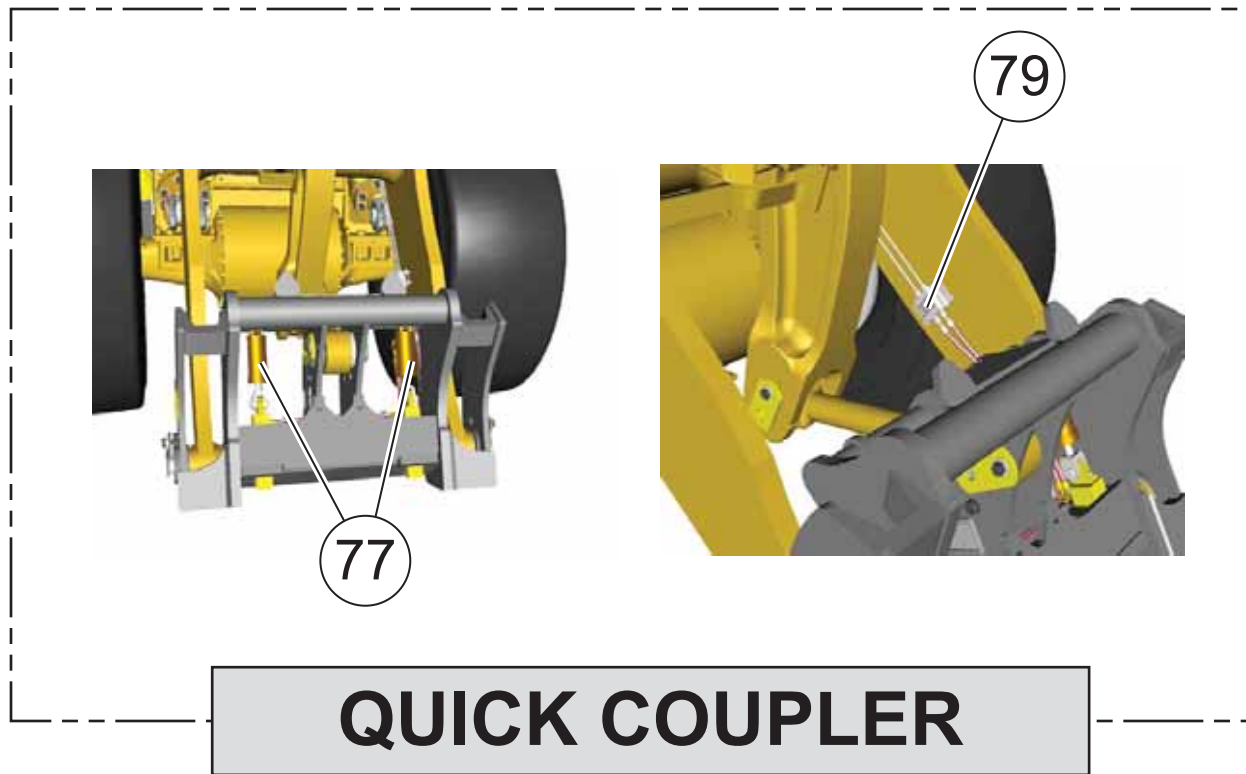
