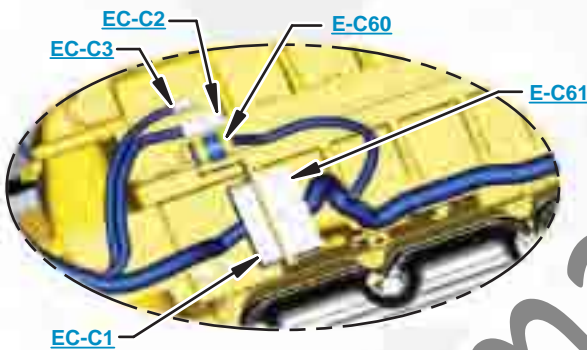


***This document is best viewed at a screen resolution of 1024 X 768.***

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

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318E Excavator  
Hydraulic System

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DZF1-UP  
WZS1-UP

SchematicCat.com

# COMPONENT LOCATION



Description	Part Number	Machine Location	Schematic Location
Accumulator Gp - Hydraulic (Canada BC/AL Reg.)	352-6860	<a href="#">1</a>	<a href="#">B-5</a>
Accumulator Gp - Hydraulic (Charged) (Standard)	164-6981		
Control Gp - Joy stick (LH)	323-7948	<a href="#">2</a>	<a href="#">B-8</a>
Control Gp - Joystick (RH)	323-7947	<a href="#">3</a>	<a href="#">B-7</a>
Filter & Valve Gp - Pilot (Hydraulic Oil)	158-8987	<a href="#">4</a>	<a href="#">B-4</a>
Filter Gp - Oil (Hydraulic, Case Drain)	289-8194	<a href="#">5</a>	<a href="#">A-4</a>
Filter Gp - Oil (Hydraulic, Main Return)	259-0869	<a href="#">6</a>	<a href="#">A-5</a>
Manifold & Solenoid Gp - Control (Heavy Boom Regeneration)	323-7895	<a href="#">7</a>	<a href="#">C-7</a>
Manifold Gp - Control (Pilot Oil Supply)	215-5037	<a href="#">8</a>	<a href="#">B-5</a>
Motor Gp - Piston	334-9967	<a href="#">9</a>	<a href="#">F-5</a>
Motor Gp - Travel (Left)	209-5992	<a href="#">10</a>	<a href="#">F-8</a>
Motor Gp - Travel (Right)	209-5992	<a href="#">11</a>	<a href="#">F-7</a>
Pump Gp - Main Hydraulic	349-9085	<a href="#">12</a>	<a href="#">B-3</a>
Screen Gp - Hydraulic (Tank)	259-0920	<a href="#">13</a>	<a href="#">A-4</a>
Sensor Gp - Pressure (Boom Down Ctrl)	338-6970	<a href="#">14</a>	<a href="#">A-8</a>
Sensor Gp - Pressure (Boom, Head End)	338-6971	<a href="#">15</a>	<a href="#">F-3</a>
Sensor Gp - Pressure (NFC1)	338-6970	<a href="#">16</a>	<a href="#">A-6</a>
Sensor Gp - Pressure (NFC2)	338-6970	<a href="#">17</a>	<a href="#">A-6</a>
Sensor Gp - Pressure (Overload Warning)	338-6971	<a href="#">18</a>	<a href="#">C-4</a>
Sensor Gp - Pressure (Overload Warning)	338-6971	<a href="#">19</a>	<a href="#">C-3</a>
Sensor Gp - Pressure (Swing Ctrl)	338-6970	<a href="#">20</a>	<a href="#">A-7</a>
Switch As - Pressure (Implement)	319-4407	<a href="#">21</a>	<a href="#">A-8</a>
Switch As - Pressure (Left Travel)	319-4407	<a href="#">22</a>	<a href="#">C-8</a>
Switch As - Pressure (Right Travel)	319-4407	<a href="#">23</a>	<a href="#">C-7</a>
Swivel Gp	162-4696	<a href="#">24</a>	<a href="#">E-7</a>
Tank Gp - Hydraulic	359-5821	<a href="#">25</a>	<a href="#">A-5</a>
Valve Gp - Check (Cooler Bypass)	171-0002	<a href="#">26</a>	<a href="#">C-1</a>
Valve Gp - Main Control	369-8306	<a href="#">27</a>	<a href="#">E-4</a>
Valve Gp - Pilot (Travel)	369-8502	<a href="#">28</a>	<a href="#">D-8</a>
Valve Gp - Pressure Reducing ( Boom Priority)	352-7065	<a href="#">29</a>	<a href="#">B-2</a>
Valve Gp - Pump Control	310-0107	<a href="#">30</a>	<a href="#">A-6</a>
Valve Gp - Shuttle	323-7560	<a href="#">31</a>	<a href="#">A-8</a>
Valve Gp - Swing Cushion	158-9085	<a href="#">32</a>	<a href="#">E-6</a>
Valve Gp - Travel Counterbalance (Left)	322-8714	<a href="#">33</a>	<a href="#">E-8</a>
Valve Gp - Travel Counterbalance (Right)	322-8714	<a href="#">34</a>	<a href="#">E-7</a>

