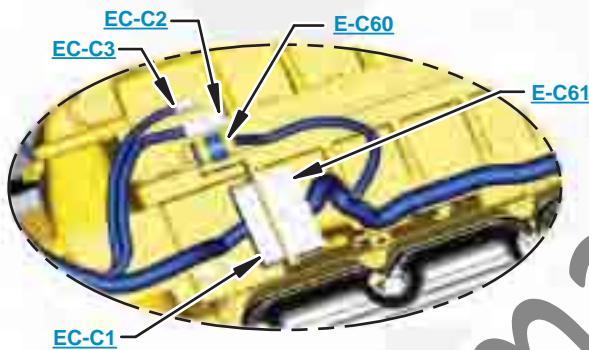




This document is best viewed at a screen resolution of 1024 X 768.

To set your screen resolution do the following:
RIGHT CLICK on the **DESKTOP**.
 Select **PROPERTIES**.
CLICK the **SETTINGS TAB**.
MOVE THE SLIDER under **SCREEN RESOLUTION** until it shows **1024 X 768**.
CLICK OK to apply the resolution.

The Bookmarks panel will allow you to quickly navigate to points of interest.



Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

VIEW ALL CALLOUTS

When only one callout is showing on a machine view this button will make all of the callouts visible. This button is located in the top right corner of every machine view page.

HOTKEYS (Keyboard Shortcuts)		
	FUNCTION	KEYS
	Zoom In	"CTRL" / "+"
	Zoom Out	"CTRL" / "-"
	Fit to Page	"CTRL" / "0" (zero)
	Hand Tool	"SPACEBAR" (hold down)
	Find	"CTRL" / "F"



Schematic

330D and 336D Excavator 336D MHPU Hydraulic System - Attachment

330D:
GBC1-UP
GGE1-UP
THJ1-UP
LRM1-UP
ERN1-UP
RAS1-UP
T2Y1-UP

336D:
JBF1-UP
KDJ1-UP
MYP1-UP
DTS1-UP
WET1-UP

336D: MHPU
M3M1-UP
M3N1-UP

System 14: Combined Function

COMPONENT LOCATION



Description	Part Number	Machine Location	Schematic Location
Accumulator Gp - Pilot Manifold	164-6981	1	B-4
Cylinder Gp - Boom	Note A	2	F-5
Cylinder Gp - Bucket	Note A	3	E-5
Cylinder Gp - Stick	Note A	4	F-5
Filter Gp - Case Drain	126-2075	5	A-4
Filter Gp - Pilot Hydraulic	158-8987	6	A-4
Filter Gp - Return Oil	188-4140	7	B-6
Motor Gp - Hydraulic Fan	234-4638	8	C-6
Motor Gp - Left Travel	271-6376	9	F-3
Motor Gp - Right Travel	271-6376	10	F-2
Motor Gp - Swing	200-3373	11	F-7
Pump Gp - Hydraulic Fan	259-0815	12	B-3
Pump Gp - Main and Pilot	283-6116	13	B-2
Sensor As - Left Pump Pressure.	221-8859	14	A-2
Sensor As - Right Pump Pressure.	221-8859	15	B-2
Switch As - Left Travel Pilot Pressure	167-3466	16	D-7
Switch As - Pilot Pressure	167-3466	17	A-7
Switch As - Right Travel Pilot pressure	167-3466	18	D-6
Swivel Gp	234-4440	19	E-3
Tank As - Hydraulic Oil	239-1661	20	A-5
Valve Gp - Check, Cooler Bypass	190-7745	21	C-6
Valve Gp - Heavy Lift Solenoid	121-6303	28	B-4
Valve Gp - Left Travel Counterbalance	204-2819	29	E-3
Valve Gp - Load Control Boom Cylinder	255-5683	30	D-1
Valve Gp - Load Control Stick Cylinder	255-5680	31	D-5
Valve Gp - Main Control	285-1345	32	C-2
Valve Gp - Pilot Manifold	215-5037	34	B-5
Valve Gp - Pilot, Bucket and Boom	270-5952	35	B-6
Valve Gp - Pilot, Stick and Swing	270-5951	36	B-7
Valve Gp - Press. Red. Boom/ Swing	232-4102	37	B-4
Valve Gp - Press. Red. Bucket/ Stick	232-4102	38	A-6
Valve Gp - Pressure Relief	206-3354	39	A-5
Valve Gp - Right Travel Counterbalance	204-2819	40	E-2
Valve Gp - Shuttle	185-0462	41	A-7
Valve Gp - Shuttle	259-7732	42	B-4
Valve Gp - Swing Cushion (Fine Swing)	158-9090	43	E-7
Valve Gp - Travel Pilot	270-5947	44	D-6
Attachments			
Valve Gp - Control, Auxiliary	259-7378	50	C-5
Valve Gp - ECV, Check Solenoid	297-0370	51	F-4
Valve Gp - ECV1, Check Solenoid	297-0370	52	E-4
Valve Gp - ECV2, Check Solenoid	297-0370	53	F-4
Valve Gp - ERV1, Sol. and Relief	244-8506	54	E-4
Valve Gp - ERV2, Sol. and Relief	244-8506	55	F-4
Valve Gp - Neg. Flow Control	171-0188	56	E-1
Valve Gp - Work Tool, (4 Function)	259-7429	57	E-1