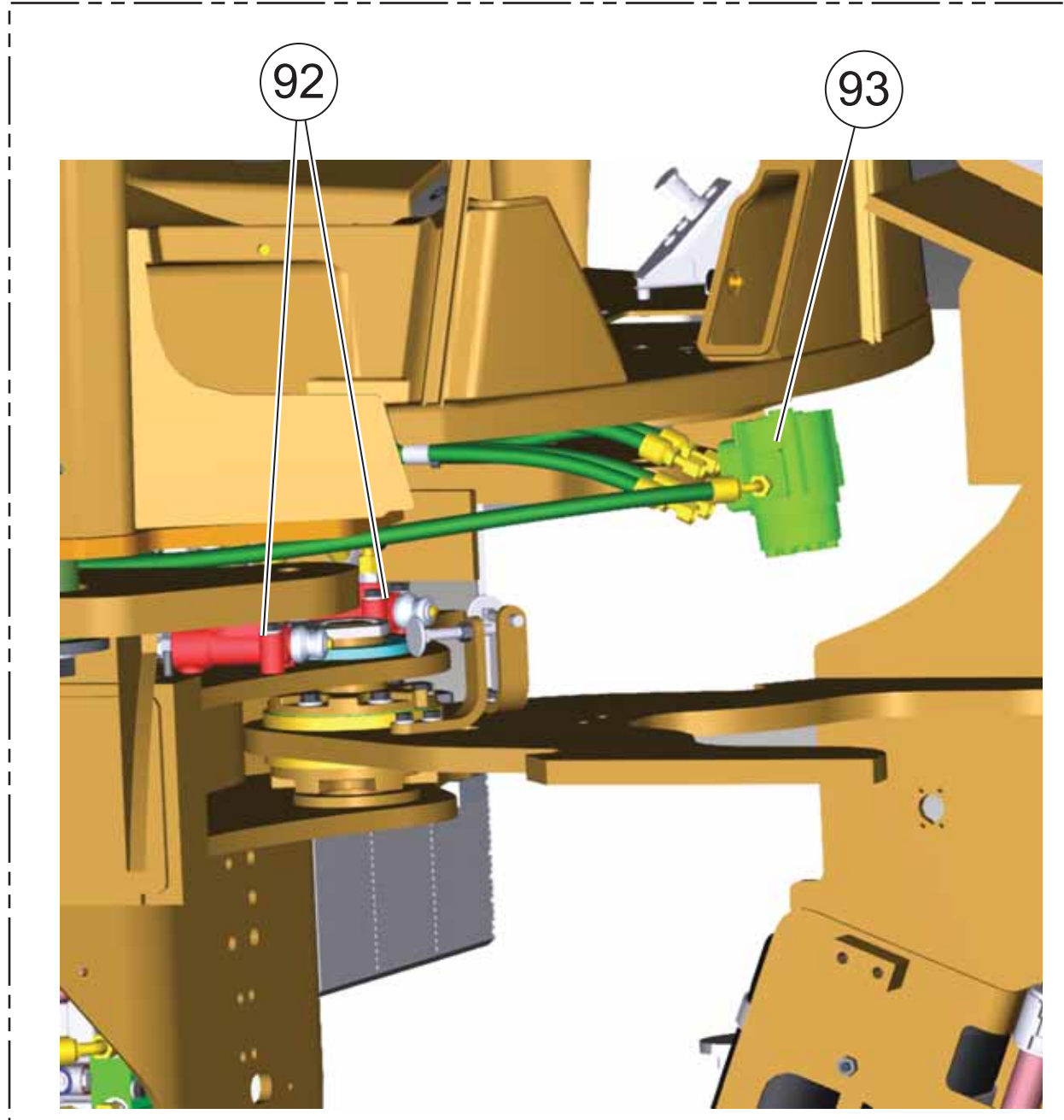


