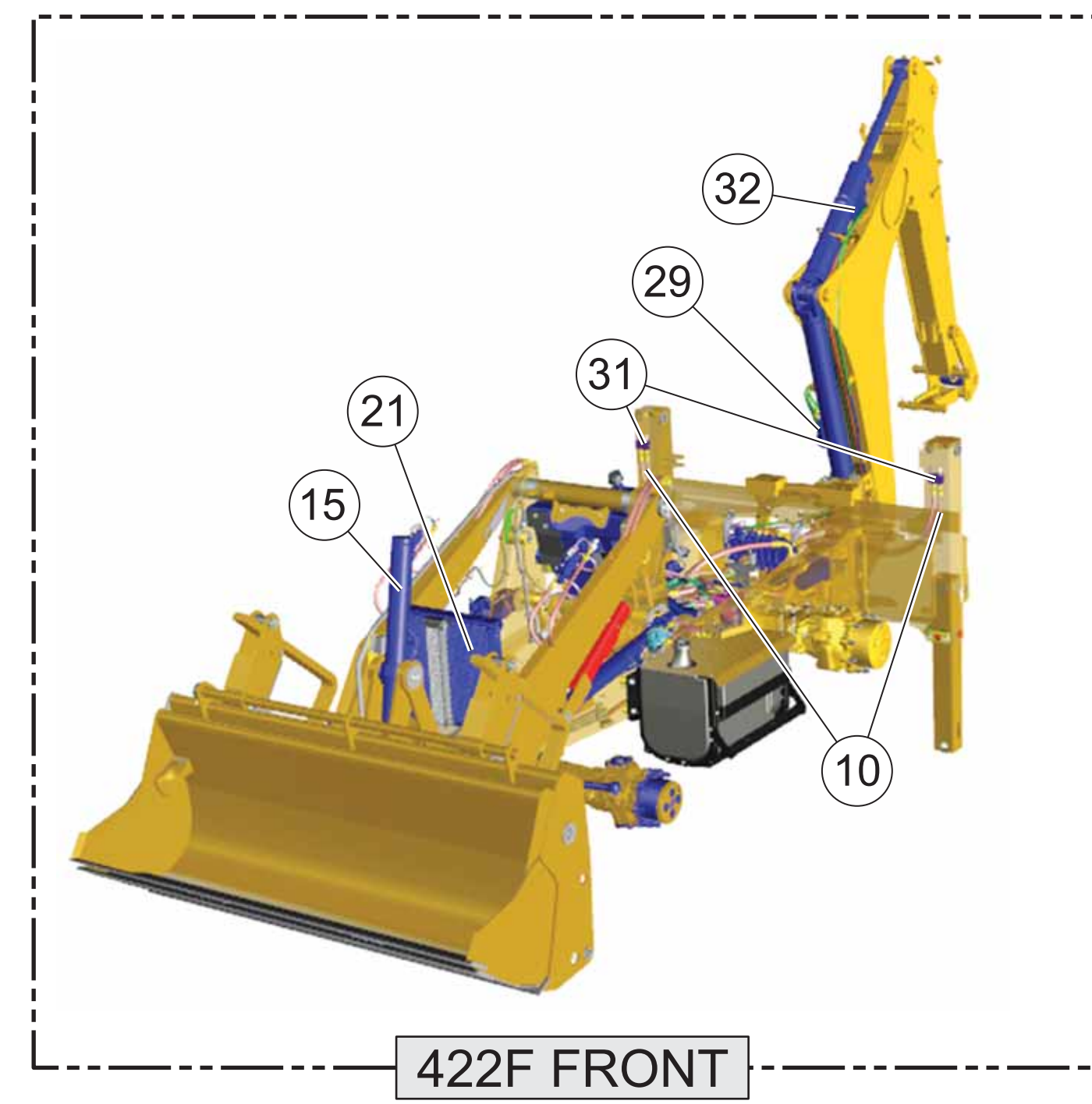
