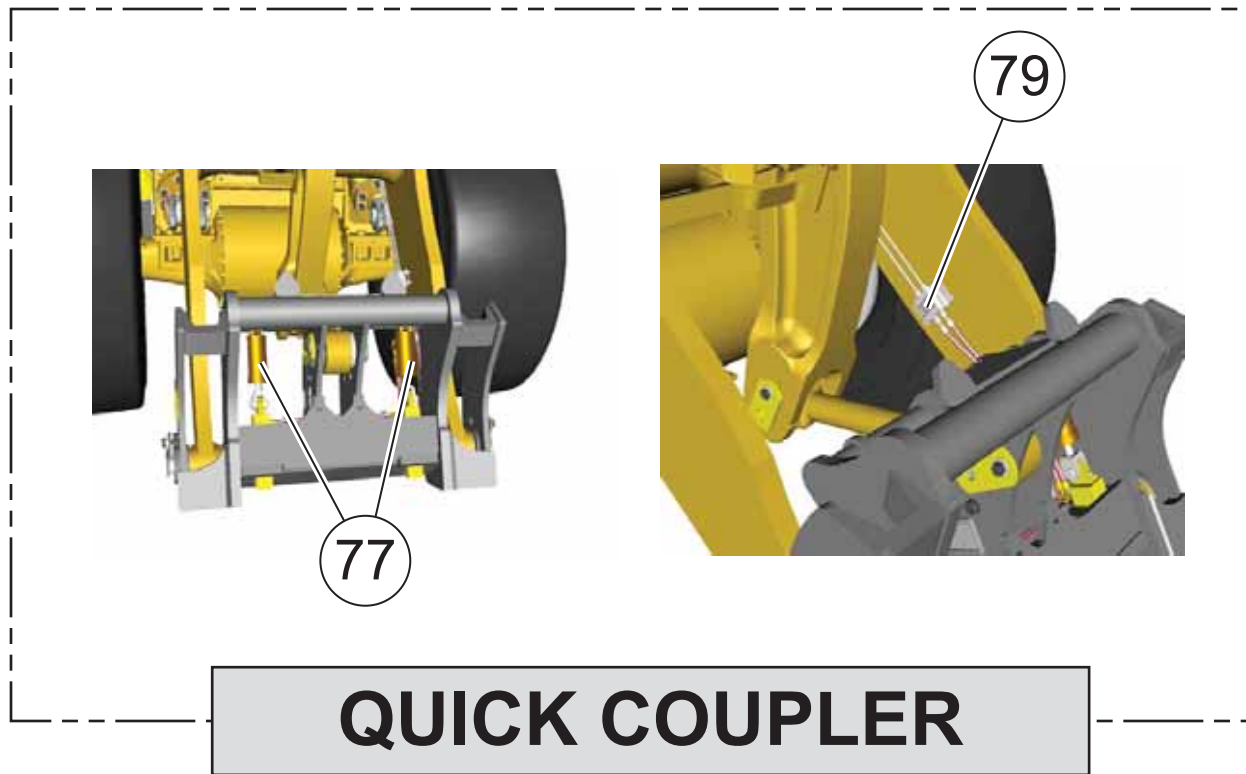
