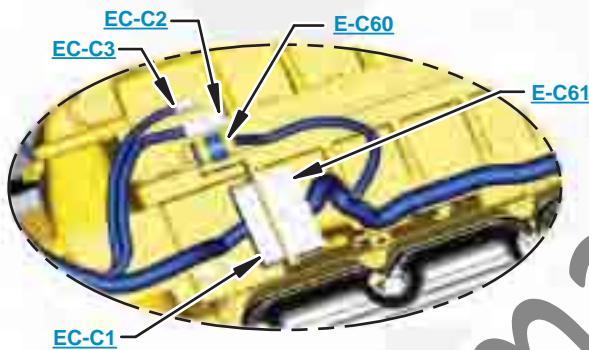




***This document is best viewed at a screen resolution of 1024 X 768.***

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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## 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  
LMG1-UP  
KDJ1-UP  
MYP1-UP  
JWR1-UP  
DTS1-UP  
WET1-UP

**336D MHPU:**

M3M1-UP  
M3N1-UP

**Smart Boom (Boom Float)**

---

# COMPONENT LOCATION



Description	Part Number	Machine Location	Schematic Location
<b>Attachments</b>			
Block	185-0488	<a href="#">1</a>	<a href="#">D-2</a>
Plate	199-2012	<a href="#">2</a>	<a href="#">E-1</a>
Valve Gp - Check	(EC1) 297-0371	<a href="#">3</a>	<a href="#">E-1</a>
	(EC2) 297-0370	<a href="#">4</a>	<a href="#">E-1</a>
Valve Gp - Flow Control (Boom Float, Pilot Oil)	201-9236	<a href="#">5</a>	<a href="#">E-1</a>
Valve Gp - Load Control	263-1962	<a href="#">6</a>	<a href="#">E-3</a>
(Boom Lowering, Drift Reduction, Relief)		<a href="#">7</a>	<a href="#">E-2</a>
Valve Gp - Manual (Boom Lower)	270-5692	<a href="#">8</a>	<a href="#">E-2</a>
Valve Gp - Solenoid	185-0472	<a href="#">9</a>	<a href="#">D-1</a>
<b>Standard 330D/336D/336D MHPU with Heavy Lift and Fine Swing</b>			
Accumulator Gp - Hydraulic (Charged)	164-6981	<a href="#">10</a>	<a href="#">A-4</a>
Cylinder Gp - Boom	NOTE A	<a href="#">11</a>	<a href="#">F-2</a>
Cylinder Gp - Bucket	NOTE A	<a href="#">12</a>	<a href="#">F-7</a>
Cylinder Gp - Stick	NOTE A	<a href="#">13</a>	<a href="#">E-7</a>
Filter & Valve Gp - Pilot (Hydraulic Oil)	158-8987	<a href="#">14</a>	<a href="#">A-4</a>
Filter Gp - Oil (Hydraulic Return)	188-4140	<a href="#">15</a>	<a href="#">A-6</a>
Filter Gp - Oil (Hydraulic, Case Drain)	289-8194	<a href="#">16</a>	<a href="#">A-4</a>
Manifold Gp - Control (Pilot Oil)	215-5037	<a href="#">17</a>	<a href="#">B-5</a>
Motor Gp - Piston (Fan)	234-4638	<a href="#">18</a>	<a href="#">A-7</a>
Motor Gp - Swing	200-3373	<a href="#">19</a>	<a href="#">F-5</a>
Motor Gp - Travel	271-6376	<a href="#">20</a>	<a href="#">F-5</a>
		<a href="#">21</a>	<a href="#">F-3</a>
Pump Gp - Piston (Hydraulic Fan)	259-0815	<a href="#">22</a>	<a href="#">B-3</a>
Pump Gp - Piston (with Pilot Gear Pump)	322-8733	<a href="#">23</a>	<a href="#">B-2</a>
Swivel Gp	234-4440	<a href="#">24</a>	<a href="#">E-4</a>
Valve Gp - Check (Oil Cooler Bypass) (Control Valve)	190-7745	<a href="#">25</a>	<a href="#">A-7</a>
Valve Gp - Load Control (Stick Drift Red, Line Relief)	255-5683	<a href="#">26</a>	<a href="#">D-5</a>
Valve Gp - Main Control	285-1345	<a href="#">27</a>	<a href="#">C-1</a>
Valve Gp - Pilot (Joystick, LH)	297-0531	<a href="#">28</a>	<a href="#">C-7</a>
Valve Gp - Pilot (Joystick, RH)	297-0530	<a href="#">29</a>	<a href="#">C-6</a>
Valve Gp - Pilot (Travel)	310-0414	<a href="#">30</a>	<a href="#">D-7</a>
Valve Gp - Pressure Reducing (Boom Priority)	232-4102	<a href="#">31</a>	<a href="#">A-6</a>
Valve Gp - Pressure Reducing (Boom Up Priority) (Stick-In Priority)	206-3354	<a href="#">32</a>	<a href="#">B-6</a>
Valve Gp - Pressure Reducing (Boom, Swing Priority)	232-4102	<a href="#">33</a>	<a href="#">B-4</a>
Valve Gp - Shuttle	185-0462	<a href="#">34</a>	<a href="#">B-6</a>
	123-2430	<a href="#">35</a>	<a href="#">B-4</a>
Valve Gp - Solenoid (Heavy Lift)	121-6303	<a href="#">36</a>	<a href="#">A-4</a>
Valve Gp - Swing Cushion With Fine Swing	158-9090	<a href="#">37</a>	<a href="#">E-5</a>
Valve Gp - Swing Cushion Without Fine Swing		<a href="#">37</a>	<a href="#">F-6</a>
Valve Gp - Travel Counterbalance	204-2819	<a href="#">38</a>	<a href="#">E-5</a>
		<a href="#">39</a>	<a href="#">E-3</a>

