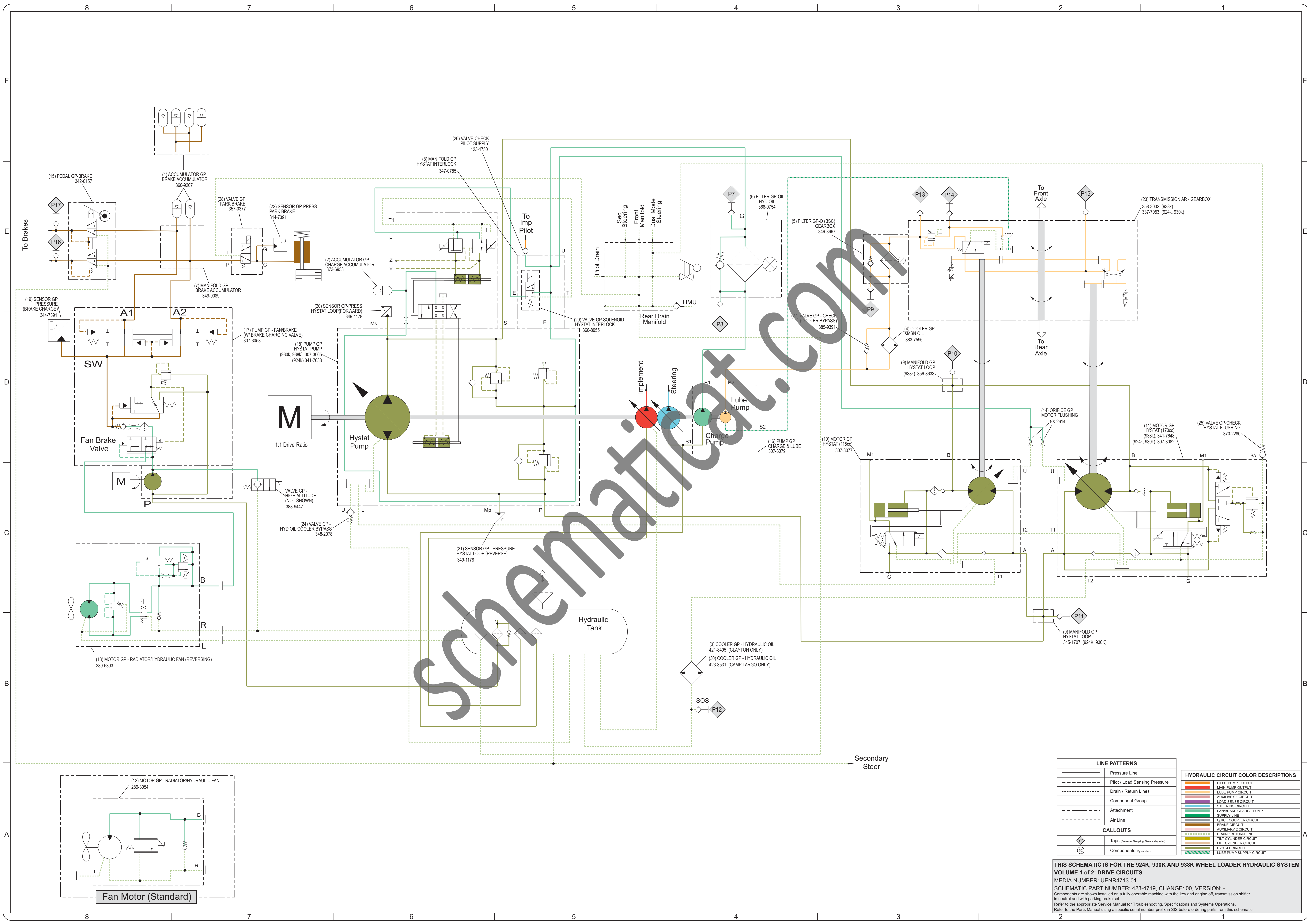
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Component Location (Volume 1)			
Description	Part Number	Machine Location	Schematic Location
Accumulator Gp - Brake	360-9207	1	E-7, E-8
Accumulator Gp - Charge	373-6953	2	E-6
Cooler Gp - Hydraulic Oil (Clayton Only)	421-8495	3	C-4
Cooler Gp - Transmission Oil (938K)	383-7596	4	D-3
Filter Gp - Gearbox	369-3987	5	E-3
Filter Gp - Hydraulic Oil	369-0754	6	E-4
Manifold Gp - Brake Accumulator	349-9089	7	E-7, E-8
Manifold Gp - Hystat Interlock Valve	347-0785	8	E-6
Manifold Gp - Hystat Loop (924K, 930K)	345-1707	9	D-3, B-2
Manifold Gp - Hystat Loop (938K)	356-8633		
Motor Gp - Hystat (115cc)	307-3077	10	C-3
Motor Gp - Hystat (152cc) (924K, 930K)	307-3082		
Motor Gp - Hystat (170cc) (938K)	341-7648	11	C-1
Motor Gp - Radiator/Hydraulic Fan	289-6394	12	C-8
Motor Gp - Radiator/Hydraulic Fan (Reversing)	289-6393	13	C-8
Orifice Gp - Motor Flushing Connector	88-2614	14	D-2
Pedal Gp - Brake	342-0157	15	E-8
eCharge/LubPump Gp -	307-3079	16	D-4
Pump Gp - Fan/Brake (W/Brake Charging Valve)	307-3058	17	D-7, D-8
Pump Gp - Hystat (924K)	341-7638	18	D-6
Pump Gp - Hystat (930K, 938K)	307-3065		
Sensor Gp - Pressure (Brake Charge)	344-7391	19	D-9
Sensor Gp - Pressure (Hystat Loop FWD)	349-1178	20	E-6, D-6
Sensor Gp - Pressure (Hystat Loop REV)	349-1178	21	C-5
Sensor Gp - Pressure (Park Brake)	344-7391	22	E-7
Transmission Ar - Gearbox (938K)	337-7053	23	E-2
Transmission Ar - Gearbox (924K, 930K)	358-3032		
Valve Gp - Check (Hyd Oil Cooler Bypass)	348-2078	24	C-6
Valve Gp - Check (Hystat Flushing)	370-2280	25	D-1
Valve Gp - Check (Pilot Supply)	129-4750	26	E-5
Valve Gp - Check (Xmen Oil Cooler Bypass)	385-9391	27	D-3
Valve Gp - Park Brake (938K)	357-0377	28	E-7
Valve Gp - Solenoid (Hystat Interlock)	368-8925	29	E-6
Valve Gp - High Altitude / Cold Start	389-9447	Not Shown	C-7
Campe Largo Only			
Cooler Gp - Hydraulic Oil (Campe Largo Only)	423-3531	30	C-4