**MACHINE VIEWS**

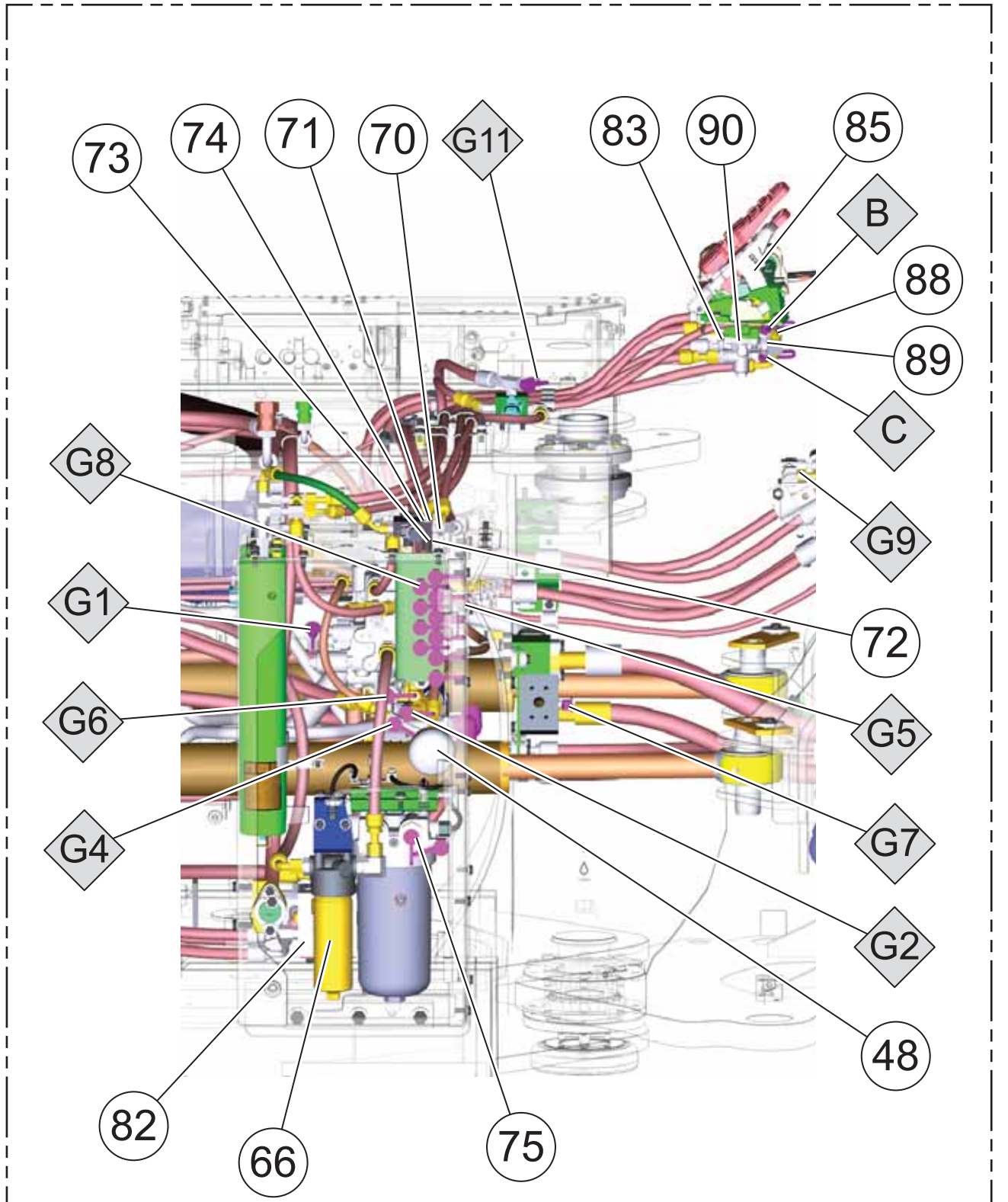
Component Locations			
Description	Part Number	Machine Location	Schematic Location
Accumulator - Pilot	355-9981	1	E-3
Accumulator - Ride Control	460-3921	2	E-1
Accumulator - Ride Control	460-3922	3	E-1
Accumulator - Ride Control	312-2884	4	C-7
<b>Cylinder Tilt</b>			
950 (Standard)	347-5542		F-3
950 (High Lift Attachment)	347-5543		F-3
950 (Logger Attachment)	347-5544	5	F-3
962 (Standard)	347-5538		F-3
962 (High Lift Attachment)	347-5540		F-3
962 (Logger Attachment)	347-5539		F-3
<b>Cylinder Lift</b>			
950 (Standard)	347-5541		F-2
950 (Logger Attachment)	432-6169		F-2
950 And 962 (High Lift)	347-5536	10	F-2
962 (Logger Attachment)	433-4307		F-2
Filter - Return	376-1298	12	B-6
Filter - Return Filter	376-1298	13	C-6
Manifold - Ride Control	432-5661	14	D-1
Pump - Implement	356-8177	15	D-5
Screen - Case Drain Return	118-8693	16	C-7
Sensor - Pressure	344-7391	17	D-2
Sensor - Pressure (PCS Ad Attachment)	349-1178	18	E-1
Sensor - Pressure (PCS Attachment)	349-1178	19	E-1
Tank - Hydraulic	447-1510	20	C-6
Valve - 2 Function Auxiliary (Attachment)	445-6990	22	C-2
Valve - 2 Function Implement With Ride Control	356-8643	23	F-1
Valve - Anti-Drib Seat	356-8661	25	E-3
Valve - Aux Load Sense Check	123-4750	26	D-2
Valve - Backpressure	349-8844	27	D-4
Valve - Implement Lockout Solenoid	333-4242	28	C-3
Valve - Implement Pilot Check	66-4701	29	E-2
Valve - Load Sense Relief/Bleed	377-2891	30	D-3
Valve - Makeup	234-8899	31	E-2
Valve - Manual Lower	112-9177	32	E-1
Valve - Margin Relief	370-8764	33	D-3
Valve - Pilot Operated Check	443-3773	34	E-3
Valve - Pressure Limiter (Auxiliary Function)	371-7764	35	E-2, E-1
Valve - Relief (Til-Road)	451-6640	36	E-3
Valve - Relief (Til-Road)	332-1885	38	E-3
Valve - Ride Control Balance Spool	430-8905	40	D-2
Valve - Ride Control Pad Relief	455-9950	41	D-2
Valve - Ride Control Pressure Limiter	455-6661	42	D-1
Valve - Ride Control Pump Check	123-4750	43	D-2
Valve - Solenoid	313-7668	44	E-2, D-3, D-2, C-1, B-2, B-1
Valve - Solenoid	277-8863	45	E-2
Valve - Solenoid	397-9397	46	D-1
Valve - Work Port Relief (Auxiliary Function)	91-1573	47	C-2, C-1
<b>STEERING SYSTEM</b>			
Accumulator - Pilot	355-9981	48	E-4