Note A: Refer to Parts Manual for your specific machine.

# TAP LOCATION



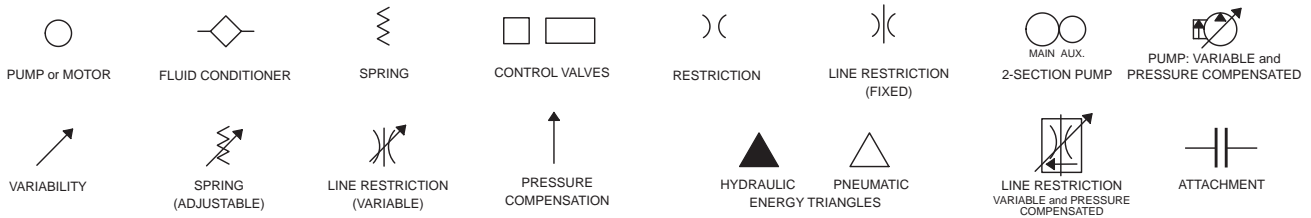
Tap Number	Description	Schematic Location
<a href="#">AA</a>	Pilot Filter Pressure Test Port	<a href="#">A-4</a>
<a href="#">BB</a>	Drive Pump Pressure Test Port	<a href="#">B-2</a>
<a href="#">CC</a>	Power Shift Pressure Test Port	<a href="#">A-1</a>
<a href="#">DD</a>	Idler Pump Pressure Test Port	<a href="#">A-1</a>
<a href="#">SOS</a>	Hydraulic Oil Sampling Port	<a href="#">A-4</a>