Note A: Refer to service manual for specific cylinder information.

TAP LOCATION

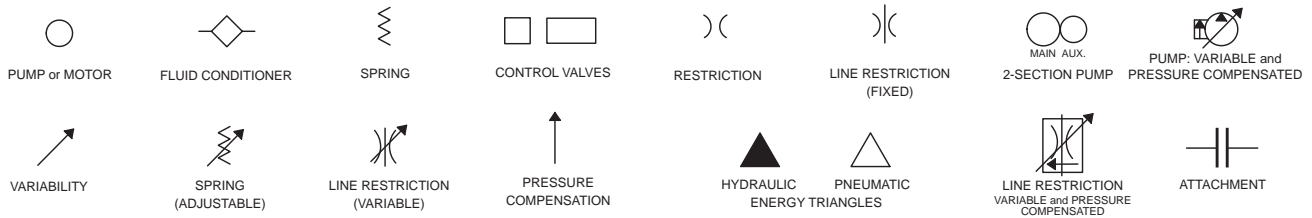


Tap Number	Description	Schematic Location
AA	Left Pump Delivery Pressure	B-1
BB	Right Pump Delivery Pressure	B-1
CC	Pilot Pump Delivery Pressure	A-4
GG	Pilot Pressure Pb1 (B1), Attachment	F-1
HH	Pilot Pressure Pa1 (B2), Attachment	F-1
II	Pilot Pressure bR2 (B3), Attachment	F-1
JJ	Pilot Pressure aR2 (B4), Attachment	F-2
KK	Right Pump Pilot Pressure	E-1
LL	Left Pump Pilot Pressure	E-1
OO	Pump Power Shift Pressure	B-2
SOS	Hydraulic Oil Sampling Port	A-4