Tap Location Pressure and Sampling Volume 1		
Tap Number	Description	Schematic Location
P7	Charge Pressure	E-4
P8	Charge Fill	D-4
P9	Gearbox S02 Gauge	E-3
P10	Hystat Forward Drive Pressure	D-3
P11	Hystat Reverse Drive Pressure	C-2
P12	Hydraulic S05 Gauge	B-4
P13	Gearbox Pressure	E-3
P14	Lub Pressure	E-3
P15	Clutch Pressure	E-2
P16	Front Service Brake Pressure	E-8
P17	Rear Service Brake Pressure	E-8





LINE PATTERNS	
—	Pressure Line
- - - -	Pilot / Load Sensing Pressure
.....	Drain / Return Lines
- - - - -	Component Group
- - - - -	Attachment
- - - - -	Air Line
◇	Taps (Pressure, Suction, Sensor, by letter)
⊙	Components (by number)

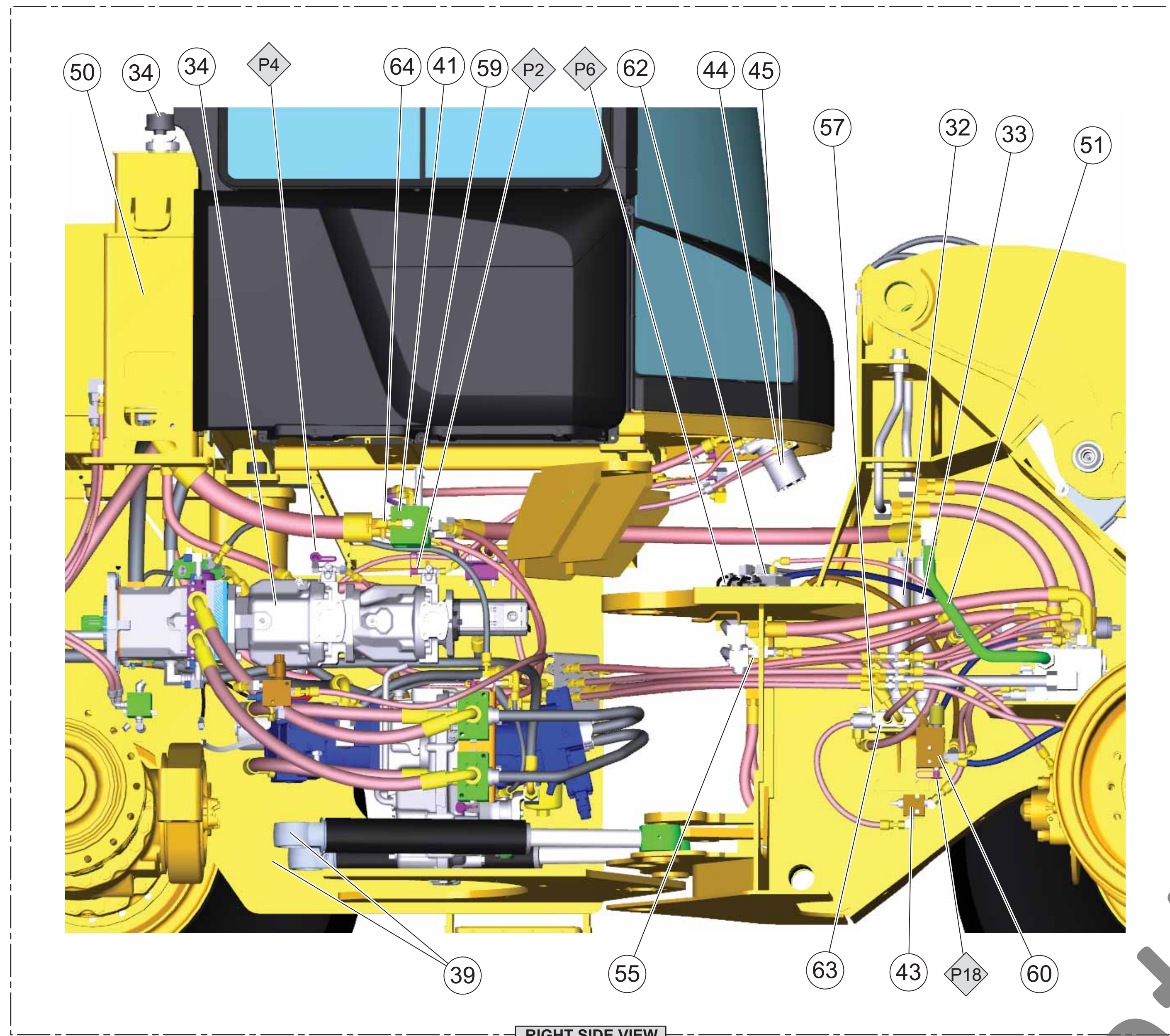
HYDRAULIC CIRCUIT COLOR DESCRIPTIONS	
Orange	PILOT PUMP OUTPUT
Red	MAIN PUMP OUTPUT
Blue	LUBE PUMP CIRCUIT
Green	AUXILIARY 1 CIRCUIT
Purple	LOAD SENSE CIRCUIT
Light Blue	STEERING CIRCUIT
Dark Green	FANBRAKE CHARGE PUMP
Light Green	SUPPLY LINE
Dark Blue	QUICK COUPLER CIRCUIT
Light Purple	BRAKE CIRCUIT
Light Blue	AUXILIARY 2 CIRCUIT
Dark Purple	DRAIN / RETURN LINE
Light Green	TILT CYLINDER CIRCUIT
Dark Green	LIFT CYLINDER CIRCUIT
Light Purple	HYSTAT CIRCUIT
Dark Purple	LUBE PUMP SUPPLY CIRCUIT