SchematicCat.com

# FLUID POWER SYMBOLS



## BASIC COMPONENT SYMBOLS



## VALVE ENVELOPES

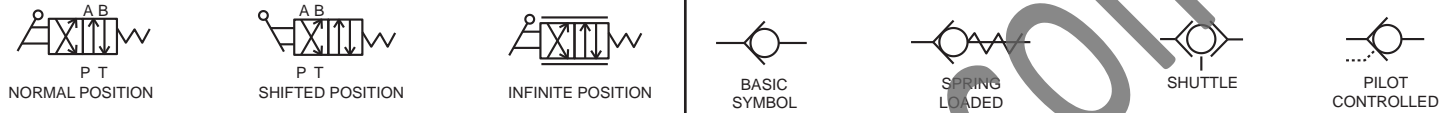
## VALVES

## VALVE PORTS



## CONTROL VALVES

## CHECK VALVES



## FLUID STORAGE RESERVOIRS



## MEASUREMENT

## ROTATING SHAFTS



## COMBINATION CONTROLS



## MANUAL CONTROL SYMBOLS



## RELEASED PRESSURE

## PILOT CONTROL SYMBOLS

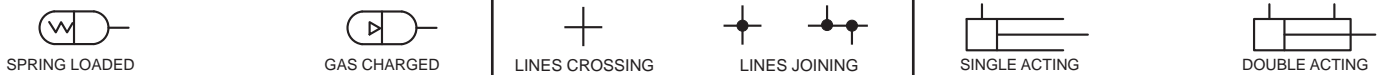
## REMOTE SUPPLY PRESSURE



## ACCUMULATORS

## CROSSING AND JOINING LINES

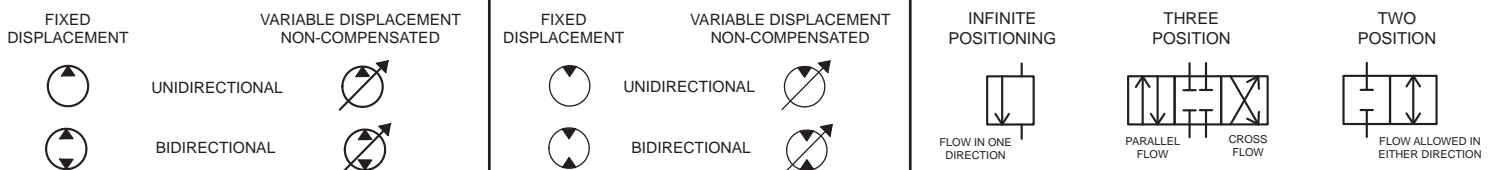
## HYDRAULIC AND PNEUMATIC CYLINDERS



## HYDRAULIC PUMPS

## HYDRAULIC MOTORS

## INTERNAL PASSAGEWAYS



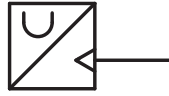
# ELECTRICAL SYMBOLS



## Hydraulic Symbols (Electrical)



Transducer  
(Fluid)



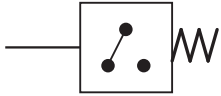
Transducer  
(Gas / Air)



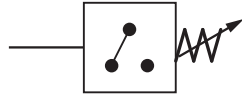
Generator



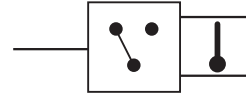
Electric Motor



Pressure Switch



Pressure Switch  
(Adjustable)