# TAP LOCATION

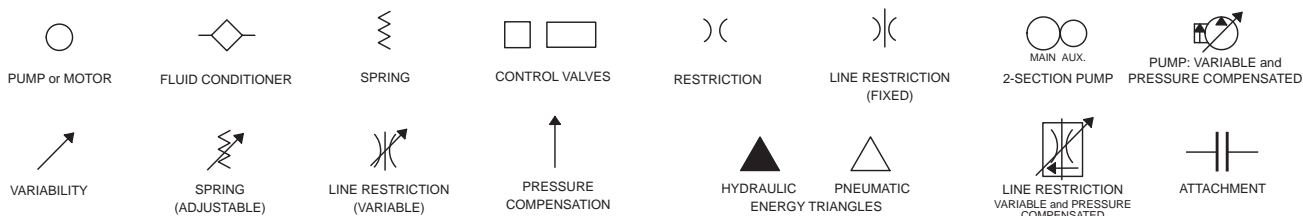


<b>Tap Number</b>	<b>Description</b>	<b>Schematic Location</b>
<a href="#"><u>AA</u></a>	Drive Pump Delivery Pressure	<a href="#"><u>B-3</u></a>
<a href="#"><u>BB</u></a>	Idler Pump Delivery Pressure	<a href="#"><u>A-3</u></a>
<a href="#"><u>CC</u></a>	Power Shift Pressure	<a href="#"><u>A-3</u></a>
<a href="#"><u>DD</u></a>	Pump Case Pressure	<a href="#"><u>A-3</u></a>
<a href="#"><u>EE</u></a>	Drive Pump Negative Flow Press. (NFC1)	<a href="#"><u>A-6</u></a>
<a href="#"><u>FF</u></a>	Idler Pump Negative Flow Press. (NFC2)	<a href="#"><u>A-6</u></a>
<a href="#"><u>GG</u></a>	Boom Regeneration Valve Pressure	<a href="#"><u>C-7</u></a>
<a href="#"><u>PG</u></a>	Pilot Pump Delivery Pressure	<a href="#"><u>B-4</u></a>
<a href="#"><u>SOS</u></a>	Oil Sampling Port	<a href="#"><u>B-4</u></a>