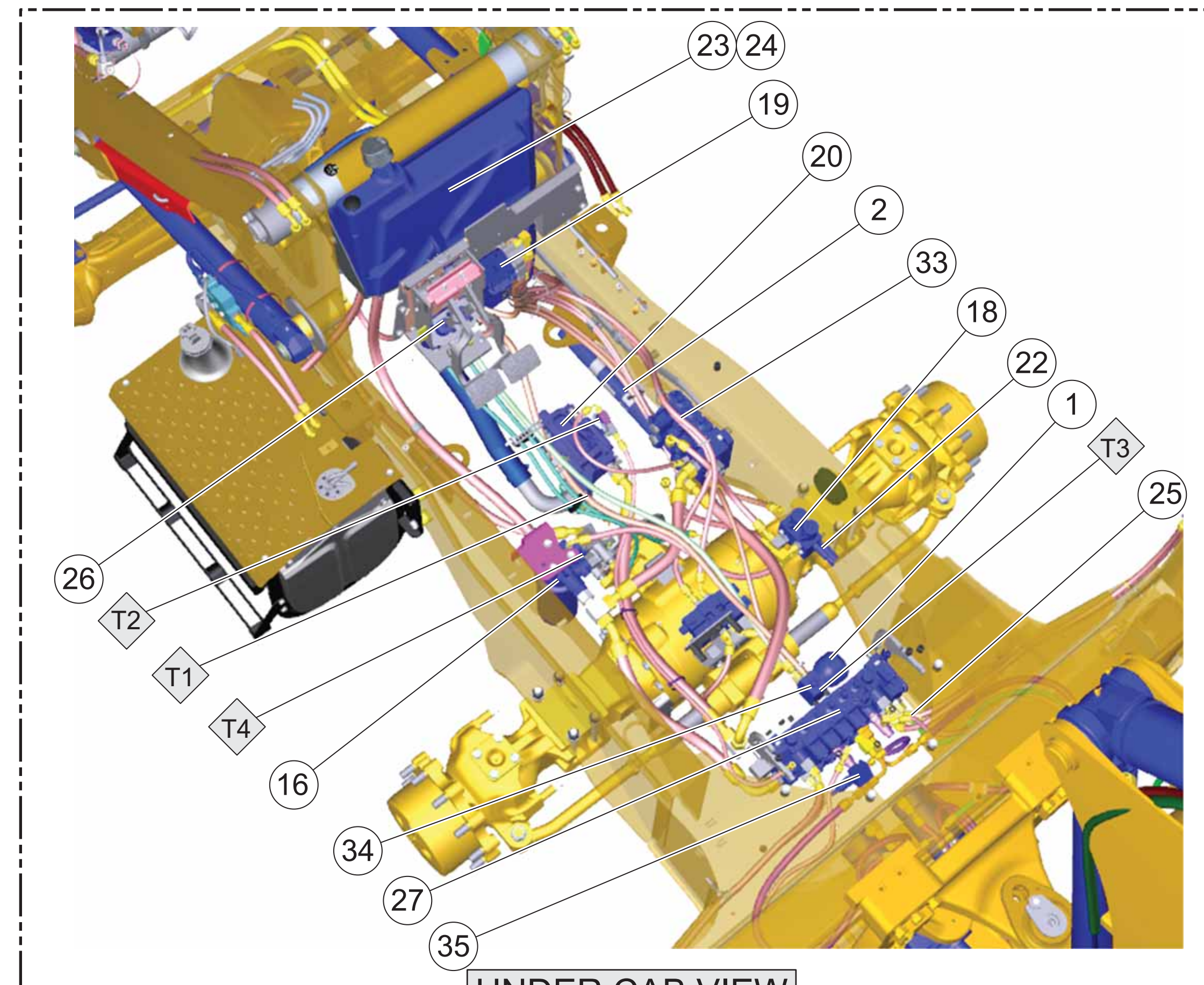