FLUID POWER SYMBOLS



BASIC COMPONENT SYMBOLS



VALVE ENVELOPES

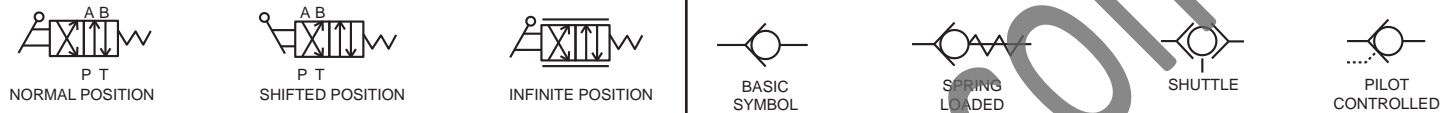
VALVES

VALVE PORTS



CONTROL VALVES

CHECK VALVES



FLUID STORAGE RESERVOIRS



MEASUREMENT

ROTATING SHAFTS



COMBINATION CONTROLS



MANUAL CONTROL SYMBOLS



RELEASED PRESSURE

PILOT CONTROL SYMBOLS

REMOTE SUPPLY PRESSURE



ACCUMULATORS

CROSSING AND JOINING LINES

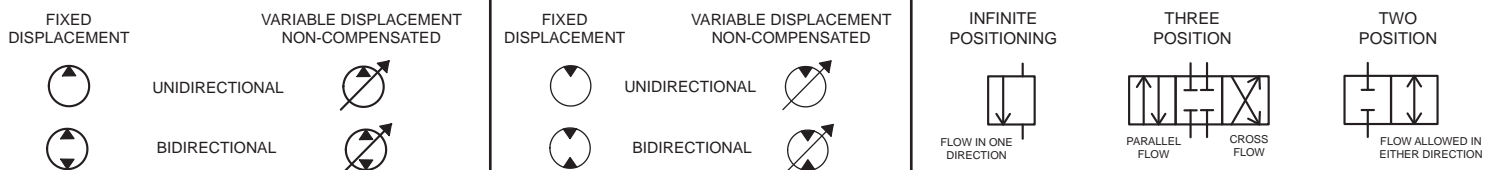
HYDRAULIC AND PNEUMATIC CYLINDERS



HYDRAULIC PUMPS

HYDRAULIC MOTORS

INTERNAL PASSAGEWAYS



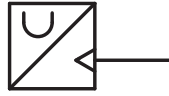
ELECTRICAL SYMBOLS



Hydraulic Symbols (Electrical)



Transducer
(Fluid)



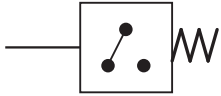
Transducer
(Gas / Air)



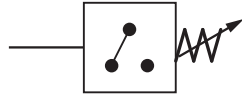
Generator



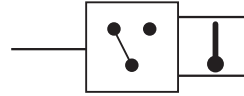
Electric Motor



Pressure Switch



Pressure Switch
(Adjustable)

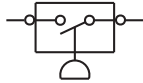


Temperature Switch

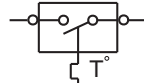


Electrical Wire

Electrical Symbols (Electrical)