CALLOUTS

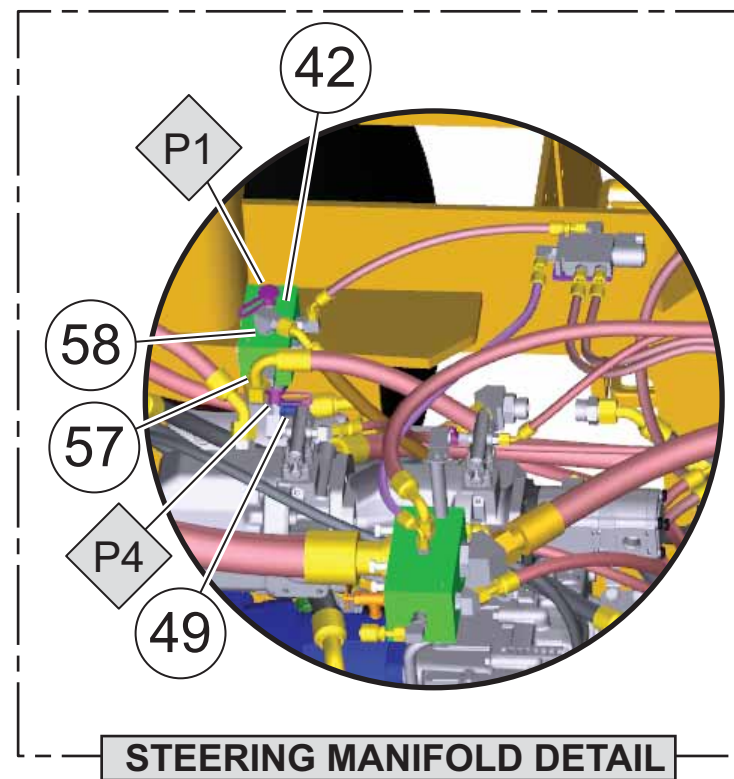
◇ Taps (Pressure, Suction, Sensor, by letter)

⊙ Components (by number)