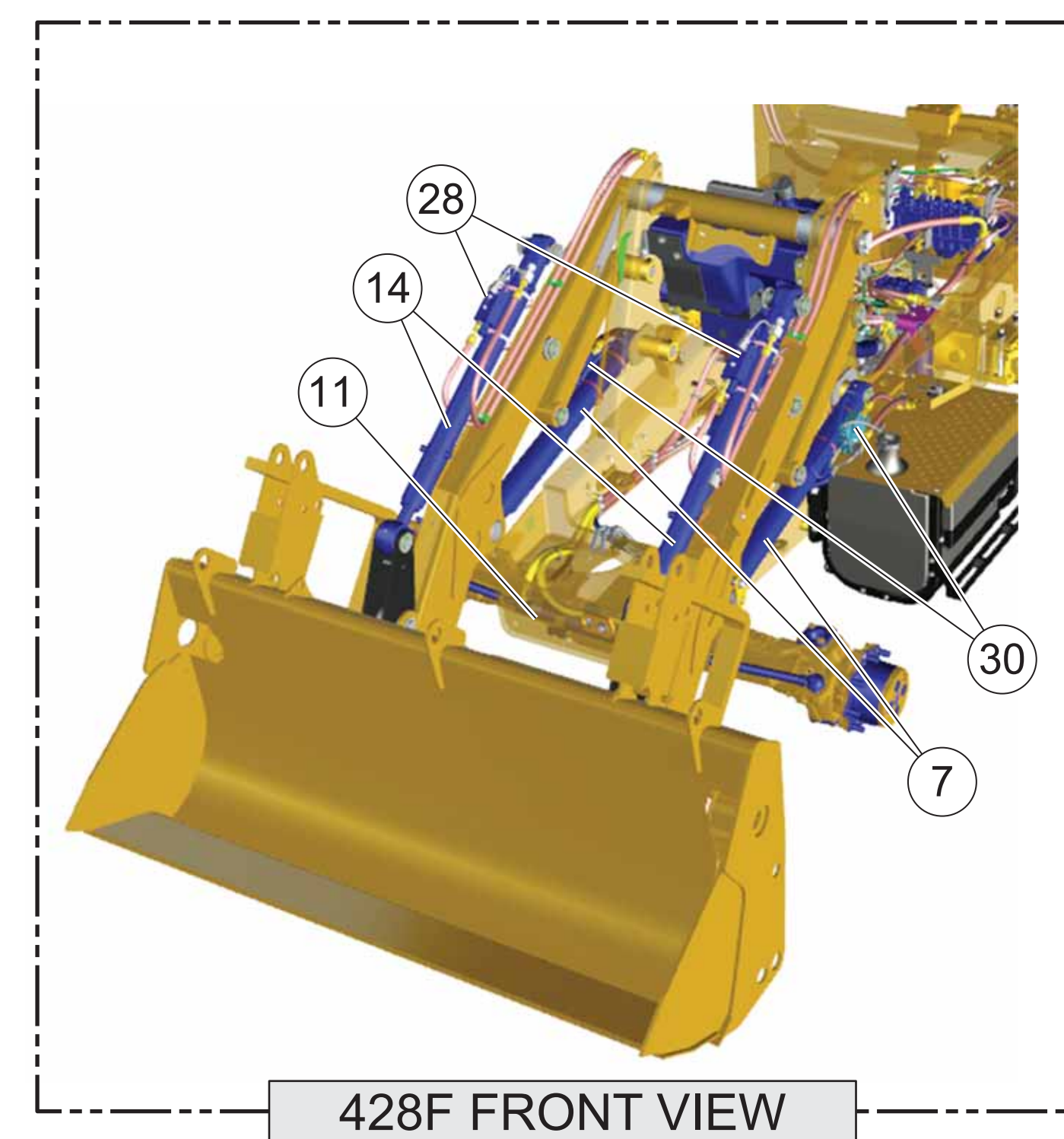
REAR MACHINE VIEW



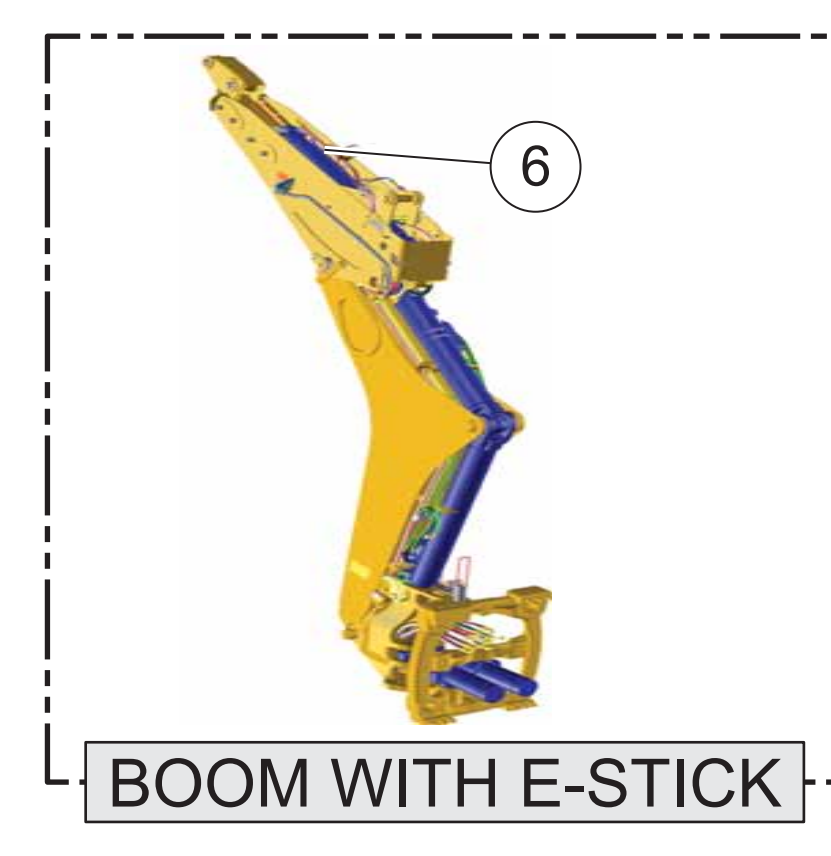
422F FRONT