Cylinder - Steering (EH) (LH AND RH)	298-5270	49	F-4
Pump - Steering	455-1846	50	D-6
Pump/Motor - Secondary Steering (Attachment)	378-8323	51	E-5
Sensor - Pressure (Attachment)	344-7391	52	E-5
Sensor - Pressure (Attachment)	419-6574	53	E-5
Solenoid - On/Off	416-8195	54	E-5
Valve - Check	66-4701	55	E-4
Valve - Check (Attachment)	66-4701	56	D-7
Valve - Check Manifold (Attachment)	396-9028	57	E-6
Valve - Solenoid	313-7668	58	E-5, E-6
Valve - Steering	399-1597	59	F-4
Valve - Steering Backpressure	66-4278	60	E-4
Valve - Steering Relief	345-9961	61	F-5
<b>FAN/BRAKE/PILOT SYSTEM</b>			
Accumulator - Brake	375-2801	63	E-8
Cooler - Hydraulic Oil	349-5934	64	E-8
Cooler - Hydraulic Oil (Attachment)	349-5935	65	E-8
Filter - Kidney Loop	436-3444	66	C-8
Motor - Fan	246-6152	67	E-6
Pump - Fan			
Standard	419-6920	68	C-8
With LS Bypass	298-5270	69	E-7, F-5
Sensor - Pressure	344-7391	70	E-8, B-8
Sensor - Pressure	298-5270	71	E-7, E-7
Valve - Fan Drive And EH Brake Charge Valve EH Steering	373-1960	72	E-4
Valve - Fan Drive And EH Brake Charging Valve HMI Steering	370-8735	73	B-8
Valve - Park Brake	448-4308	74	E-8
Valve - Sample	95-3446	75	F-8
Valve - Thermal Bypass	188-8728	76	E-8
<b>QUICK COUPLER SYSTEM</b>			
Cylinders - Quick Coupler (Attachment)	311-1463	77	C-3
Valve - Check	123-4750	78	C-5
Valve - Manual (Attachment)	112-9177	79	B-4
Valve - Quick Coupler (Attachment)	416-6796	80	C-4
<b>MISCELLANEOUS</b>			
Pump - Transmission	371-4745	81	D-8
Valve - Aux Oil Cooler Divider	537-6169	82	F-4
Valve - Difflock - Front (Integrated LS Boost AND QC Drain)	385-2761	83	D-4
Valve - Difflock - Rear (Attachment)	448-4308	84	E-7
<b>BRAKE SYSTEM</b>			
Brake - Control	351-9419	85	F-6
Brake - Parking Brake	436-2961	86	F-6
Sensor - Temp (FRONT AND REAR)	264-4297	87	F-4, F-4
Sensor - Pos	269-1892	88	F-7
Switch As - Limit	105-6117	89	F-6
Valve - Brake Control	210-5587	90	F-6
<b>STEERING SYSTEM (HMI)</b>			
Cylinder - Steering (LH AND RH)	399-6706	91	A-4
Hmi Neutrons	298-5602	92	B-4
Pump - HMI Steering	349-6993	93	B-4
Valve - Cross Over Relief	129-2222	94	B-4
Valve - HMI Steering	441-6465	95	B-4
Valve - Steering Backup Relief	376-0631	96	A-5
<b>ADDITIONAL</b>			
Sensor - Valve Position	341-0824	97	E-8
Sensor - Cylinder Position	388-4776	98	F-5