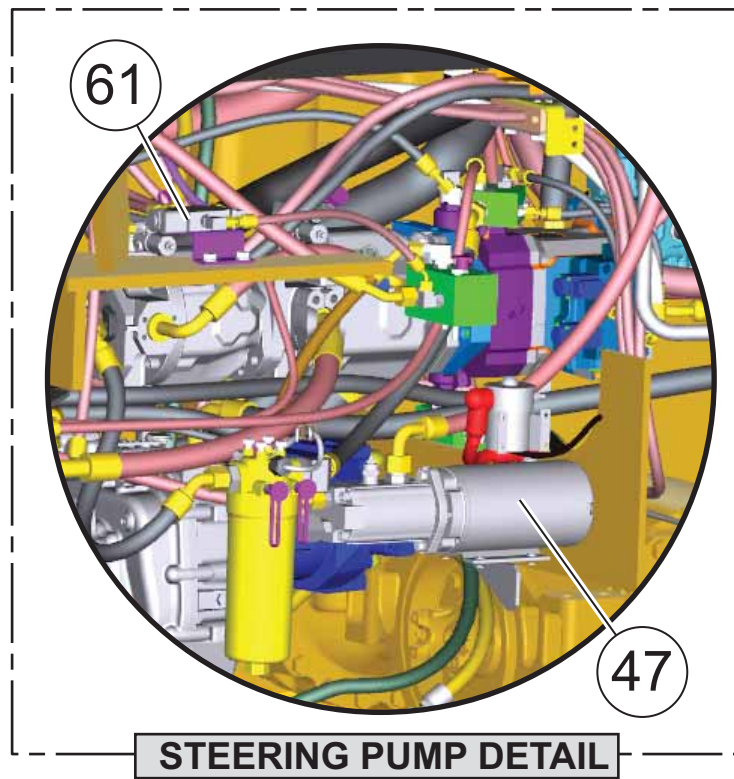
THIS SCHEMATIC IS FOR THE 924K, 930K AND 938K WHEEL LOADER HYDRAULIC SYSTEM
VOLUME 1 of 2: DRIVE CIRCUITS
 MEDIA NUMBER: UENR4713-01
 SCHEMATIC PART NUMBER: 423-4719, CHANGE: 00, VERSION: -
 Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.
 Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.