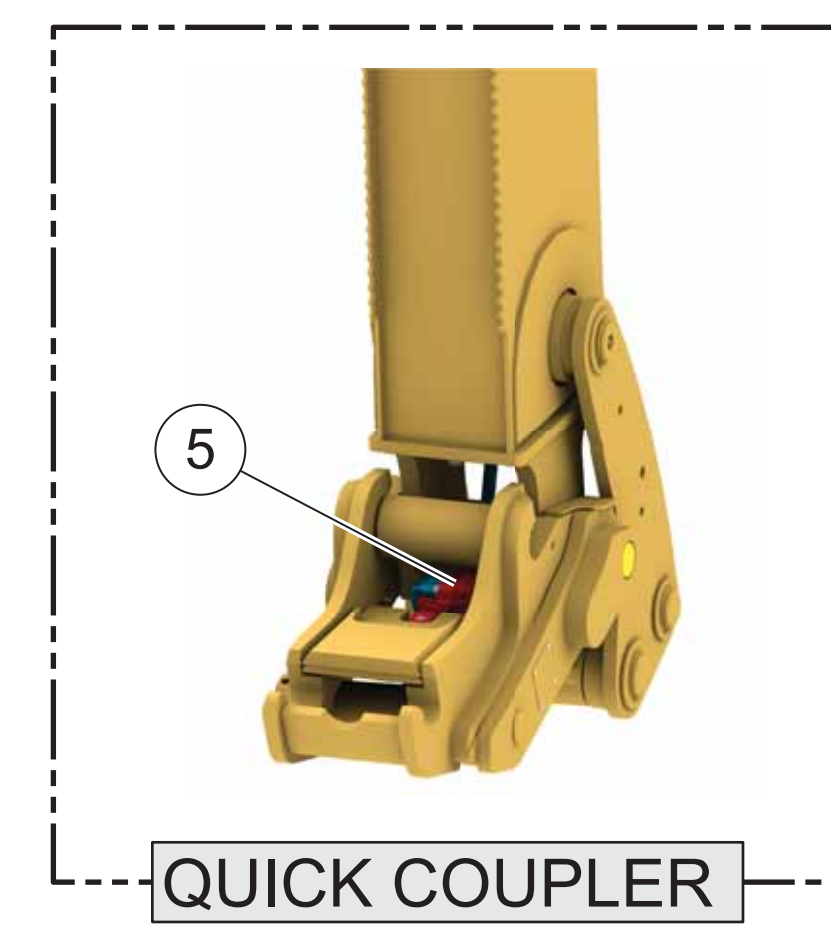
UNDER CAB VIEW



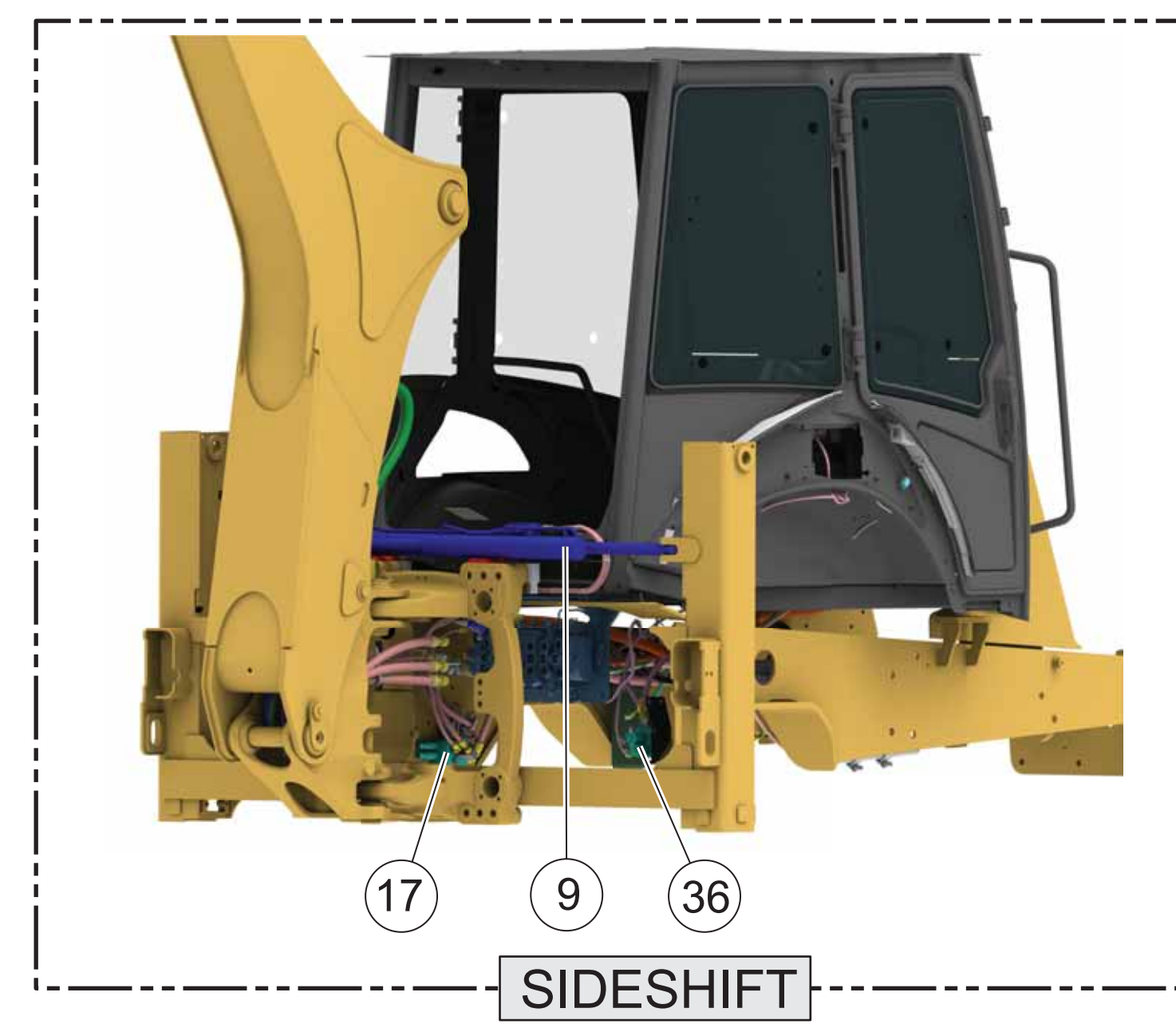
428F FRONT VIEW