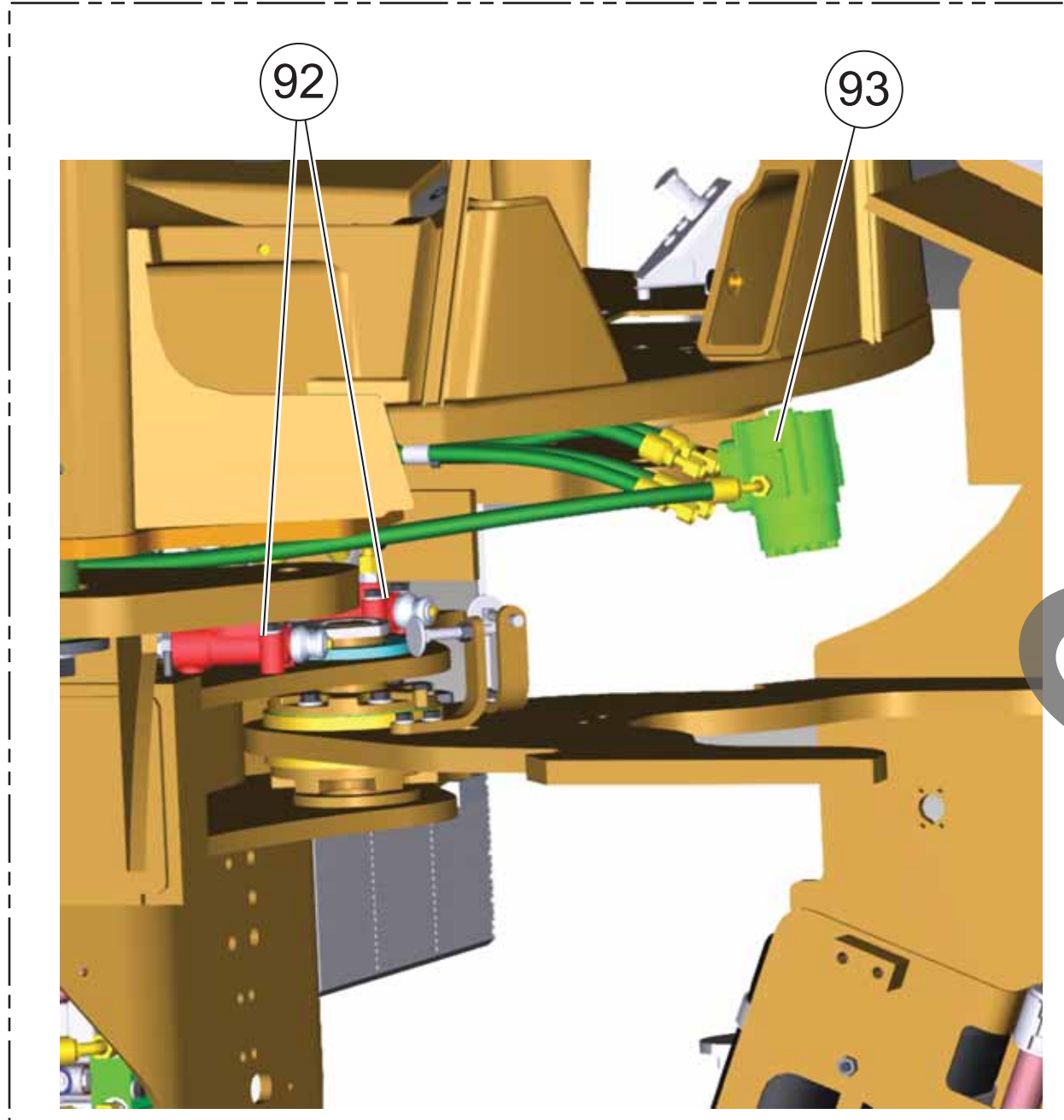