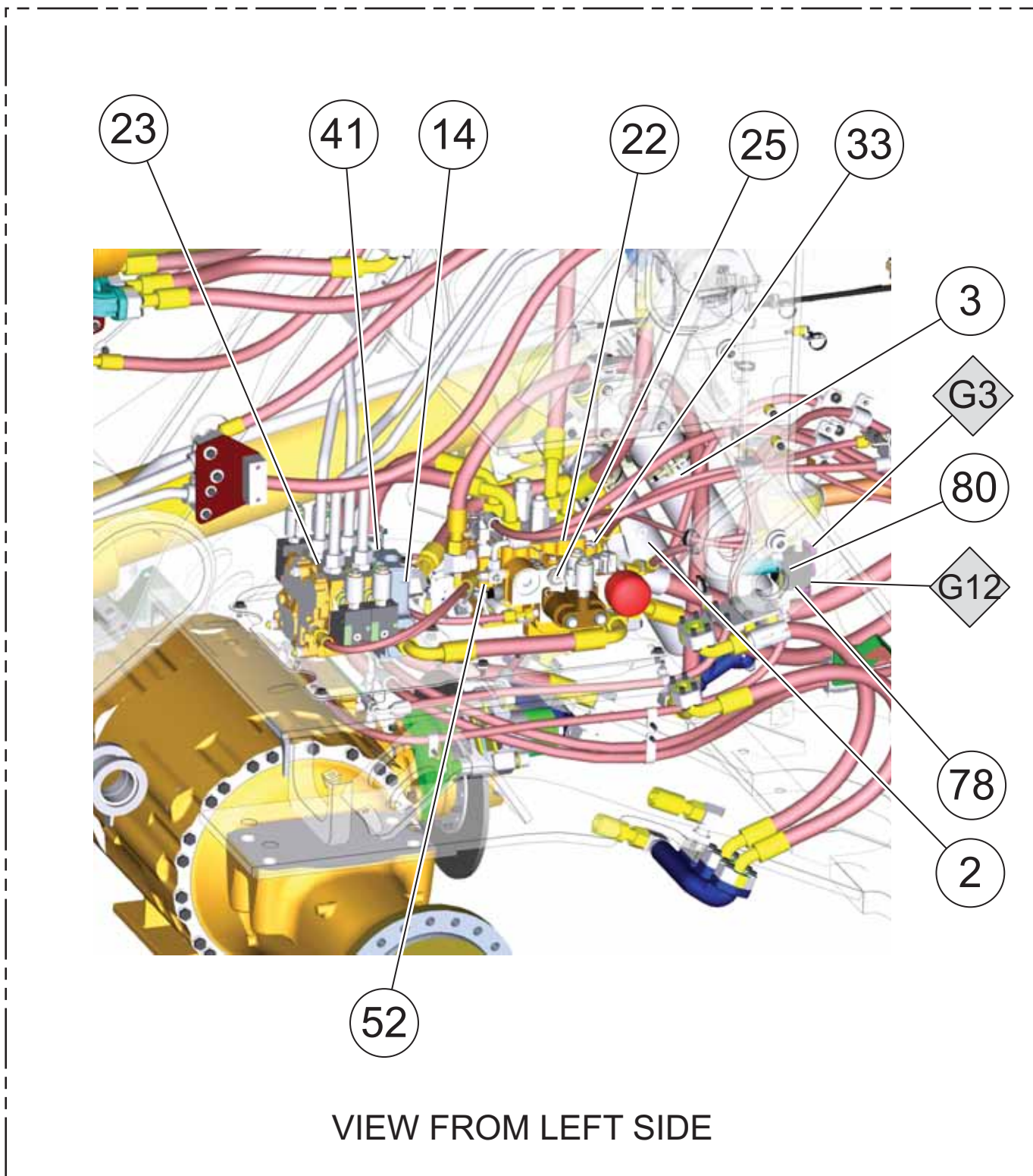
**QUICK COUPLER**



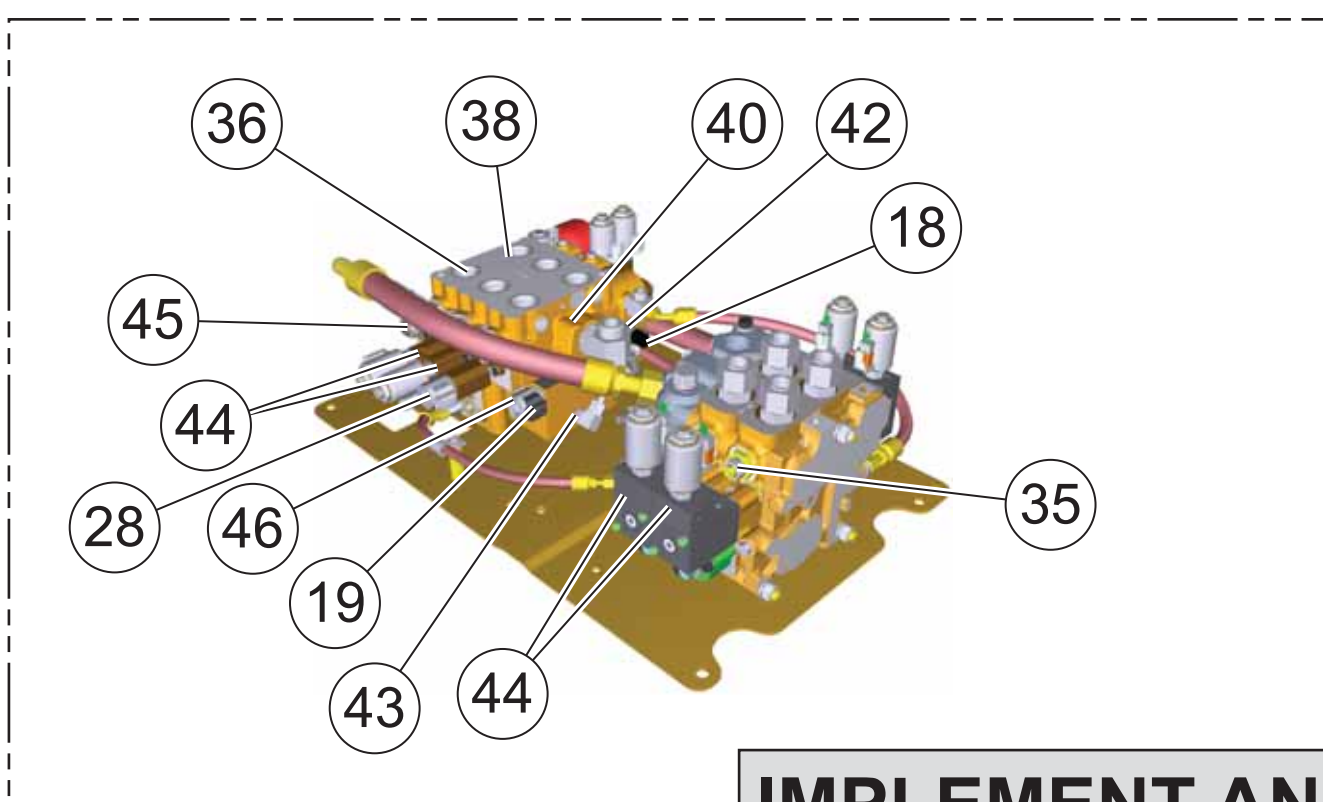
**HMI STEERING**



**RIGHT SIDE VIEWS**



**VIEW FROM LEFT SIDE  
IMPLEMENT AND AUX VALVES  
VIEW 1**

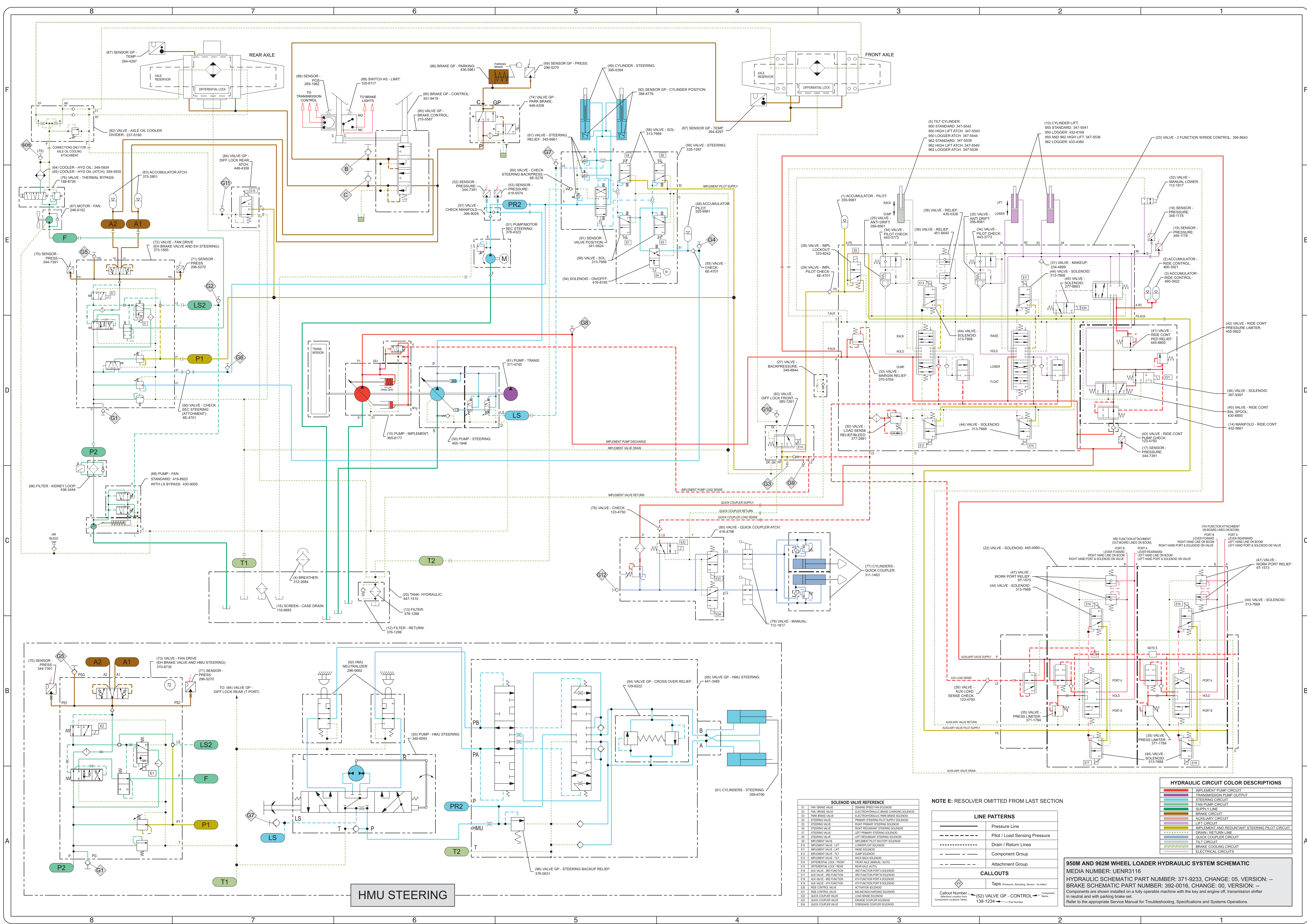


**IMPLEMENT AND AUX VALVES VIEW 2**

Tap Locations Pressure, Sampling, and Sensor		
Tap Number	Description	Schematic Location
G1	FAN PUMP DISCHARGE GAUGE PORT	D-8
G2	FAN PUMP LOAD SENSE GAUGE PORT	D-4
G3	IMPLEMENT/REDUNDANT STEERING PILOT SUPPLY GAUGE PORT	D-4
G4	PRIMARY STEERING PILOT SUPPLY GAUGE PORT	E-4
G5	BRAKE ACCUMULATOR GAUGE PORT	E-8
G6	STEERING PUMP DISCHARGE GAUGE PORT	D-7
G7	STEERING PUMP LOAD SENSE GAUGE PORT	D-5
G8	IMPLEMENT PUMP DISCHARGE GAUGE PORT	D-4
G9	HMI PUMP LOAD SENSE GAUGE PORT	D-4
G10	DIFFERENTIAL LOCK PRESSURE - FRONT	D-4
G11	DIFFERENTIAL LOCK PRESSURE - REAR	E-2