BOOM WITH E-STICK



QUICK COUPLER



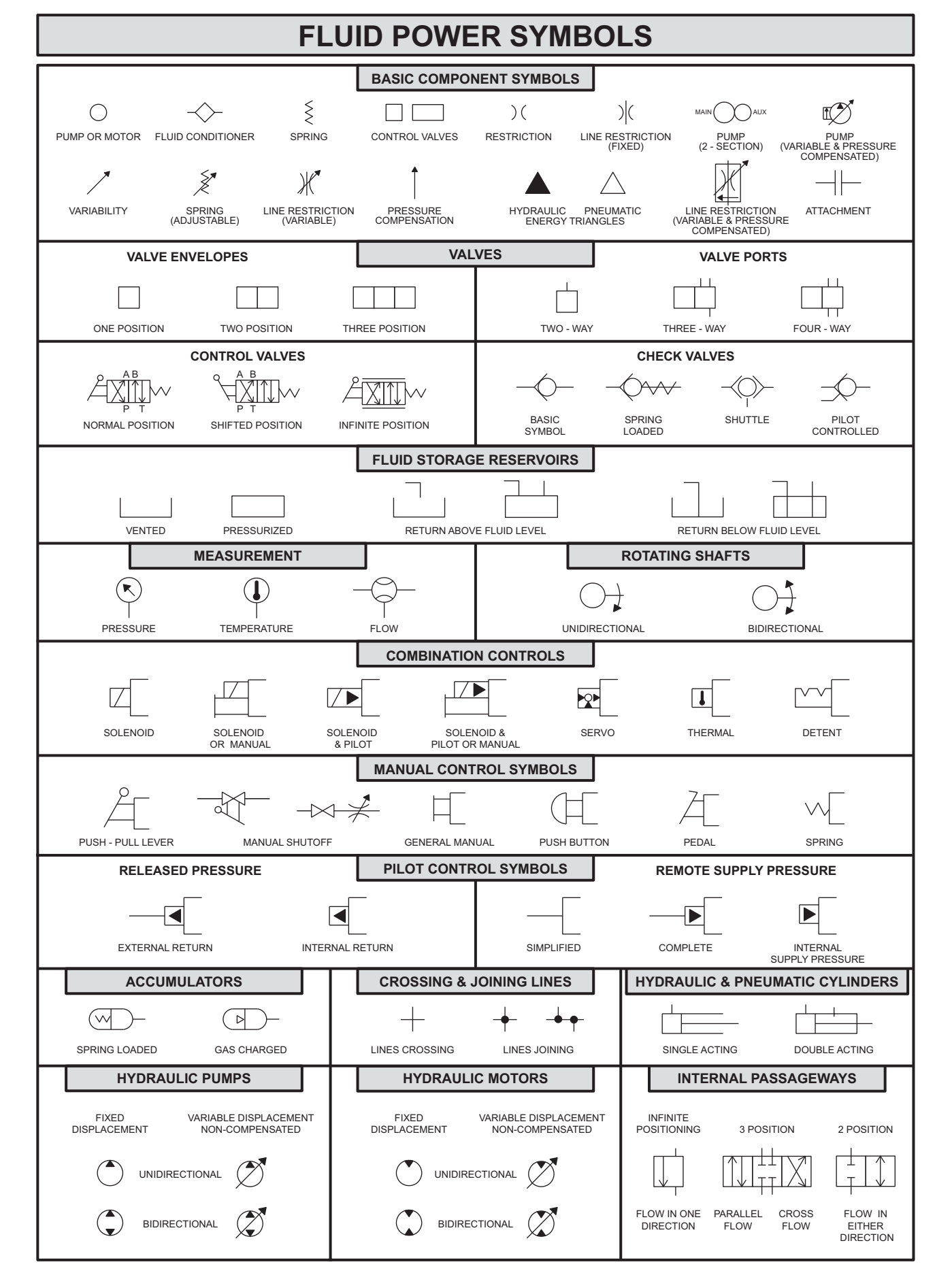
SIDESHIFT

Schematic