MACHINE VIEWS

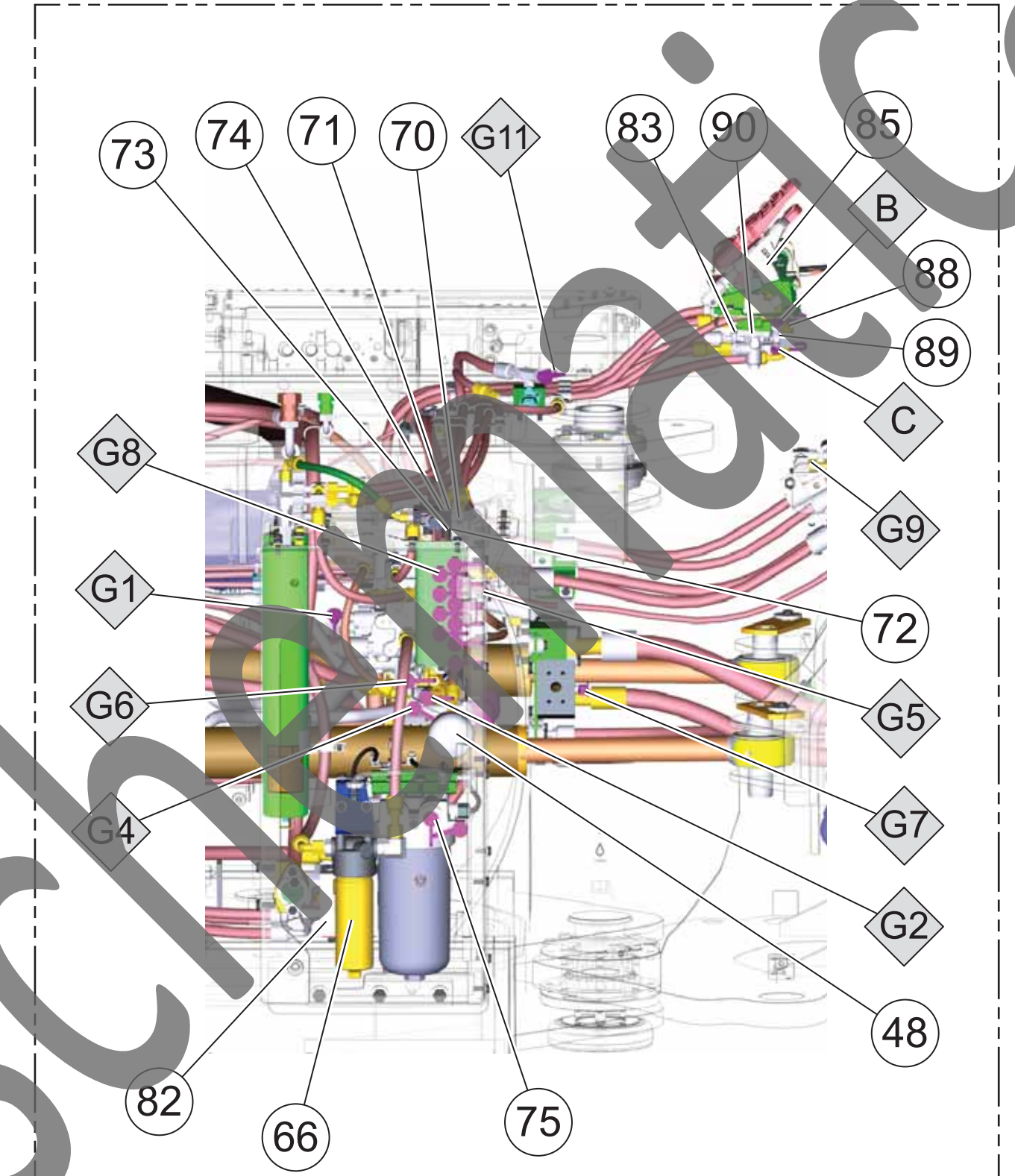
Component Locations			
Description	Part Number	Machine Location	Schematic Location
Accumulator - Pilot	355-9981	1	E-3
Accumulator - Ride Control	460-3921	2	E-1
Accumulator - Ride Control	460-3922	3	E-1
Accumulator - Ride Control	312-2884	4	C-7
Cylinder Tilt			
950 (Standard)	347-5542		F-3
950 (High Lift 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
Cylinder Lift			
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-3
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	234-4889	31	E-2
Valve - Manual Lower	112-9117	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	430-8903	39	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)	31-1573	47	C-2, C-1
STEERING SYSTEM			
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	D-7
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
FAN/BRAKE/PILOT SYSTEM			
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	419-6920	68	C-8
With LS Bypass	296-5270	69	E-7, F-5
Sensor - Pressure	344-7391	70	E-8, B-8
Sensor - Pressure	296-5270	71	E-7, E-7
Valve - Fan Drive And EH Brake Charge Valve EH Steering	373-1950	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
QUICK COUPLER SYSTEM			
Cylinders - Quick Coupler (Attachment)	311-1463	77	C-3
Valve - Check	123-4750	78	C-5
Valve - Manual (Attachment)	112-9117	79	B-4
Valve - Quick Coupler (Attachment)	416-8796	80	C-4
MISCELLANEOUS			
Pump - Transmission	371-4745	81	D-5
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
BRAKE SYSTEM			
Brake - Control	351-9419	85	F-6
Brake - Parking Brake	436-5961	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
STEERING SYSTEM (HMI)			
Cylinder - Steering (LH AND RH)	399-6706	91	A-4
Hmi Neutrons	296-5602	92	B-4
Pump - HMI Steering	349-6993	93	B-6
Valve - Cross Over Relief	129-2222	94	B-4
Valve - HMI Steering	441-6465	95	B-4
Valve - Steering Backup Relief	376-0931	96	A-5
ADDITIONAL			
Sensor - Valve Position	341-0824	97	E-5
Sensor - Cylinder Position	388-4776	98	F-5