# FLUID POWER SYMBOLS



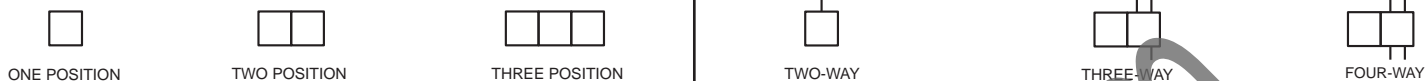
## BASIC COMPONENT SYMBOLS



## VALVE ENVELOPES

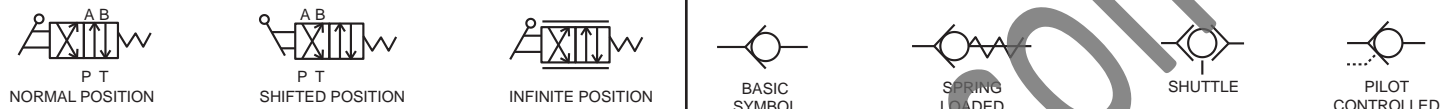
## VALVES

## 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

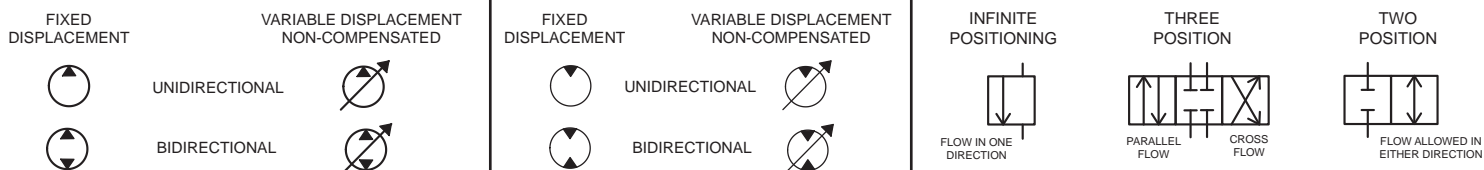
## HYDRAULIC AND PNEUMATIC CYLINDERS



## HYDRAULIC PUMPS

## HYDRAULIC MOTORS

## INTERNAL PASSAGEWAYS



# ELECTRICAL SYMBOLS



## Hydraulic Symbols (Electrical)



Transducer  
(Fluid)



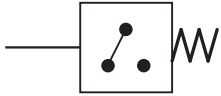
Transducer  
(Gas / Air)



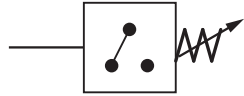
Generator



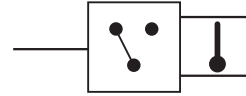
Electric Motor



Pressure Switch



Pressure Switch  
(Adjustable)