422F and 428F Backhoe Loader Hydraulic System

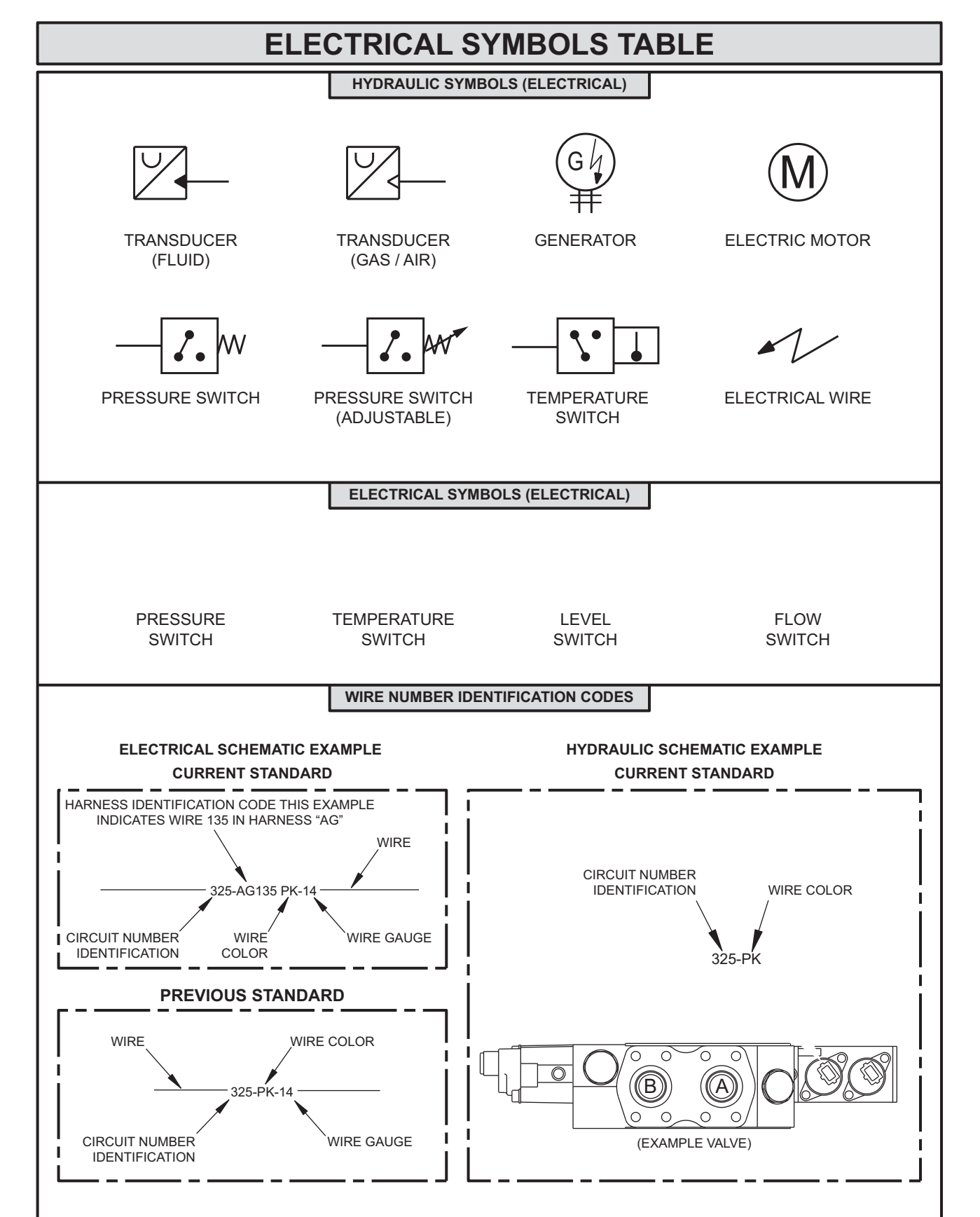
422F: LRH1-UP
428F: LBH1-UP RAK1-UP SJW1-UP