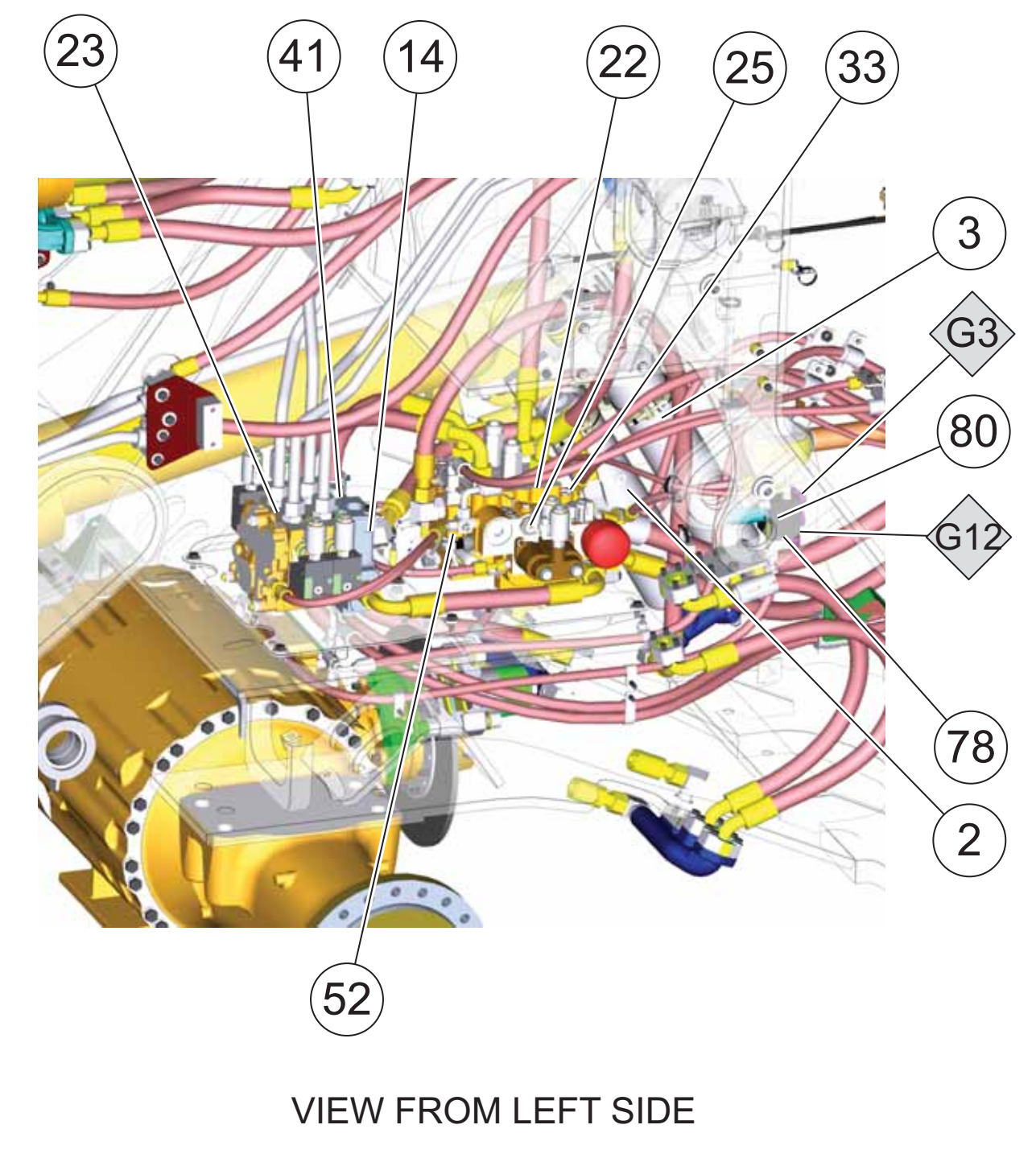
QUICK COUPLER



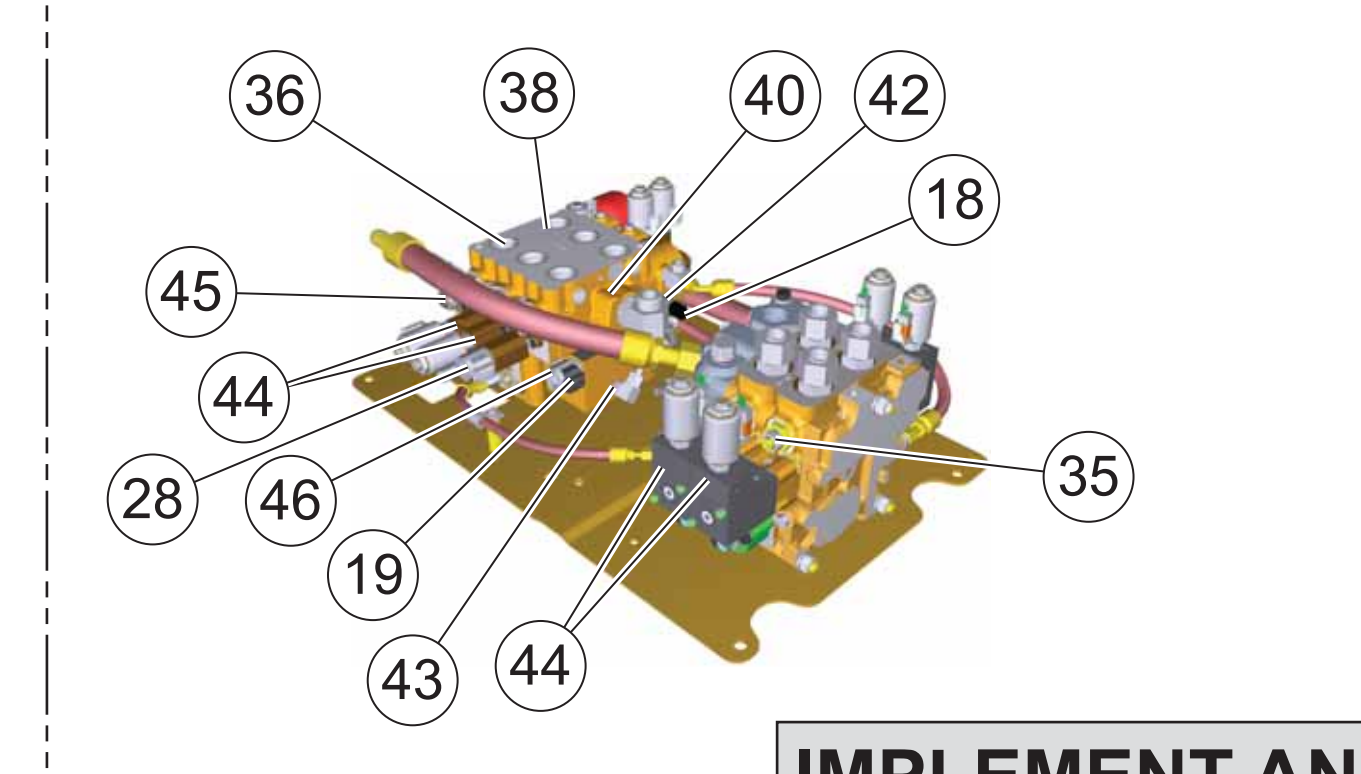