G12	QUICK COUPLER SUPPLY GAUGE PORT	B-5
B	FRONT BRAKE PRESSURE	F-6
C	REAR BRAKE PRESSURE	E-6
SOS	OIL SAMPLE PORT	F-8

FLUID POWER SYMBOLS			
BASIC COMPONENT SYMBOLS			
PUMP OR MOTOR	FLUID CONDITIONER	SPRING	RESTRICTION
RESTRICTION	LINE RESTRICTION (FREE)	LINE RESTRICTION (COMPENSATED)	PUMP (INTEGRAL & PRESSURE COMPENSATED)
VARIABLE	SPRING (ADJUSTABLE)	LINE RESTRICTION (VARIABLE)	PRESSURE COMPENSATION
HYDRAULIC ENERGY TRIANGLES	PRELIMINARY SYMBOL	LINE RESTRICTION (INTEGRAL & PRESSURE COMPENSATED)	ATTACHMENT
VALVE ENVELOPES		VALVE PORTS	
ONE POSITION	TWO POSITION	THREE POSITION	TWO-WAY
THREE-WAY	FOUR-WAY	CHECK VALVES	SHUTTLE
CONTROL VALVES	SHIFTED POSITION	INFINITE POSITION	BASIC SYMBOL
NORMAL POSITION	SPRING LOADED	SHUTTLE	PILOT CONTROLLED
FLUID STORAGE RESERVOIRS			
VENTED	PRESSURIZED	RETURN ABOVE FLUID LEVEL	RETURN BELOW FLUID LEVEL
MEASUREMENT		ROTATING SHAFTS	