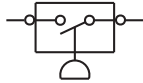


Temperature Switch

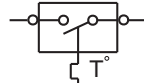


Electrical Wire

## Electrical Symbols (Electrical)



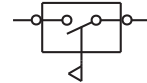
Pressure  
Symbol



Temperature  
Symbol



Level  
Symbol

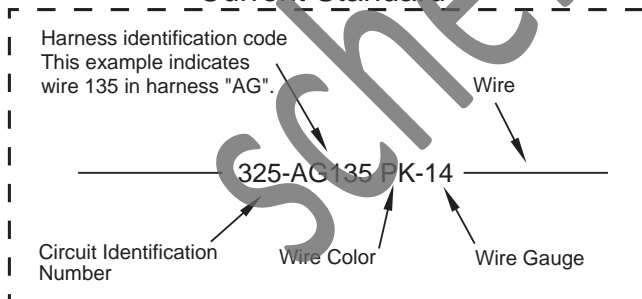


Flow  
Symbol

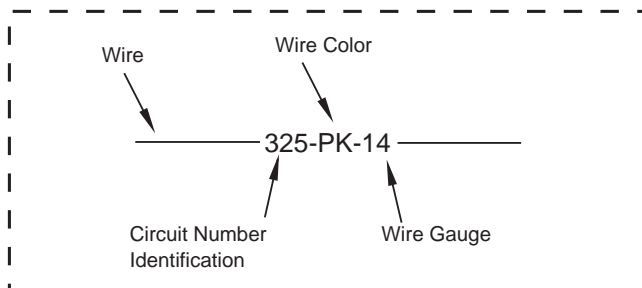
## Wire Number Identification Codes

### Electrical Schematic Example

#### Current Standard

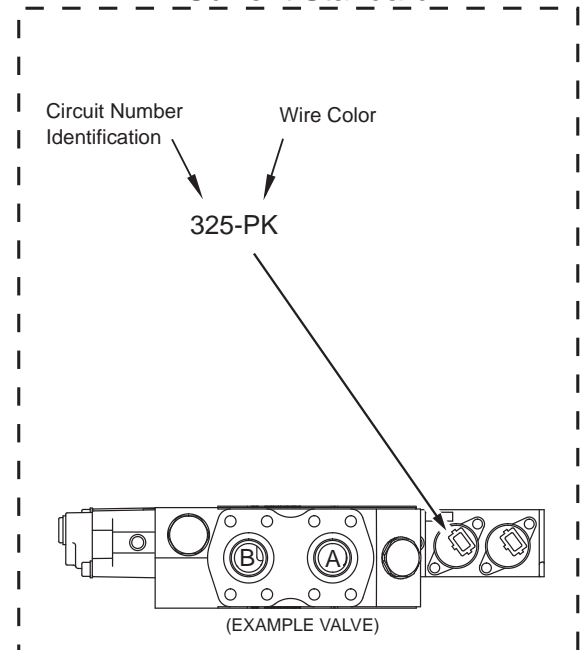


#### Previous Standard

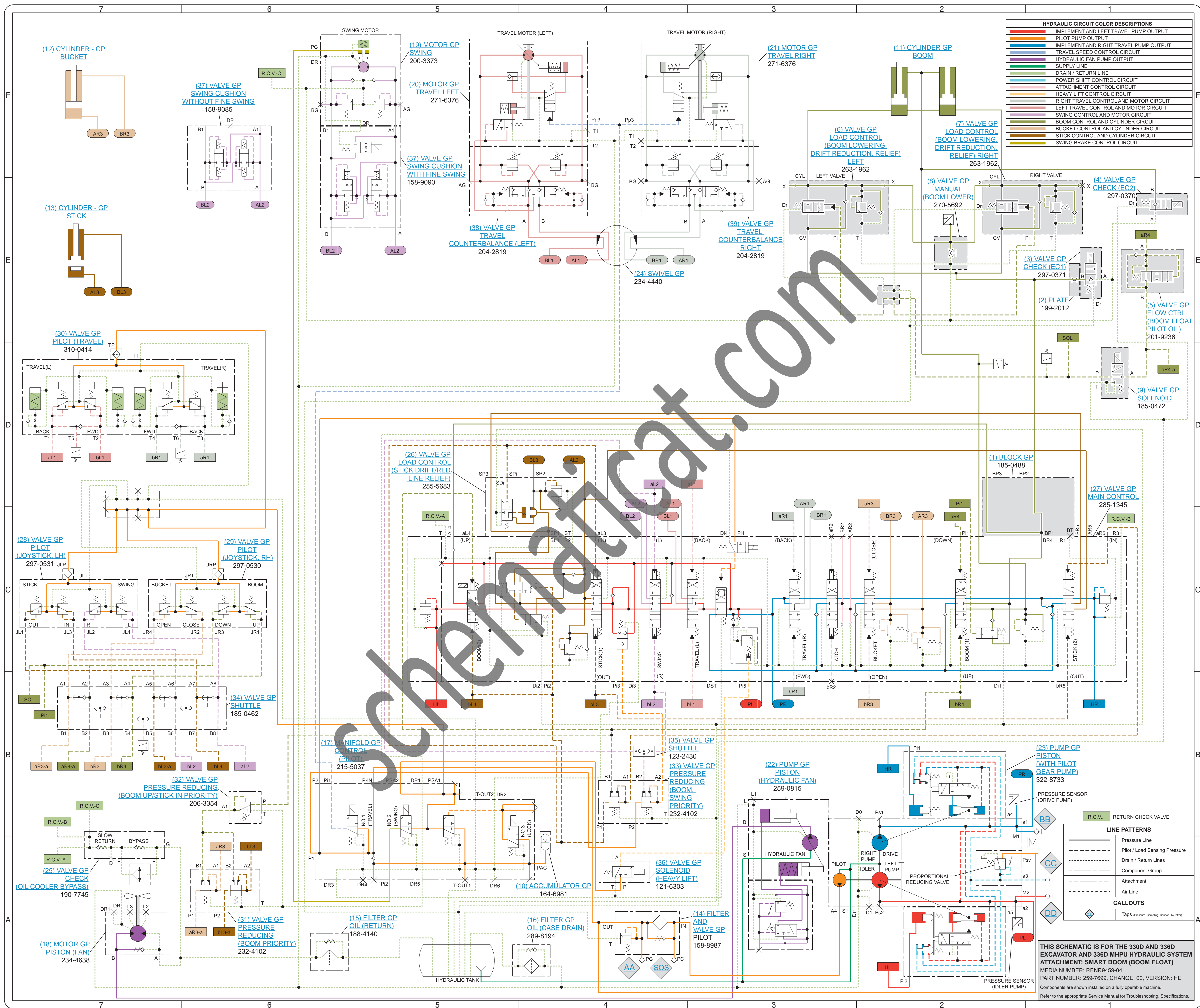


### Hydraulic Schematic Example

#### Current Standard







HYDRAULIC CIRCUIT COLOR DESCRIPTIONS	
[Red Line]	IMPLEMENT AND LEFT TRAVEL PUMP OUTPUT
[Orange Line]	PILOT PUMP OUTPUT
[Blue Line]	IMPLEMENT AND RIGHT TRAVEL PUMP OUTPUT
[Light Blue Line]	TRAVEL SPEED CONTROL CIRCUIT
[Purple Line]	HYDRAULIC FAN PUMP OUTPUT
[Green Line]	SUPPLY LINE
[Dark Green Line]	DRAIN / RETURN LINE
[Light Green Line]	POWER SHIFT CONTROL CIRCUIT
[Yellow Line]	ATTACHMENT CONTROL CIRCUIT
[Light Yellow Line]	HEAVY LIFT CONTROL CIRCUIT
[Light Purple Line]	RIGHT TRAVEL CONTROL AND MOTOR CIRCUIT
[Light Blue-Gray Line]	LEFT TRAVEL CONTROL AND MOTOR CIRCUIT
[Light Green-Gray Line]	SWING CONTROL AND MOTOR CIRCUIT
[Light Blue Line]	BOOM CONTROL AND CYLINDER CIRCUIT
[Light Green Line]	BUCKET CONTROL AND CYLINDER CIRCUIT
[Light Yellow Line]	STICK CONTROL AND CYLINDER CIRCUIT
[Light Purple Line]	SWING BRAKE CONTROL CIRCUIT