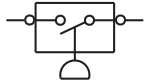


Temperature Switch

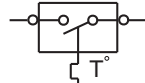


Electrical Wire

## Electrical Symbols (Electrical)



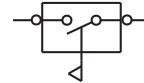
Pressure  
Symbol



Temperature  
Symbol



Level  
Symbol

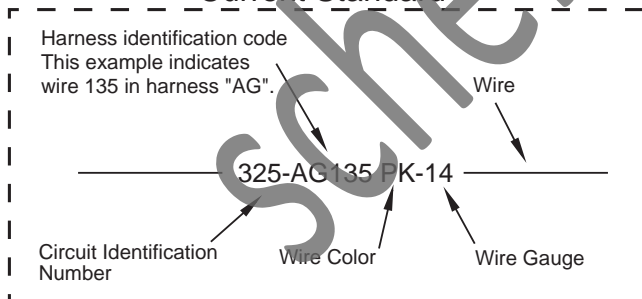


Flow  
Symbol

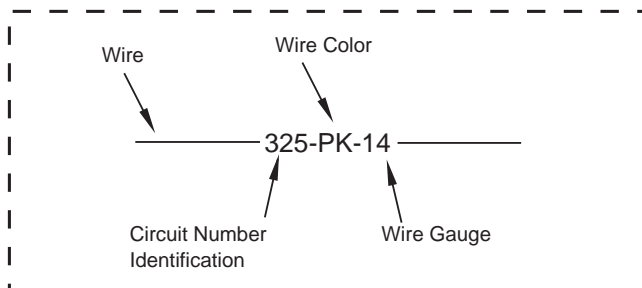
## Wire Number Identification Codes

### Electrical Schematic Example

#### Current Standard

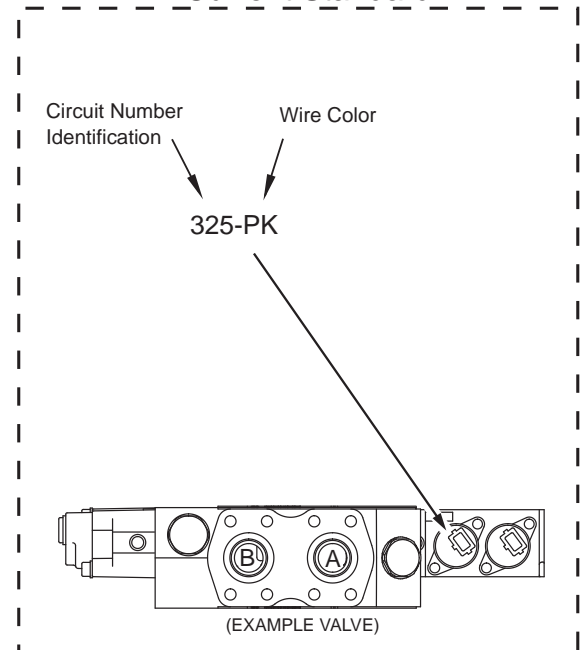


#### Previous Standard

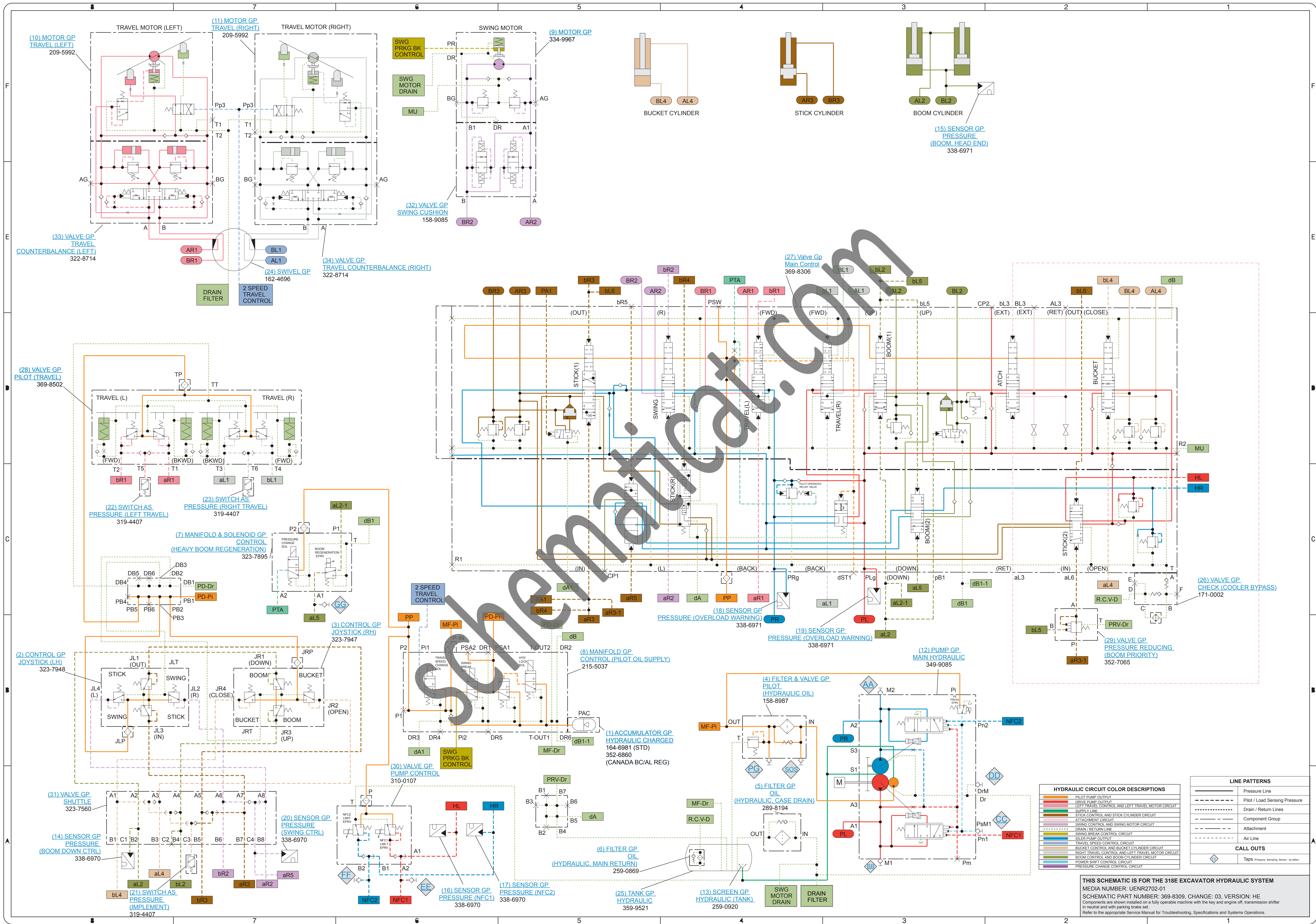


### Hydraulic Schematic Example

#### Current Standard







HYDRAULIC CIRCUIT COLOR DESCRIPTIONS	
Orange	PILOT PUMP OUTPUT
Red	DRIVE PUMP OUTPUT
Green	LEFT TRAVEL CONTROL AND LEFT TRAVEL MOTOR CIRCUIT
Blue	RIGHT TRAVEL CONTROL AND RIGHT TRAVEL MOTOR CIRCUIT
Yellow	ATTACHMENT CIRCUIT
Purple	STICK CONTROL AND STICK CYLINDER CIRCUIT
Brown	SWING CONTROL AND SWING MOTOR CIRCUIT
Light Blue	DRAIN RETURN LINE
Light Green	SWING BREAK CONTROL CIRCUIT
Light Purple	BUCKET PUMP OUTPUT
Light Orange	TRAVEL SPEED CONTROL CIRCUIT
Light Red	BUCKET CONTROL AND BUCKET CYLINDER CIRCUIT
Light Yellow	RIGHT TRAVEL CONTROL AND RIGHT TRAVEL MOTOR CIRCUIT
Light Blue-Gray	BOOM CONTROL AND BOOM CYLINDER CIRCUIT
Light Green-Gray	POWER SHIFT CONTROL CIRCUIT
Light Purple-Gray	PRESSURE CHANGE CONTROL CIRCUIT