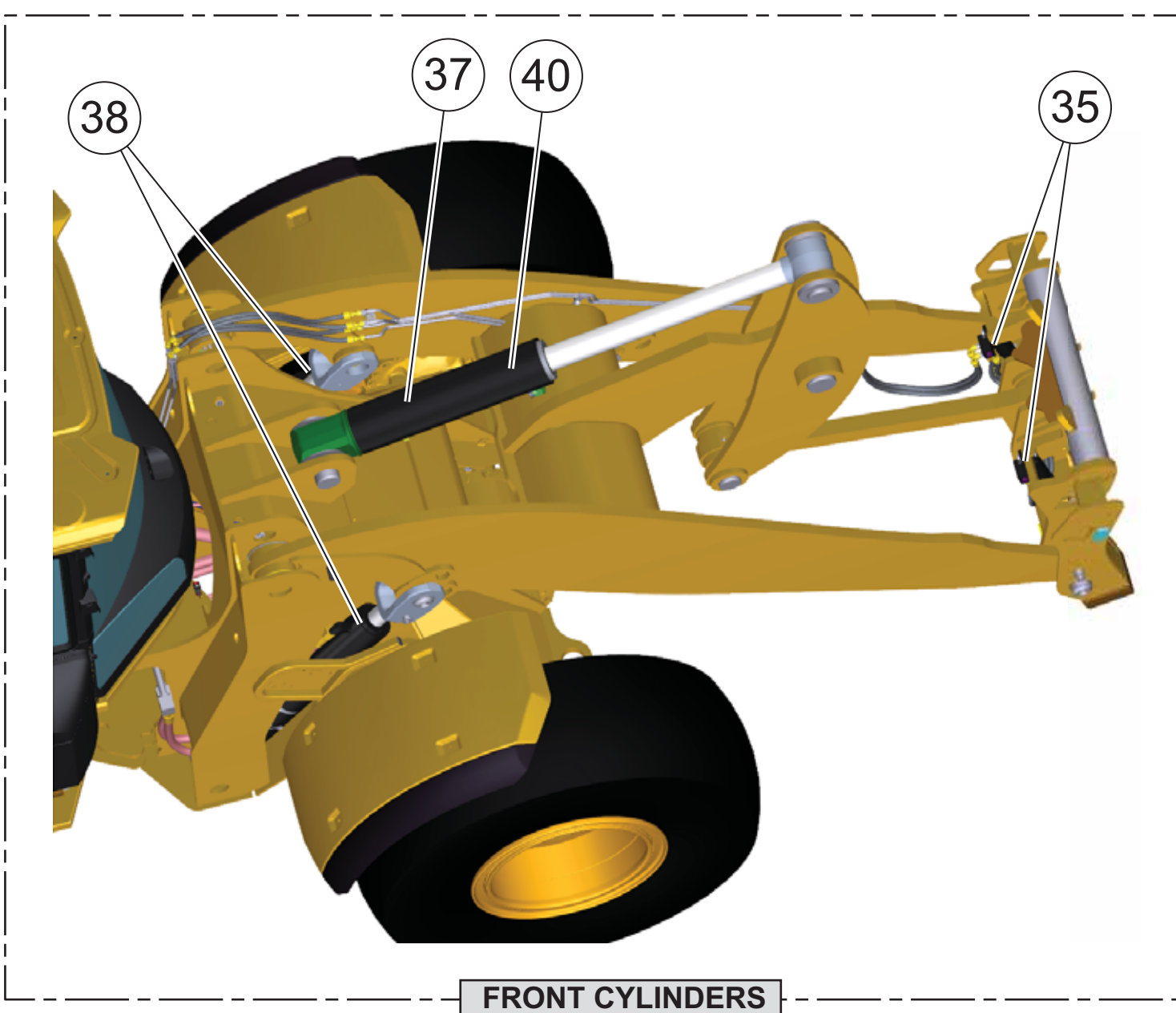
RIGHT SIDE VIEW



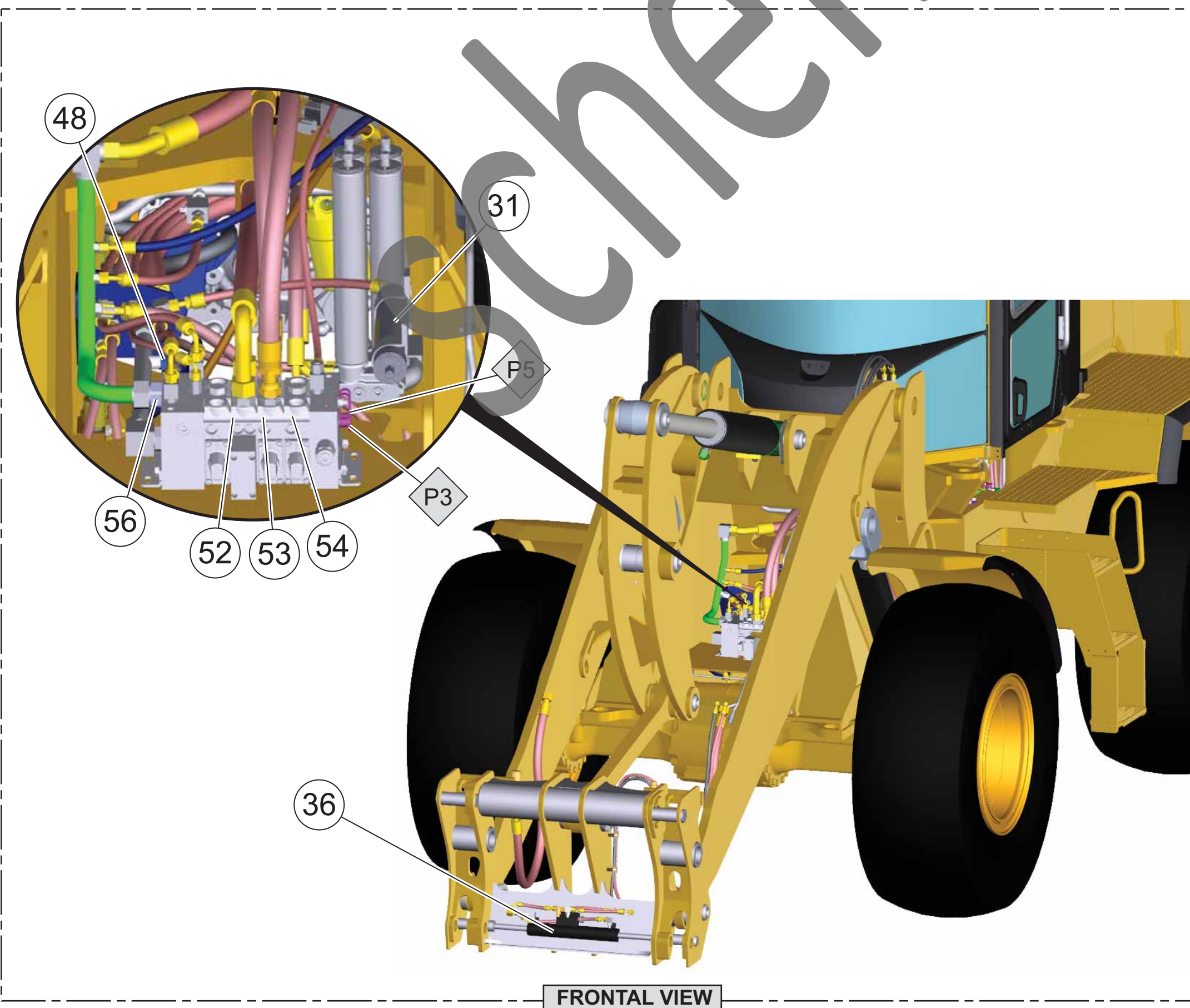
STEERING MANIFOLD DETAIL



STEERING PUMP DETAIL