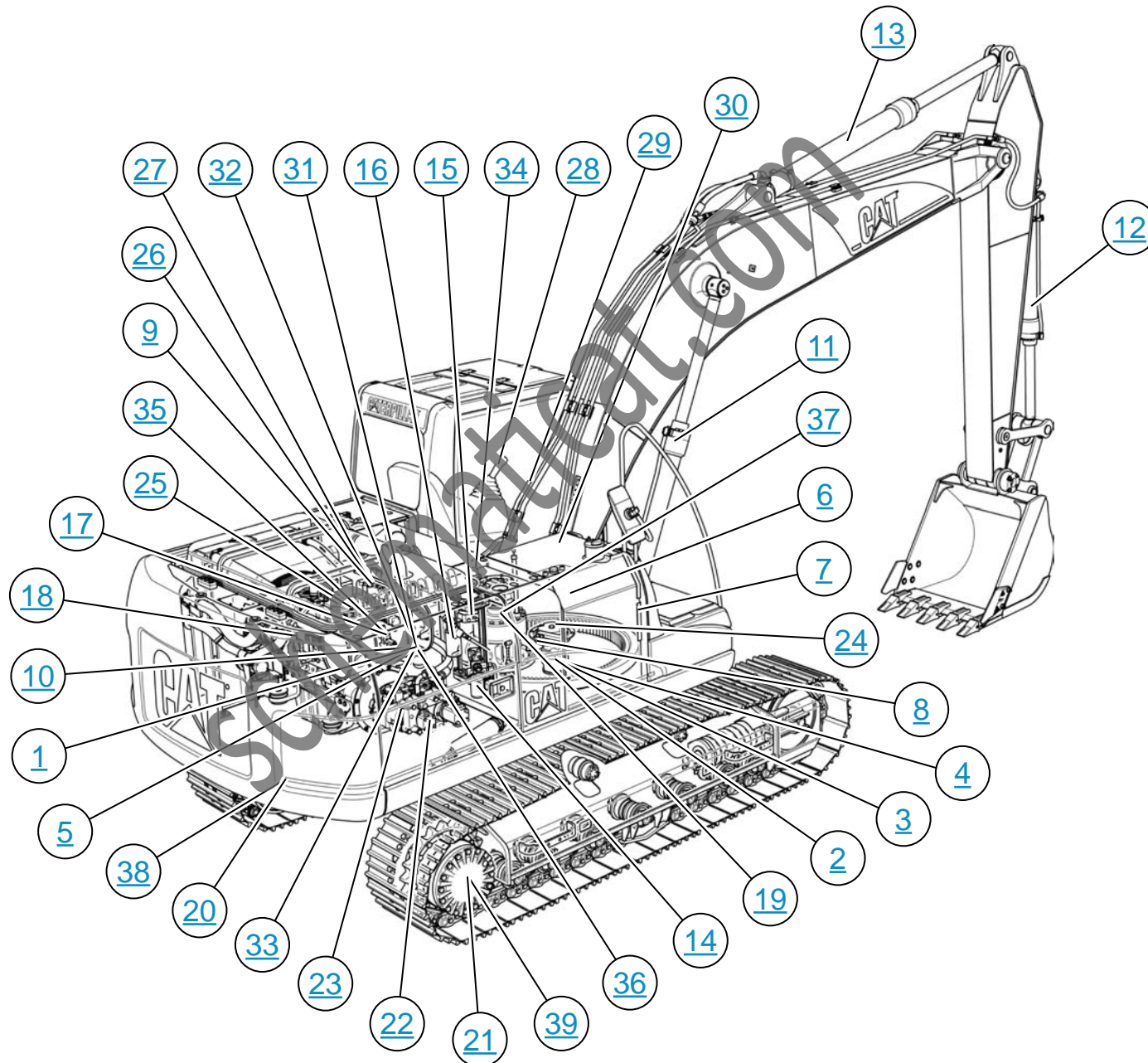
LINE PATTERNS	
[Solid Line]	Pressure Line
[Dashed Line]	Pilot / Load Sensing Pressure
[Dotted Line]	Drain / Return Lines
[Dash-dot Line]	Component Group
[Long-dash Line]	Attachment
[Short-dash Line]	Air Line