PRESSURE	TEMPERATURE	FLOW	UNIDIRECTIONAL
			BIDIRECTIONAL
COMBINATION CONTROLS			
SOLENOID	SOLENOID OR MANUAL	SOLENOID & PILOT	SERVO
MANUAL	GENERAL MANUAL	PUSH BUTTON	PEDAL
SPRING			
MANUAL CONTROL SYMBOLS			
PUSH - PULL LEVER	MANUAL SHUTOFF	GENERAL MANUAL	PUSH BUTTON
PEDAL	SPRING		
RELEASED PRESSURE		PILOT CONTROL SYMBOLS	
EXTERNAL RETURN	INTERNAL RETURN	SIMPLIFIED	COMPLETE
INTERNAL RETURN			INTERNAL SUPPLY PRESSURE
ACCUMULATORS		CROSSING & JOINING LINES	
SPRING LOADED	GAS CHARGED	LINES CROSSING	LINES JOINING
HYDRAULIC PUMPS		HYDRAULIC MOTORS	
FIXED DISPLACEMENT	VARIABLE DISPLACEMENT NON-COMPENSATED	FIXED DISPLACEMENT	VARIABLE DISPLACEMENT NON-COMPENSATED
UNIDIRECTIONAL	BIDIRECTIONAL	UNIDIRECTIONAL	BIDIRECTIONAL
INTERNAL PASSAGEWAYS			
INFINITE POSITIONING	3 POSITION	2 POSITION	
FLOW IN EITHER DIRECTION	PARALLEL FLOW	CROSS FLOW	FLOW IN EITHER DIRECTION