LINE PATTERNS	
—	Pressure Line
- - -	Pilot / Load Sensing Pressure
· · · · ·	Drain / Return Lines
— · — · —	Component Group
- · - · -	Attachment
- · - · - · -	Air Line

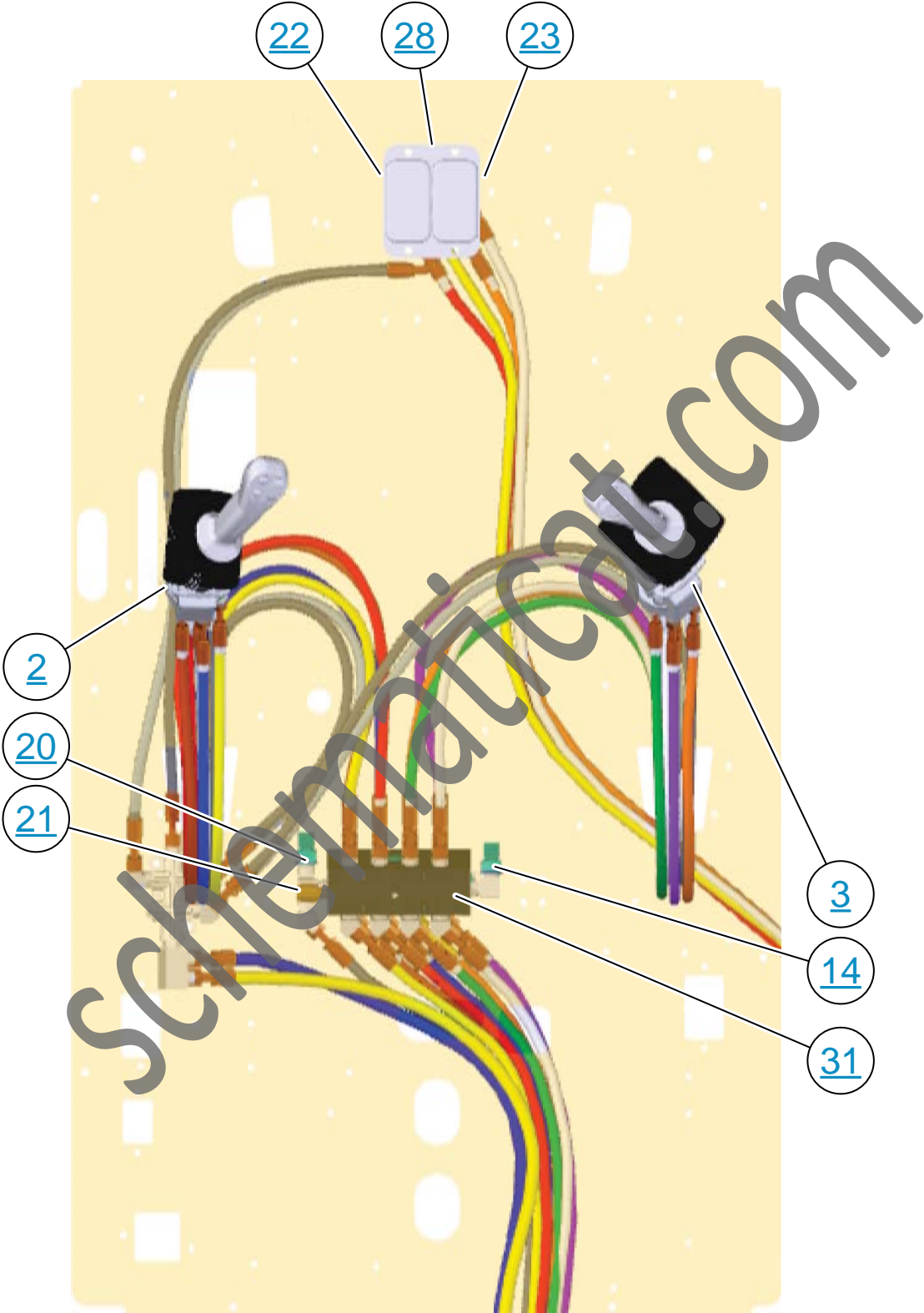
CALL OUTS	
◇	Taps Pressure Sensing Sensor (by model)

THIS SCHEMATIC IS FOR THE 318E EXCAVATOR HYDRAULIC SYSTEM  
 MEDIA NUMBER: UENR2702-01  
 SCHEMATIC PART NUMBER: 369-8309, CHANGE: 03, VERSION: HE  
 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 Operations.