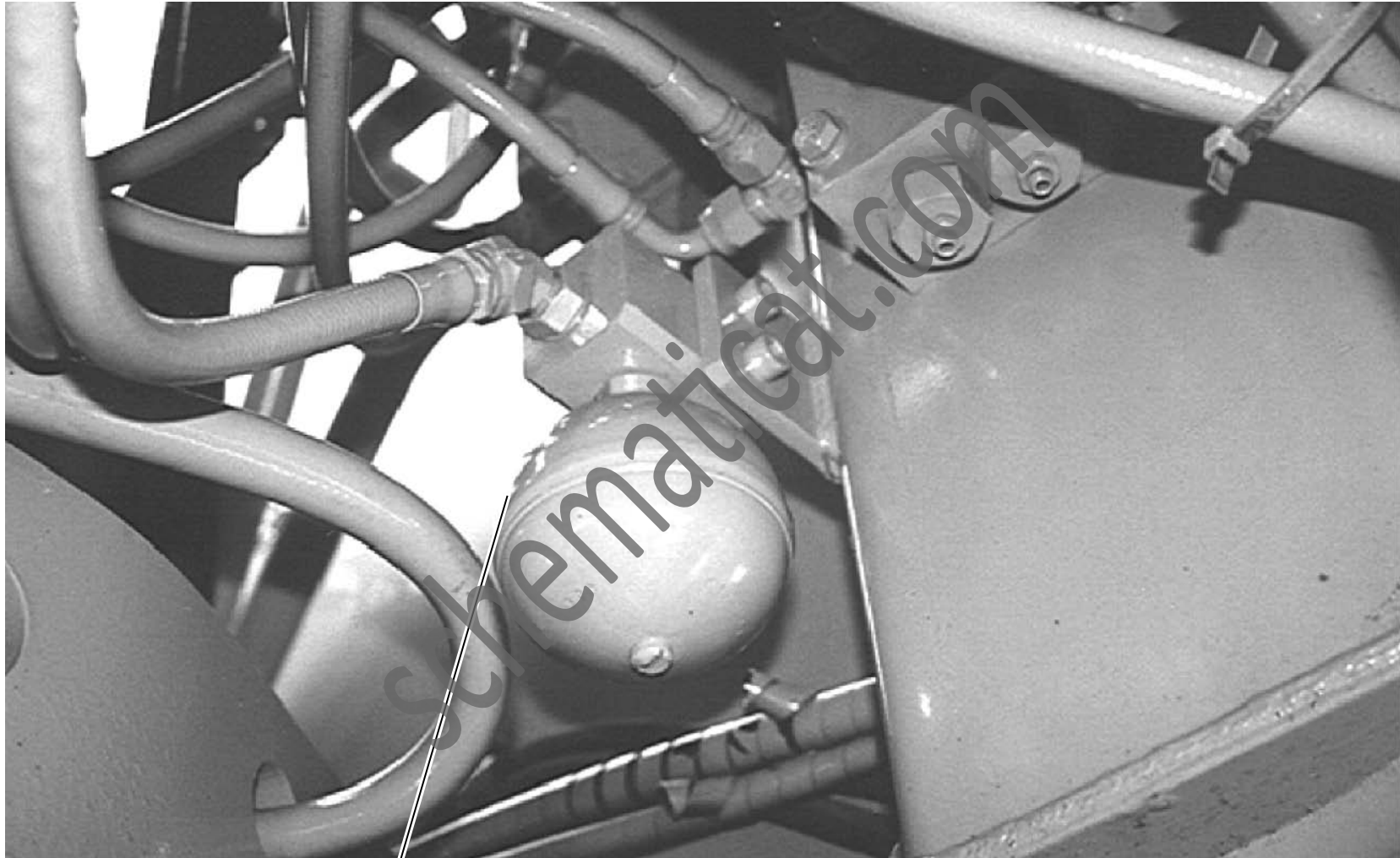
CALLOUTS	
[Diamond]	TapS (Pressure, Sampling, Sensor - by wire)

THIS SCHEMATIC IS FOR THE 330D AND 336D EXCAVATOR AND 336D MHPU HYDRAULIC SYSTEM ATTACHMENT: SMART BOOM (BOOM FLOAT) MEDIA NUMBER: RENR9459-04 PART NUMBER: 259-7699, CHANGE: 00, VERSION: HE Components are shown installed on a fully operable machine. Refer to the appropriate Service Manual for Troubleshooting, Specifications.