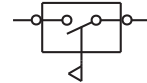
Pressure
Symbol



Temperature
Symbol



Level
Symbol

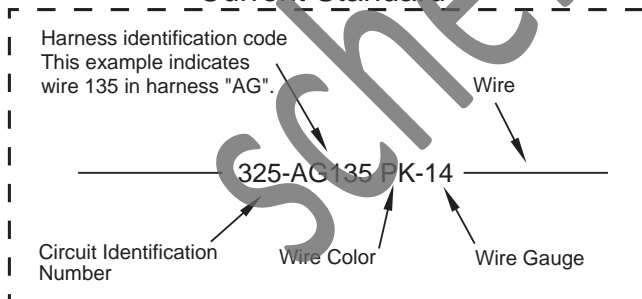


Flow
Symbol

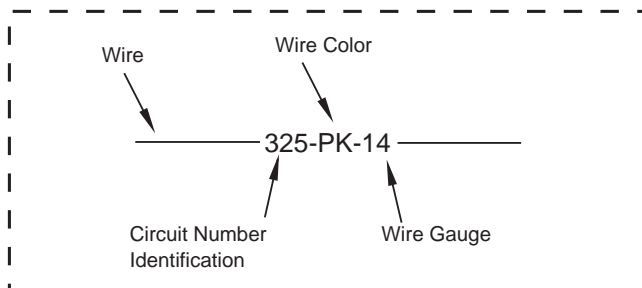
Wire Number Identification Codes

Electrical Schematic Example

Current Standard

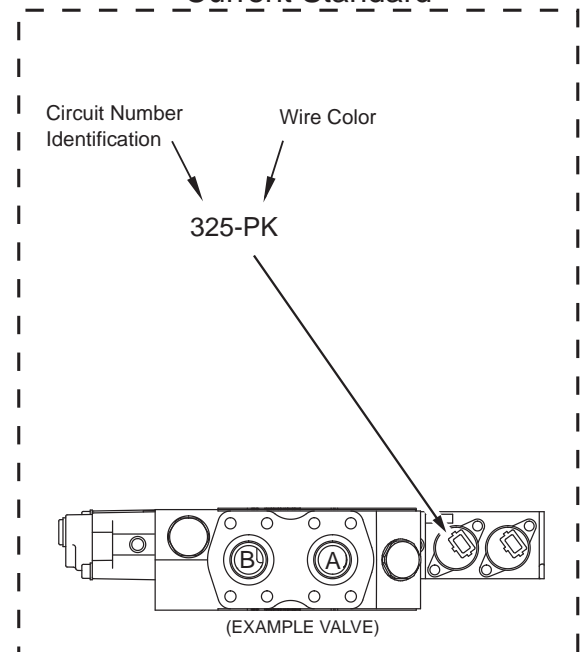


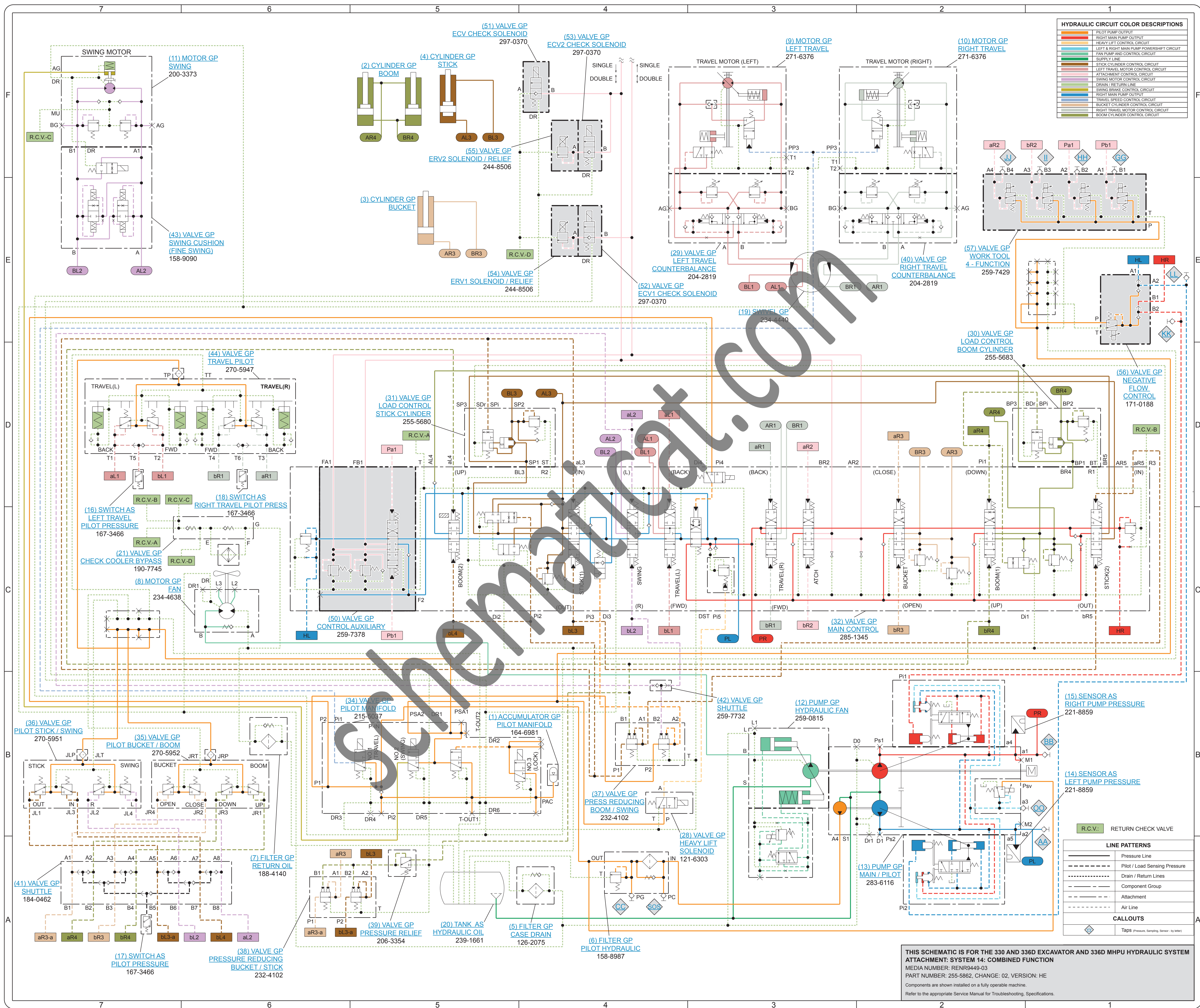
Previous Standard



Hydraulic Schematic Example

Current Standard





HYDRAULIC CIRCUIT COLOR DESCRIPTIONS

Orange	PILOT PUMP OUTPUT
Red	RIGHT MAIN PUMP OUTPUT
Yellow	HEAVY LIFT CONTROL CIRCUIT
Green	LEFT & RIGHT MAIN PUMP POWERSHIFT CIRCUIT
Light Green	FAN PUMP AND CONTROL CIRCUIT
Dark Green	SUPPLY LINE
Light Blue	STICK CYLINDER CONTROL CIRCUIT
Blue	LEFT TRAVEL MOTOR CONTROL CIRCUIT
Light Blue	LEFT TRAVEL MOTOR CONTROL CIRCUIT
Light Blue	SWING MOTOR CONTROL CIRCUIT
Light Blue	ATTACHMENT CONTROL CIRCUIT
Light Blue	RIGHT MAIN PUMP OUTPUT
Light Blue	DRAIN / RETURN LINE
Light Blue	SWING BRAKE CONTROL CIRCUIT
Light Blue	TRAVEL SPEED CONTROL CIRCUIT
Light Blue	BUCKET CYLINDER CONTROL CIRCUIT
Light Blue	RIGHT TRAVEL MOTOR CONTROL CIRCUIT
Light Blue	BOOM CYLINDER CONTROL CIRCUIT