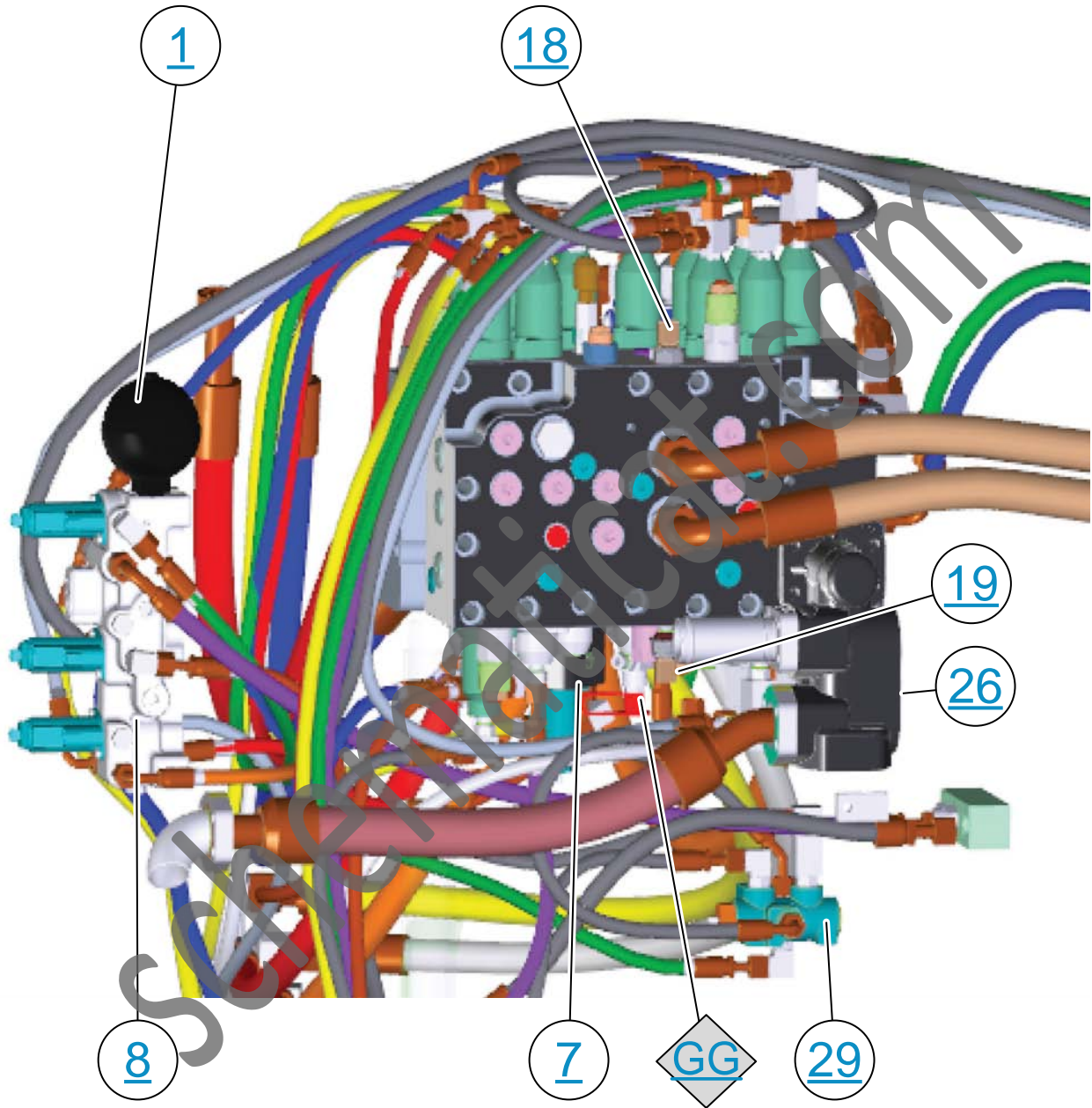
# MACHINE COMPONENT LOCATIONS







# MAIN CONTROL VALVE



# MAIN PUMP