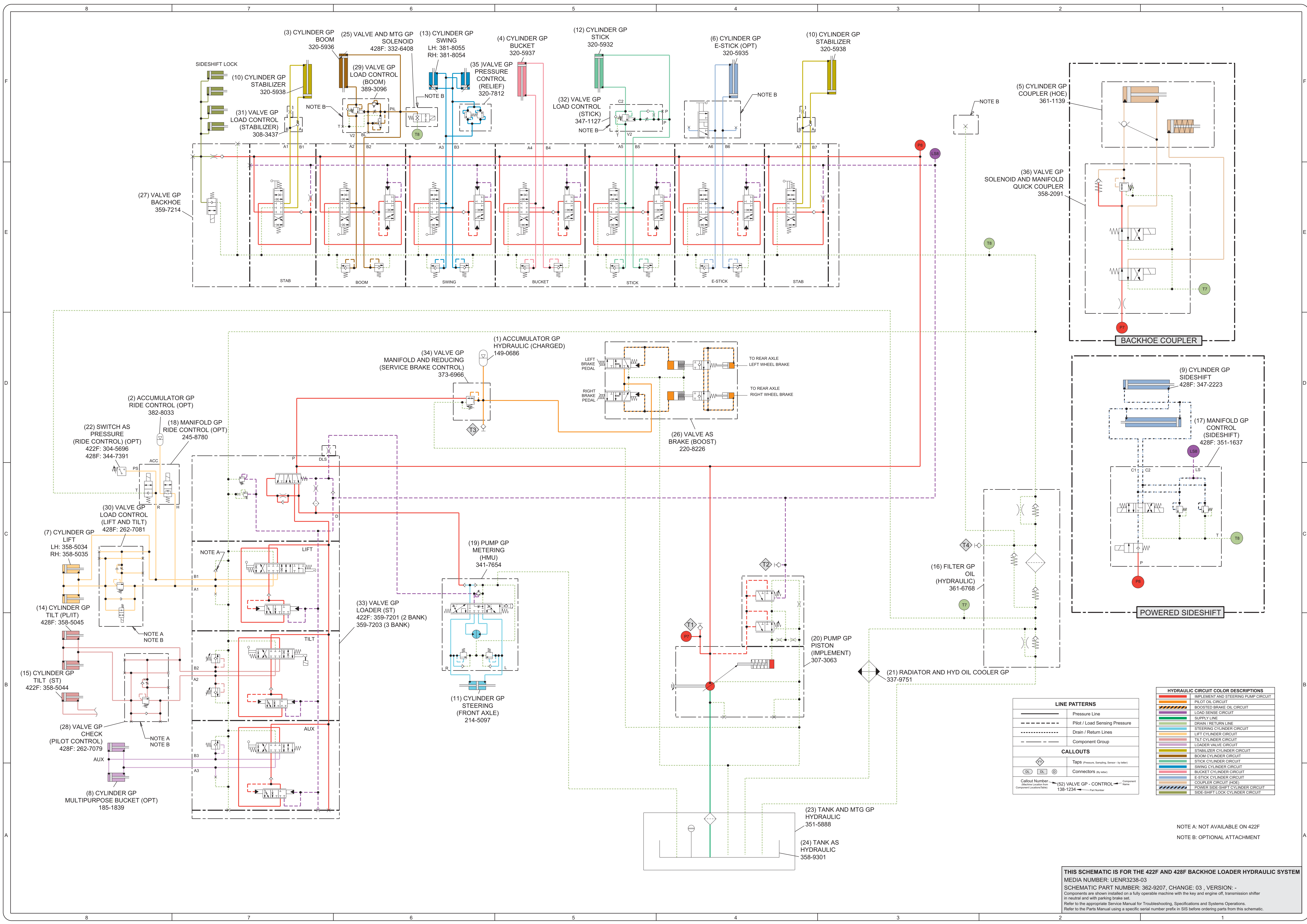
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Description	Part Number		Schematic Location	Machine Location
	422F	428F		
Accumulator Gp - Hydraulic (Charged)	149-0696	149-0696	D-6	1
Accumulator Gp - Ride Control (OPT)	382-8033	382-8033	D-8	2
Cylinder Gp - Boom	320-5936	320-5936	F-6	3
Cylinder Gp - Bucket	320-5937	320-5937	F-5	4
Cylinder Gp - Coupler (HOE)	361-1139	361-1139	F-2	5
Cylinder Gp - E-Stick (OPT)	320-5935	320-5935	F-4	6
Cylinder Gp - Lift	LH: 358-5034 RH: 358-5035	358-5034 358-5035	C-8	7
Cylinder Gp - Multipurpose Bucket (OPT)	185-1839	185-1839	A-8	8*
Cylinder Gp - Side Shift	-	347-2223	D-11	9
Cylinder Gp - Stabilizer	320-5938	320-5938	F-7, F-3	10
Cylinder Gp - Steering (Front Axle)	214-5097	214-5097	B-6	11
Cylinder Gp - Stick	320-5932	320-5932	F-8	12
Cylinder Gp - Swing	LH: 381-8055 RH: 381-8054	381-8055 381-8054	F-6	13
Cylinder Gp - Tr (PLUT)	-	358-5045	B-8	14
Cylinder Gp - Tr (ST)	-	358-5044	B-8	15
Filter Gp - Oil (Hydraulic)	361-6768	361-6768	C-2	16
Manifold Gp - Control (Side Shift)	-	351-1637	C-1	17
Manifold Gp - Ride Control (OPT)	245-8780	245-8780	C-9	18
Pump Gp - Metering (HAM)	341-7654	341-7654	C-6	19
Pump Gp - Piston (Implement)	307-3063	307-3063	B-4	20
Radiator and Hydraulic Oil Cooler Gp	337-9711	337-9711	B-3	21
Switch As - Pressure (Ride Control) (OPT)	304-5696	344-7391	D-8	22
Tank and Mtg. Gp - Hydraulic	351-5888	351-5888	A-4	23
Tank As - Hydraulic	358-8301	358-8301	A-4	24
Valve and Mtg. Gp - Solenoid	-	332-6408	F-6	25
Valve As - Brake (Boost)	220-8226	220-8226	D-4	26
Valve Gp - Backhoe	389-7214	359-7214	E-7	27
Valve Gp - Check (Pilot Control)	-	262-7079	B-8	28
Valve Gp - Load Control (Boom)	389-3096	389-3096	F-6	29
Valve Gp - Load Control (Lift and Tr)	-	262-1081	C-8	30
Valve Gp - Load Control (Stabilizer)	308-3437	308-3437	F-7	31
Valve Gp - Load Control (Stick)	347-1127	347-1127	F-5	32
Valve Gp - Loader (ST)	2 Bank: 359-7201 3 Bank: 359-7203	-	D-7	33
Valve Gp - Manifold and Reducing (Service Brake Control)	373-6966	373-6966	C-6	34
Valve Gp - Pressure Control (Relief)	320-7812	320-7812	F-6	35
Valve Gp - Solenoid and Manifold Quick Coupler	358-2081	358-2081	E-2	36