LINE PATTERNS

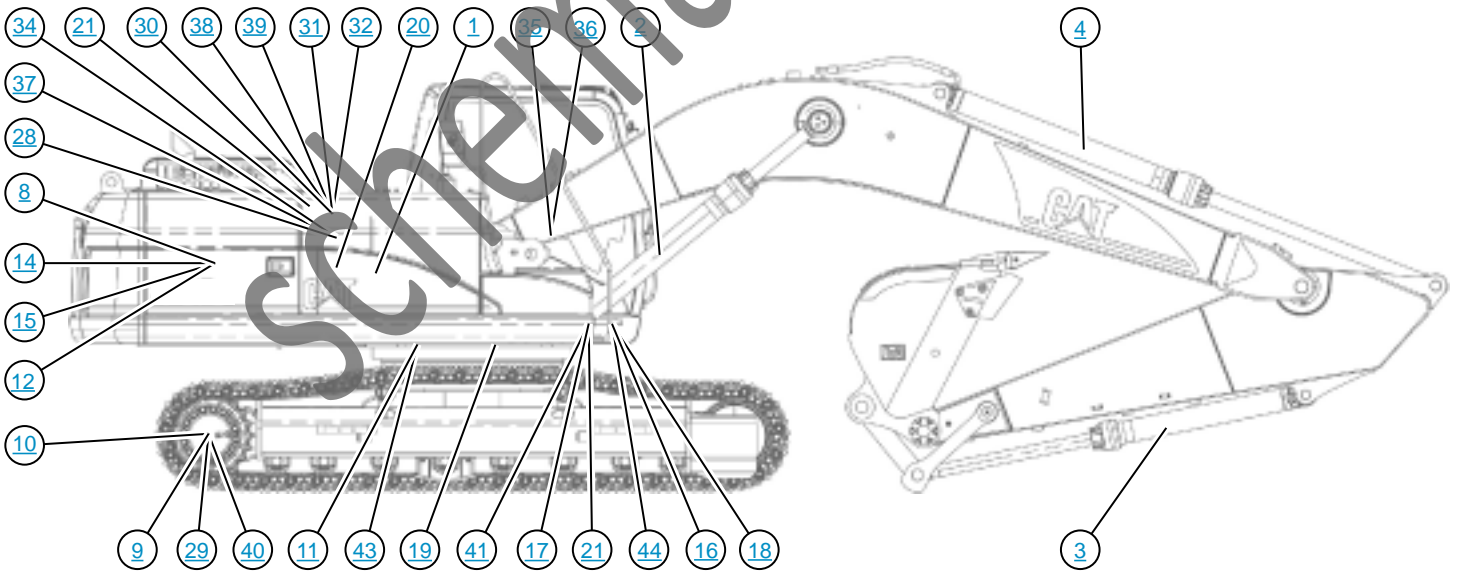
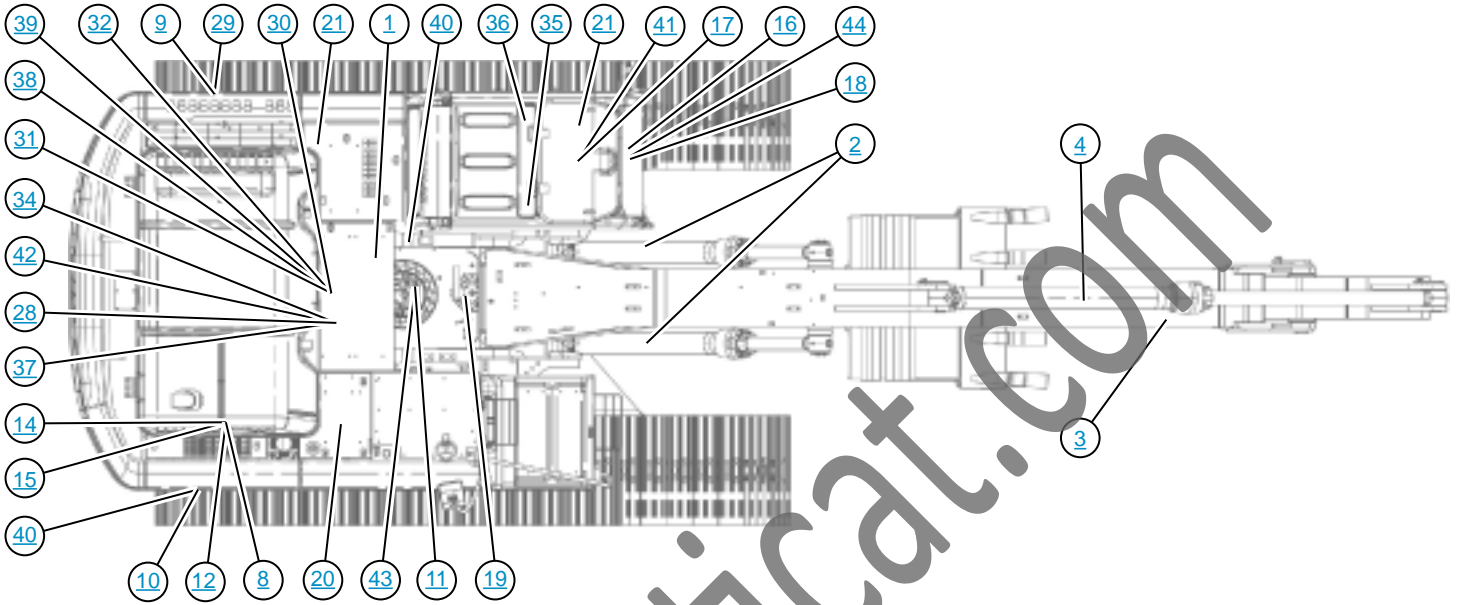
Orange line	Pressure Line
Red line	Pilot / Load Sensing Pressure
Green line	Drain / Return Lines
Blue line	Component Group
Light Blue line	Attachment
Light Blue line	Air Line