HMU STEERING



RIGHT SIDE VIEWS



IMPLEMENT AND AUX VALVES VIEW 1



IMPLEMENT AND AUX VALVES VIEW 2

Schematic

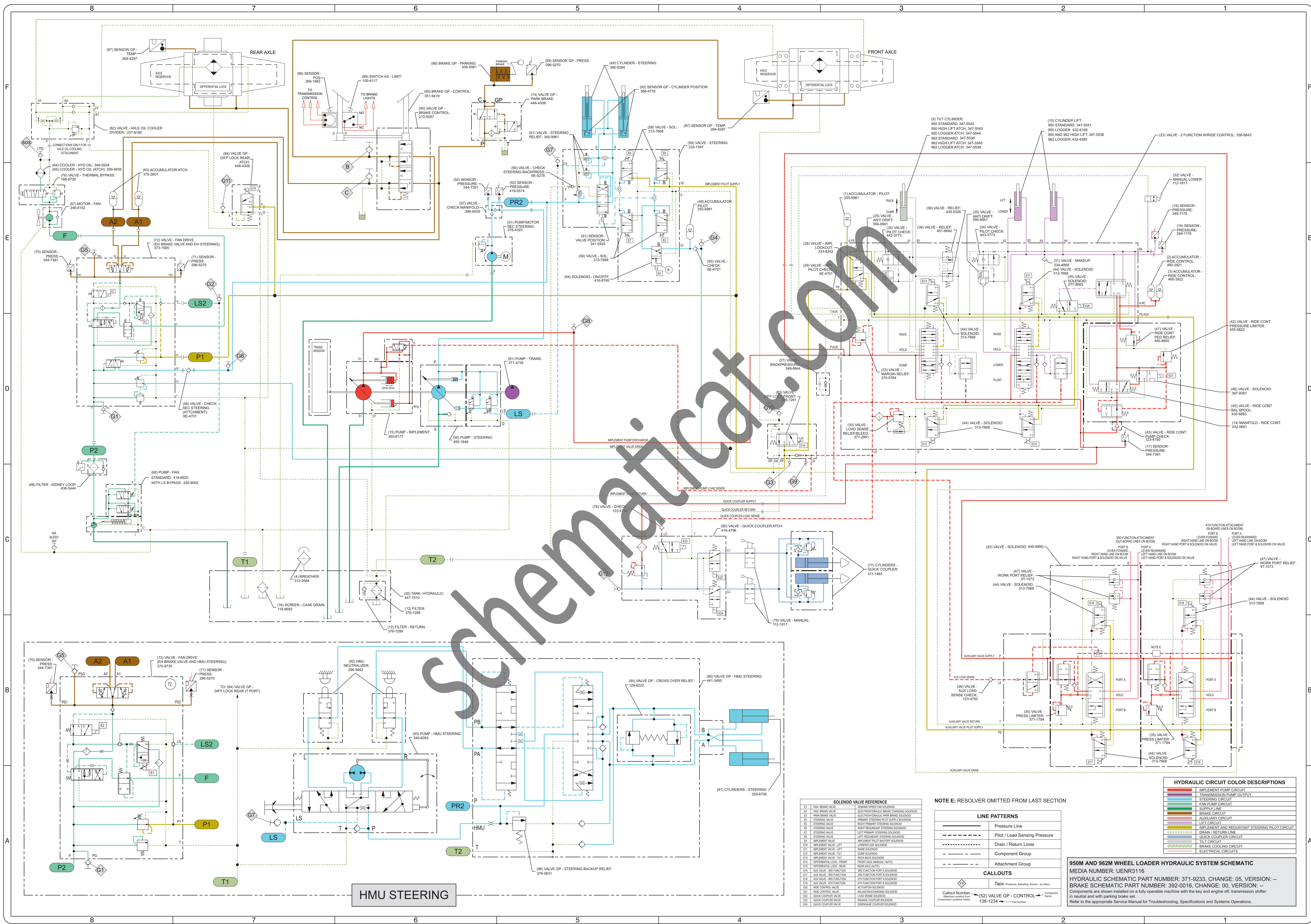
950M and 962M Wheel Loader Hydraulic System