FRONT CYLINDERS



FRONTAL VIEW

Schematic

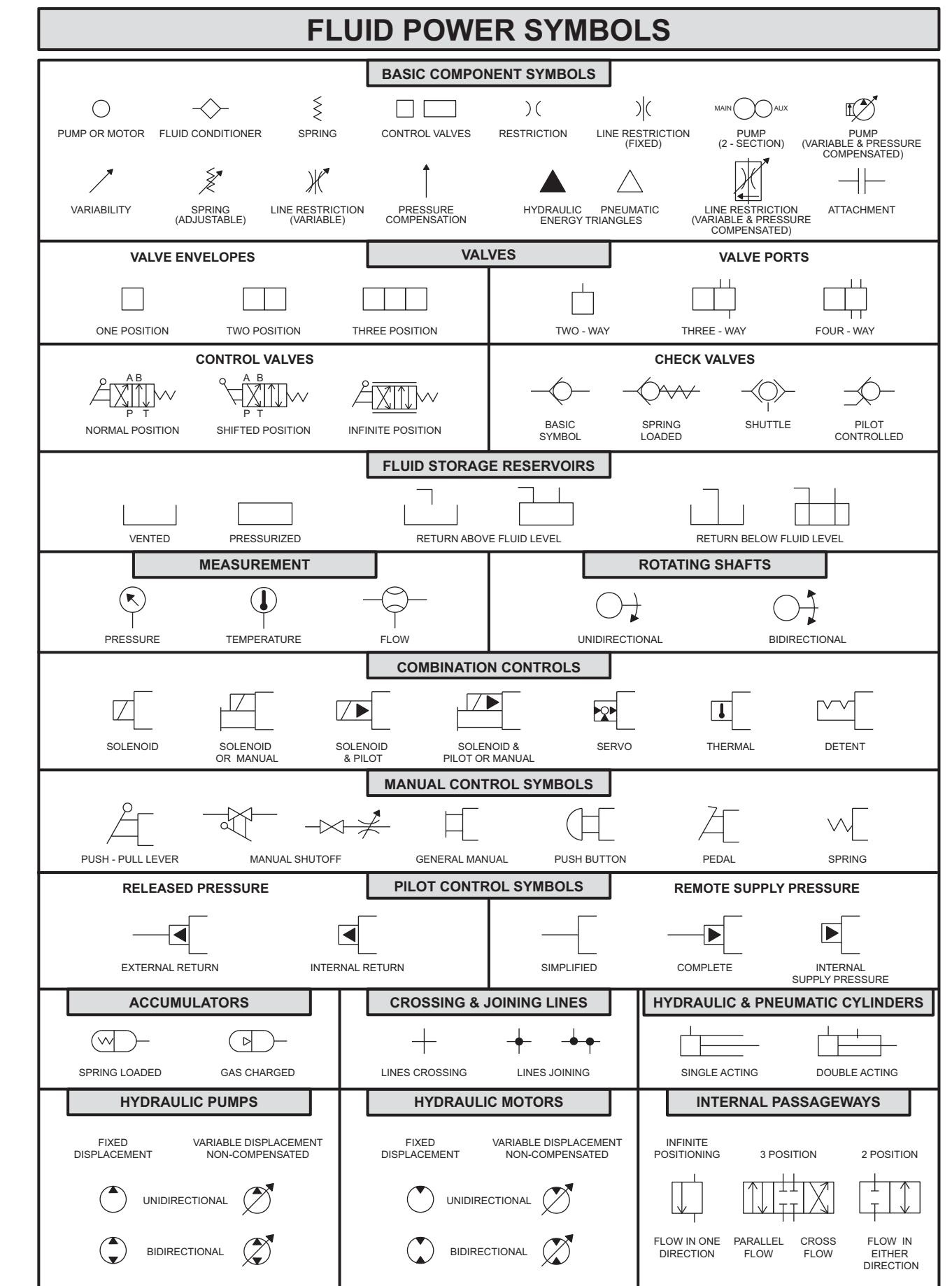
924K, 930K and 938K Wheel Loader Hydraulic System