CALLOUTS

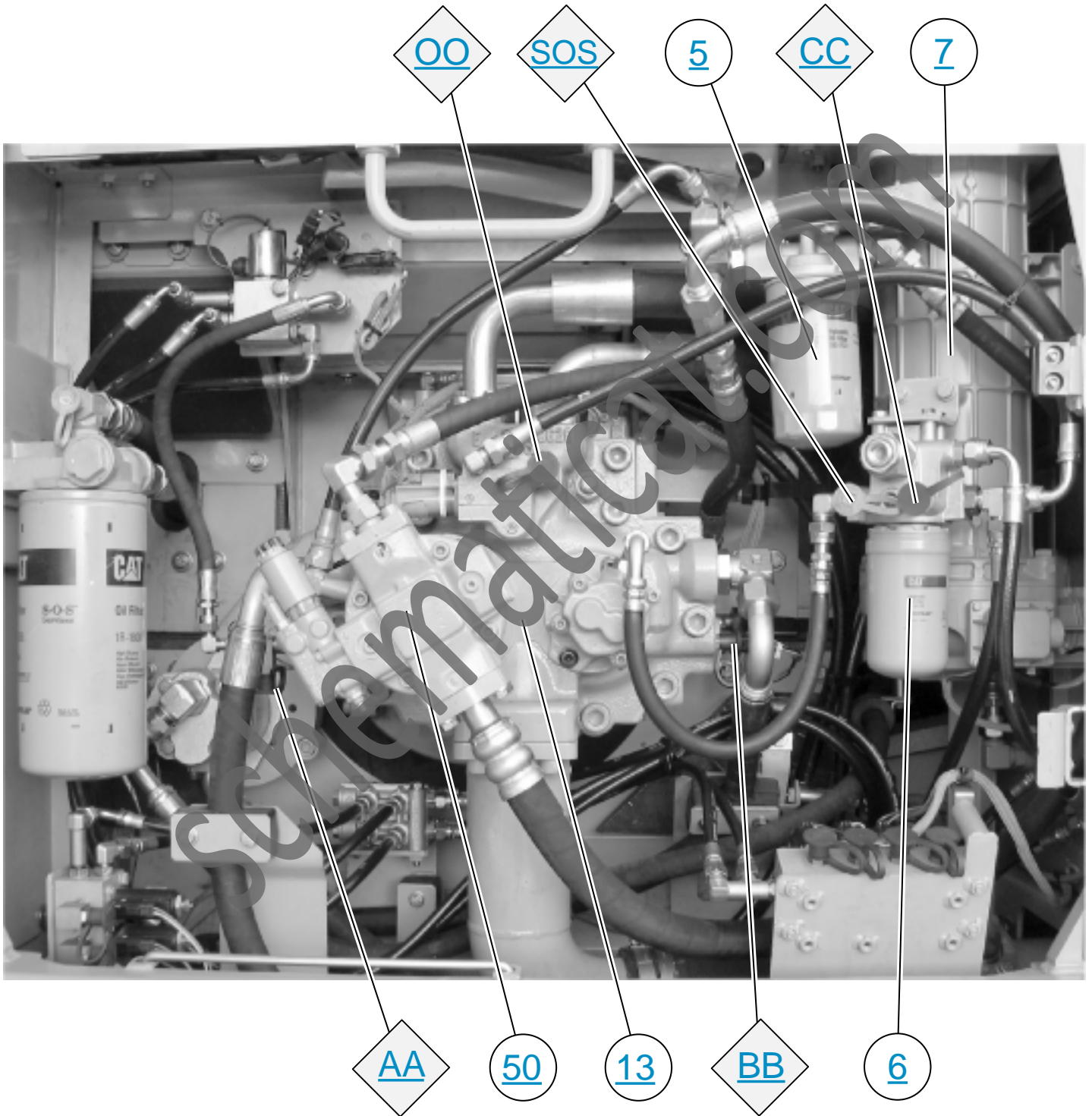
Symbol	Tap@ (Pressure, Sampling, Sensor, In, Out)
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THIS SCHEMATIC IS FOR THE 330 AND 336D EXCAVATOR AND 336D MHPU HYDRAULIC SYSTEM
ATTACHMENT: SYSTEM 14: COMBINED FUNCTION
 MEDIA NUMBER: RENR9449-03
 PART NUMBER: 255-5862, CHANGE: 02, VERSION: HE
 Components are shown installed on a fully operable machine.
 Refer to the appropriate Service Manual for Troubleshooting, Specifications.

MACHINE COMPONENT LOCATIONS



MAIN AND PILOT PUMP GP



MACHINE TAP LOCATIONS