950M:
EMB1-UP
FTR1-UP

962M:
EJB1-UP
F2T1-UP

FLUID POWER SYMBOLS				
BASIC COMPONENT SYMBOLS				
PUMP OR MOTOR	FLUID CONDITIONER	SPRING	RESTRICTION	
RESTRICTION	LINE RESTRICTION (FREE)	LINE RESTRICTION (COMPENSATED)	PUMP (2-SECTION)	
LINE RESTRICTION (COMPENSATED)	HYDRAULIC ENERGY TRIANGLE	PRELIMINARY SYMBOL	LINE RESTRICTION (HYDRAULIC COMPENSATED)	
ATTACHMENT	VALVE ENVELOPES			
VALVE ENVELOPES				
ONE POSITION	TWO POSITION	THREE POSITION	VALVE PORTS	
TWO WAY	THREE WAY	FOUR WAY	CHECK VALVES	
NORMAL POSITION	SHIFTED POSITION	INFINITE POSITION	BASIC SYMBOL	
SPRING LOADED	SHUTTLE	PILOT CONTROLLED	FLUID STORAGE RESERVOIRS	
FLUID STORAGE RESERVOIRS				
VENTED	PRESSURIZED	RETURN ABOVE FLUID LEVEL	RETURN BELOW FLUID LEVEL	
MEASUREMENT				
PRESSURE	TEMPERATURE	FLOW	ROTATING SHAFTS	
UNIDIRECTIONAL	BI-DIRECTIONAL	UNIDIRECTIONAL	BI-DIRECTIONAL	
COMBINATION CONTROLS				
SOLENOID	SOLENOID OR MANUAL	SOLENOID & PILOT	SERVO	
THERMAL	DEFENT	MANUAL CONTROL SYMBOLS		
MANUAL CONTROL SYMBOLS				
PUSH - PULL LEVER	MANUAL SHUTOFF	GENERAL MANUAL	PUSH BUTTON	
PEDAL	SPRING	RELEASED PRESSURE		
RELEASED PRESSURE				
EXTERNAL RETURN	INTERNAL RETURN	CROSSING & JOINING LINES	REMOTE SUPPLY PRESSURE	
SIMPLIFIED	COMPLETE	INTERNAL SUPPLY PRESSURE	ACCUMULATORS	
ACCUMULATORS				
SPRING LOADED	GAS CHARGED	LINES CROSSING	LINES JOINING	
HYDRAULIC & PNEUMATIC CYLINDERS				
HYDRAULIC & PNEUMATIC CYLINDERS				
FIXED DISPLACEMENT	VARIABLE DISPLACEMENT NON-COMPENSATED	VARIABLE DISPLACEMENT COMPENSATED	INFINITE POSITIONING	
UNIDIRECTIONAL	BI-DIRECTIONAL	BI-DIRECTIONAL	3 POSITION	
INTERNAL PASSAGEWAYS				
INTERNAL PASSAGEWAYS				
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	
HARNESS IDENTIFICATION CODE THIS EXAMPLE INDICATES WIRE IS IN HARNESS 'A'		CIRCUIT NUMBER IDENTIFICATION	
CIRCUIT NUMBER IDENTIFICATION	WIRE COLOR	WIRE GAUGE	WIRE COLOR
WIRE	325-AG135-PK-14	WIRE GAUGE	325-PK
PREVIOUS STANDARD		(EXAMPLE VALVE)	
CIRCUIT NUMBER IDENTIFICATION	WIRE COLOR	WIRE GAUGE	
WIRE	325-PK-14	WIRE GAUGE	



SOLENOID VALVE REFERENCE

E1	FAN BRAKE VALVE	TRANS OIL PRESS SOLENOID
E2	FAN BRAKE VALVE	ELECTROHYDRAULIC BRAKE CHARGING SOLENOID
E3	FAN BRAKE VALVE	ELECTROHYDRAULIC TRANS BRAKE SOLENOID
E4	STEERING VALVE	PRIMARY STEERING RELIEF CHECK SOLENOID
E5	STEERING VALVE	HIGH PRESSURE 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 AXLE DIFFERENTIAL LOCK
E15	DIFFERENTIAL LOCK - REAR	REAR AXLE AUTO
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	BACKING CHARGING SOLENOID
E22	QUICK COUPLER VALVE	LOAD SENSE SOLENOID
E23	QUICK COUPLER VALVE	DISCHARGE SOLENOID
E24	QUICK COUPLER VALVE	DISCHARGE 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 COOLING 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.