ELECTRICAL SYMBOLS TABLE			
HYDRAULIC SYMBOLS (ELECTRICAL)			
TRANSUCER (FLUID)	TRANSUCER (GAS / AIR)	GENERATOR	ELECTRIC MOTOR
PRESSURE SWITCH	PRESSURE SWITCH (ADJUSTABLE)	TEMPERATURE SWITCH	ELECTRICAL WIRE
ELECTRICAL SYMBOLS (ELECTRICAL)			
PRESSURE SWITCH	TEMPERATURE SWITCH	LEVEL SWITCH	FLOW SWITCH
WIRE NUMBER IDENTIFICATION CODES			
ELECTRICAL SCHEMATIC EXAMPLE		HYDRAULIC SCHEMATIC EXAMPLE	
CURRENT STANDARD		CURRENT STANDARD	
HARNES IDENTIFICATION CODE THIS EXAMPLE INDICATES WIRE IS IN HARNES 7407		CIRCUIT NUMBER IDENTIFICATION	
CIRCUIT NUMBER IDENTIFICATION	WIRE COLOR	WIRE GAUGE	WIRE COLOR
325-AG135-PK-14	WIRE	325-PK	WIRE COLOR
PREVIOUS STANDARD			
WIRE	WIRE COLOR	WIRE GAUGE	
CIRCUIT NUMBER IDENTIFICATION	325-PK-14	WIRE GAUGE	
(EXAMPLE VALVE)			



**SOLENOID VALVE REFERENCE**

E1	FAN BRAKE VALVE	TRANS OIL PRESS SOLENOID
E2	FAN BRAKE VALVE	ELECTROHYDRAULIC BRAKE CHARGING SOLENOID
E3	FAN BRAKE VALVE	ELECTROHYDRAULIC HIGH BRAKE SOLENOID
E4	STEERING VALVE	PRIMARY STEERING RELIEF CHECK SOLENOID
E5	STEERING VALVE	RIGHT REDUNDANT STEERING SOLENOID
E6	STEERING VALVE	RIGHT REDUNDANT STEERING SOLENOID
E7	STEERING VALVE	LEFT REDUNDANT STEERING SOLENOID
E8	STEERING VALVE	LEFT REDUNDANT STEERING SOLENOID
E9	IMPLEMENT VALVE - LIFT	IMPLEMENT PILOT SHUTOFF SOLENOID
E10	IMPLEMENT VALVE - LIFT	LOWER SOLENOID
E11	IMPLEMENT VALVE - LIFT	RAISE SOLENOID
E12	IMPLEMENT VALVE - TILT	DUMP SOLENOID
E13	IMPLEMENT VALVE - TILT	RACK BACK SOLENOID
E14	DIFFERENTIAL LOCK - FRONT	FRONT ACE (MANUAL) SOLENOID
E15	DIFFERENTIAL LOCK - REAR	REAR ACE (AUTO) SOLENOID
E16	AUX VALVE - 3RD FUNCTION	3RD FUNCTION PORT SOLENOID
E17	AUX VALVE - 3RD FUNCTION	3RD FUNCTION PORT SOLENOID
E18	AUX VALVE - 4TH FUNCTION	4TH FUNCTION PORT SOLENOID
E19	AUX VALVE - 4TH FUNCTION	4TH FUNCTION PORT SOLENOID
E20	RISE CONTROL VALVE	ACTUATION SOLENOID
E21	RISE CONTROL VALVE	BACKLASH CHARGING SOLENOID
E22	QUICK COUPLER VALVE	LOAD SENSE SOLENOID
E23	QUICK COUPLER VALVE	DISCHARGE COUPLER SOLENOID
E24	QUICK COUPLER VALVE	DISCHARGE COUPLER SOLENOID

NOTE E: RESOLVER OMITTED FROM LAST SECTION

**LINE PATTERNS**

—	Pressure Line
- - -	Pilot / Load Sensing Pressure
---	Drain / Return Lines
---	Component Group
---	Attachment Group

**CALLOUTS**

□	Taps (Pressure, Sensing, Sensor, In, Vent)
□	(52) VALVE GP - CONTROL
□	138-1234 - Part Number

**HYDRAULIC CIRCUIT COLOR DESCRIPTIONS**

Red	IMPLEMENT PUMP CIRCUIT
Blue	TRANSMISSION PUMP OUTPUT
Green	STEERING CIRCUIT
Orange	FAN PUMP CIRCUIT
Yellow	SUPPLY LINE
Purple	BRAKE CIRCUIT
Light Blue	AUXILIARY CIRCUIT
Light Green	LEFT CIRCUIT
Light Orange	IMPLEMENT AND REDUNDANT STEERING PILOT CIRCUIT
Light Purple	QUICK COUPLER CIRCUIT
Light Yellow	TILT CIRCUIT
Light Cyan	BRAKE COUPLER CIRCUIT
Light Magenta	ELECTRICAL CIRCUITS

**950M AND 962M WHEEL LOADER HYDRAULIC SYSTEM SCHEMATIC**  
 MEDIA NUMBER: UENR3116  
 HYDRAULIC SCHEMATIC PART NUMBER: 392-0016, CHANGE: 00, VERSION: -  
 BRAKE SCHEMATIC PART NUMBER: 392-0016, CHANGE: 00, VERSION: -  
 Components are shown installed on a fully operable machine with the key and engine off. Transmission after in neutral and with parking brake set.  
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.