Tap Locations Pressure, Sampling, and Sensor		
Tap Number	Description	Schematic Location
T1	Pump Discharge Pressure	B-4
T2	Load Sense Pressure	C-4
T3	Pilot Pressure	D-6
T4	Filter Bypass Pressure	C-2





HYDRAULIC CIRCUIT COLOR DESCRIPTIONS	
[Red Line]	IMPLEMENT AND STEERING PUMP CIRCUIT
[Orange Line]	PILOT OIL CIRCUIT
[Yellow Line]	ROCKERS BRAKE OIL CIRCUIT
[Green Line]	LOAD SENSE CIRCUIT
[Blue Line]	SUPPLY LINE
[Light Blue Line]	DRAIN / RETURN LINE
[Light Green Line]	STEERING CYLINDER CIRCUIT
[Light Yellow Line]	LIFT CYLINDER CIRCUIT
[Light Orange Line]	TILT CYLINDER CIRCUIT
[Light Purple Line]	LOADER VALVE CIRCUIT
[Light Blue Line]	STABILIZER CYLINDER CIRCUIT
[Light Green Line]	BOOM CYLINDER CIRCUIT
[Light Yellow Line]	STICK CYLINDER CIRCUIT
[Light Orange Line]	SWING CYLINDER CIRCUIT
[Light Purple Line]	BUCKET CYLINDER CIRCUIT
[Light Blue Line]	E-STICK CYLINDER CIRCUIT
[Light Green Line]	COUPLER CIRCUIT (HOE)
[Light Yellow Line]	POWER SIDE-SHIFT CYLINDER CIRCUIT
[Light Orange Line]	SIDE-SHIFT LOCK CYLINDER CIRCUIT

LINE PATTERNS	
[Solid Line]	Pressure Line
[Dashed Line]	Pilot / Load Sensing Pressure
[Dotted Line]	Drain / Return Lines
[Dashed Box]	Component Group

CALLOUTS	
[Diamond]	TapPS (Pressure, Sampling, Sensor - by letter)
[Circle]	Connectors (by letter)
[Circle]	Callout Number (When Location/Line Component Location/Tab)
[Circle]	(52) VALVE GP - CONTROL 138-1234
[Circle]	Page Number

NOTE A: NOT AVAILABLE ON 422F
 NOTE B: OPTIONAL ATTACHMENT

THIS SCHEMATIC IS FOR THE 422F AND 428F BACKHOE LOADER HYDRAULIC SYSTEM
 MEDIA NUMBER: UENR3238-03
 SCHEMATIC PART NUMBER: 362-9207, CHANGE: 03, 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.