924K: ENC1-UP HJF1-UP
930K: DYE1-UP EYE1-UP
938K: XXT1-UP HFW1-UP

Volume 2 of 2: Implement Circuits

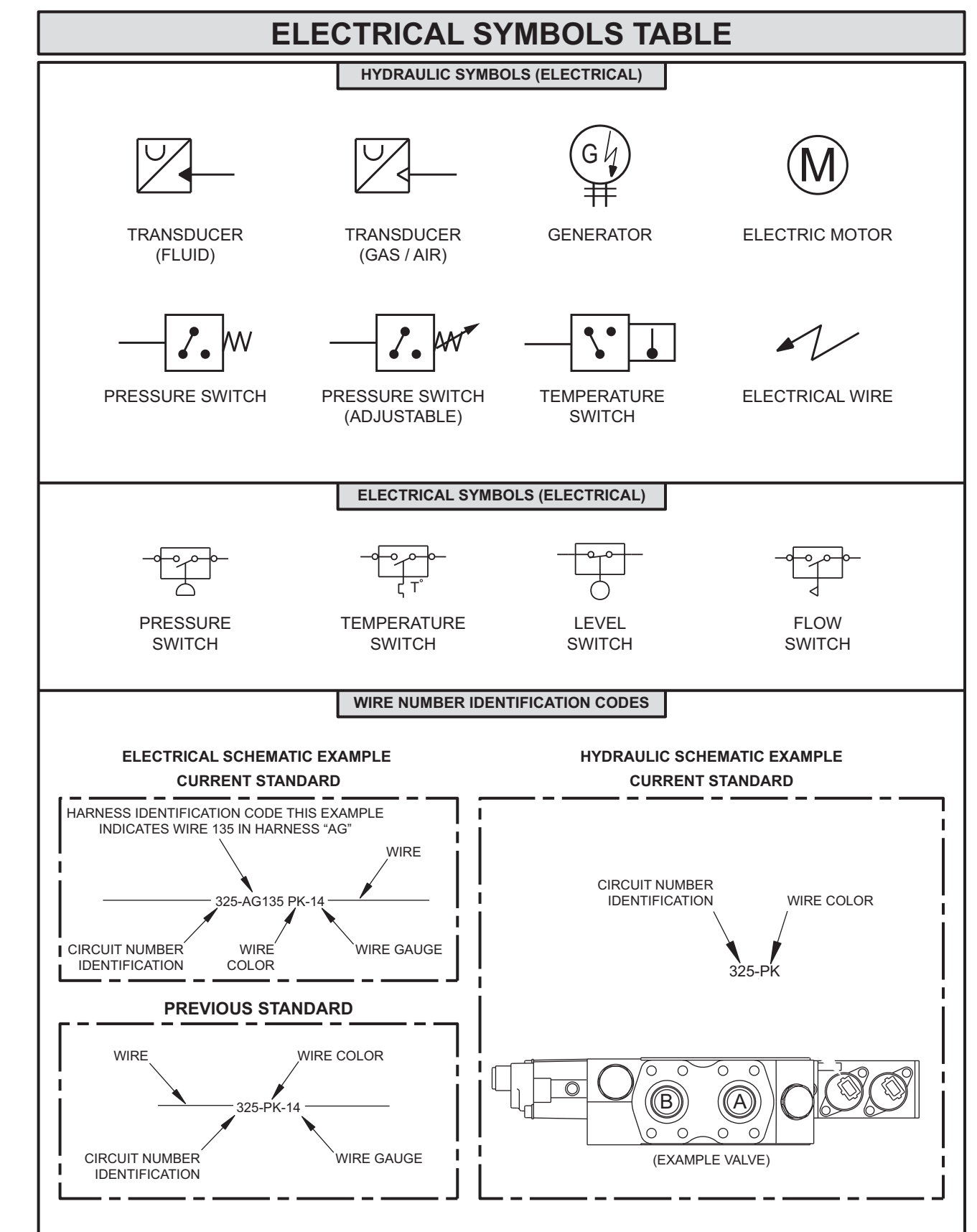
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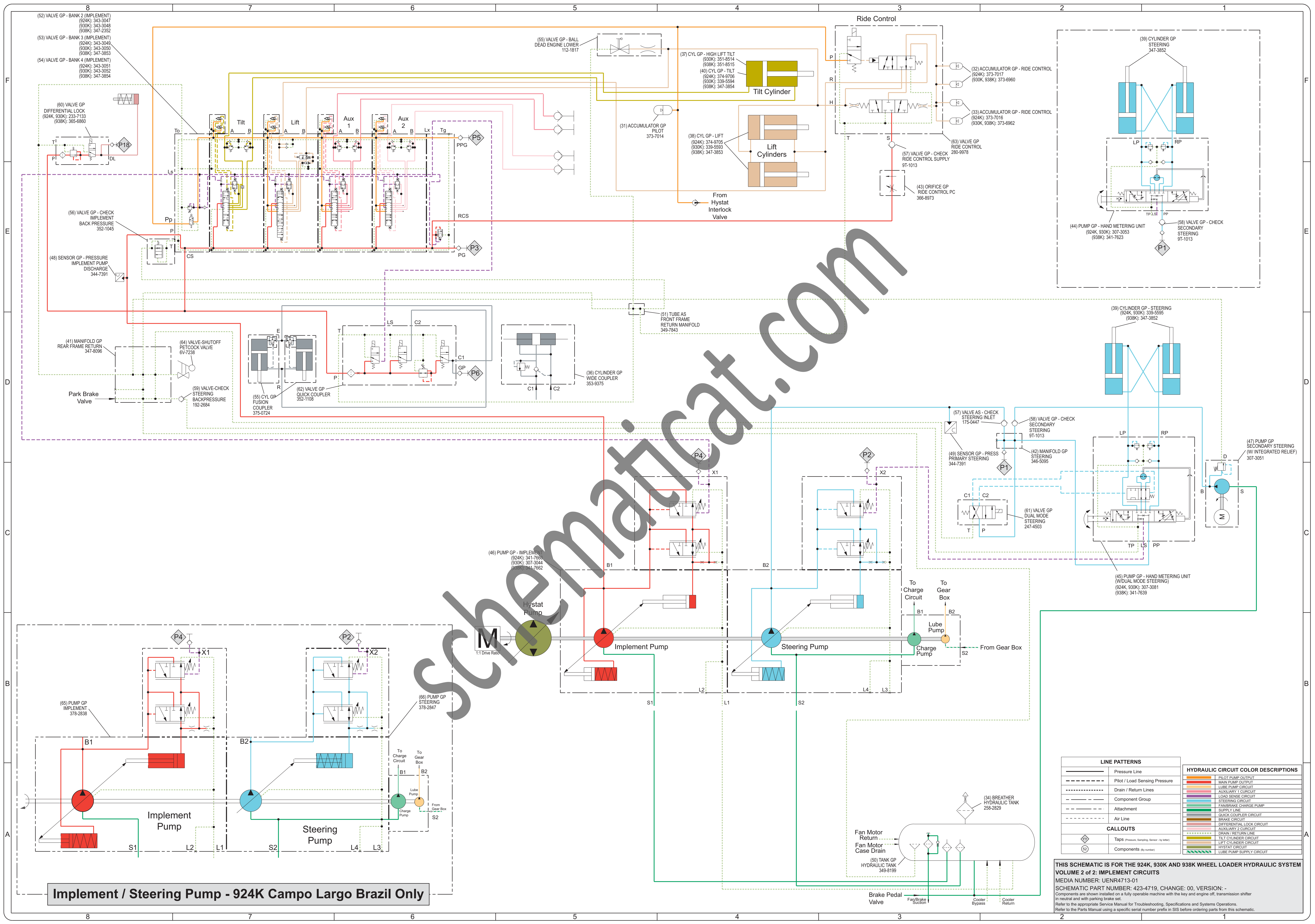
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Component Location (Volume 2)				
Description	Part Number	Machine Location	Schematic Location	
Accumulator Gp - Pilot	373-7014	31	F-4	
Accumulator Gp - Ride Control (924K)	373-7017	32	F-3	
Accumulator Gp - Ride Control (930K, 938K)	373-6960	32	F-3	
Accumulator Gp - Ride Control (924K)	373-7016	33	F-3	
Accumulator Gp - Ride Control (930K, 938K)	373-6962	33	F-3	
Breather - Hydraulic Tank	258-2929	34	A-2	
Cylinder Gp - Fusion Coupler	375-0724	35	D-7	
Cylinder Gp - Wide Coupler	353-9375	36	D-5	
Cylinder Gp - High L/R Tilt (930K)	351-8514	37	F-4	
Cylinder Gp - High L/R Tilt (938K)	351-8515	37	F-4	
Cylinder Gp - Lift (924K)	374-9705	38	F-4	
Cylinder Gp - Lift (930K)	339-5593	38	F-4	
Cylinder Gp - Lift (938K)	347-3853	38	F-4	
Cylinder Gp - Steering (924K, 930K)	339-5595	39	D-1	
Cylinder Gp - Steering (938K)	347-3852	39	D-1	
Cylinder Gp - Tilt (924K)	374-9706	40	F-4	
Cylinder Gp - Tilt (930K)	339-5594	40	F-4	
Cylinder Gp - Tilt (938K)	347-3854	40	F-4	
Manifold Gp - Rear Frame Return	347-8096	41	D-8	
Manifold Gp - Steering	346-5095	42	D-2	
Orifice Gp - Ride Control PC	368-8973	43	E-3	
Pump Gp - Hand Metering (924K, 930K)	307-3553	44	E-2	
Pump Gp - Hand Metering (938K)	341-7623	44	E-2	
Pump Gp - Hand Metering (W/Dual Mode Steering - 924K, 930K)	307-3081	45	C-2	
Pump Gp - Hand Metering (W/Dual Mode Steering - 938K)	341-7639	45	C-2	
Pump Gp - Implement Pump (924K)	341-7660	46	C-5	
Pump Gp - Implement Pump (930K)	307-3044	46	C-5	
Pump Gp - Implement Pump (938K)	341-7662	46	C-5	
Pump Gp - Secondary Steering (W/Integrated Relief)	307-3051	47	D-1	
Sensor Gp - Pressure (Implement Pump Discharge)	344-7391	48	E-8	
Sensor Gp - Pressure (Primary Steering)	344-7391	49	D-3	
Tank Gp - Hydraulic	348-8199	50	A-3	
Tube As - Front Frame Return	349-7643	51	D-5	
Valve Gp - Bank 2 (Implement) (924K)	343-3047	52	F-8	
Valve Gp - Bank 2 (Implement) (930K)	343-3048	52	F-8	
Valve Gp - Bank 2 (Implement) (938K)	347-3852	52	F-8	
Valve Gp - Bank 3 (Implement) (924K)	343-3049	53	F-8	
Valve Gp - Bank 3 (Implement) (930K)	343-3050	53	F-8	
Valve Gp - Bank 3 (Implement) (938K)	347-3853	53	F-8	
Valve Gp - Bank 4 (Implement) (924K)	343-3051	54	F-8	
Valve Gp - Bank 4 (Implement) (930K)	343-3052	54	F-8	
Valve Gp - Bank 4 (Implement) (938K)	347-3854	54	F-8	
Valve Gp - Ball (Dead Engine Lower)	112-1817	55	F-5	
Valve Gp - Check (Implement Backpressure)	352-1045	56	E-8	
Valve Gp - Check (Ride Control Supply)	97-1013	57	F-3	
Valve Gp - Check (Secondary Steering)	97-1013	58	D-2, E-1	
Valve Gp - Check (Steering Backpressure)	192-2684	59	D-7	
Valve Gp - Check (Steering Inlet)	175-0447	57	D-3	
Valve Gp - Differential Lock (924K, 930K)	233-7133	60	F-8	
Valve Gp - Differential Lock (938K)	365-8960	60	F-8	
Valve Gp - Dual Mode	247-4503	61	C-2	
Valve Gp - Quick Coupler	352-1108	62	D-6	
Valve Gp - Ride Control	280-9978	63	F-3	
Valve Gp - Shutoff (Petcock)	67-7238	64	D-7	
Campo Largo Only				
Pump Gp - Implement	378-2838	65	B-8	
Pump Gp - Steering	378-2847	66	B-8	

Tap Location Pressure and Sampling Volume 2		
Tap Number	Description	Schematic Location
P1	Steering Discharge Pressure	C-2, E-1
P2	Steering Loadsense Pressure	D-3, B-6
P3	Implement Discharge Pressure	E-8
P4	Implement Loadsense Pressure	D-4, B-7
P5	Implement Pilot Pressure	E-6
P6	Quick Coupler Pressure	D-6
P18	Differential Lock Pressure	F-8





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