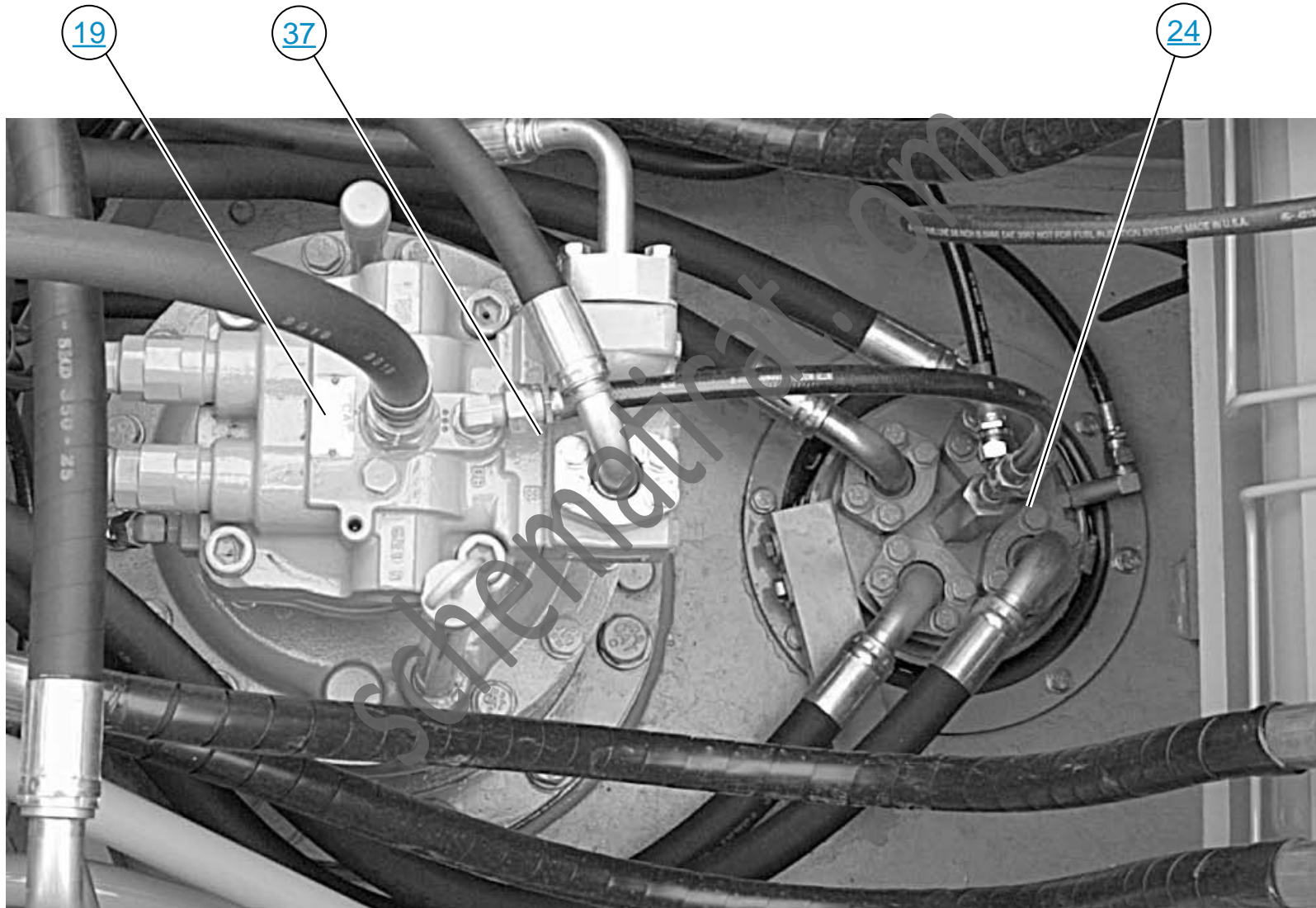
# MACHINE COMPONENT LOCATIONS

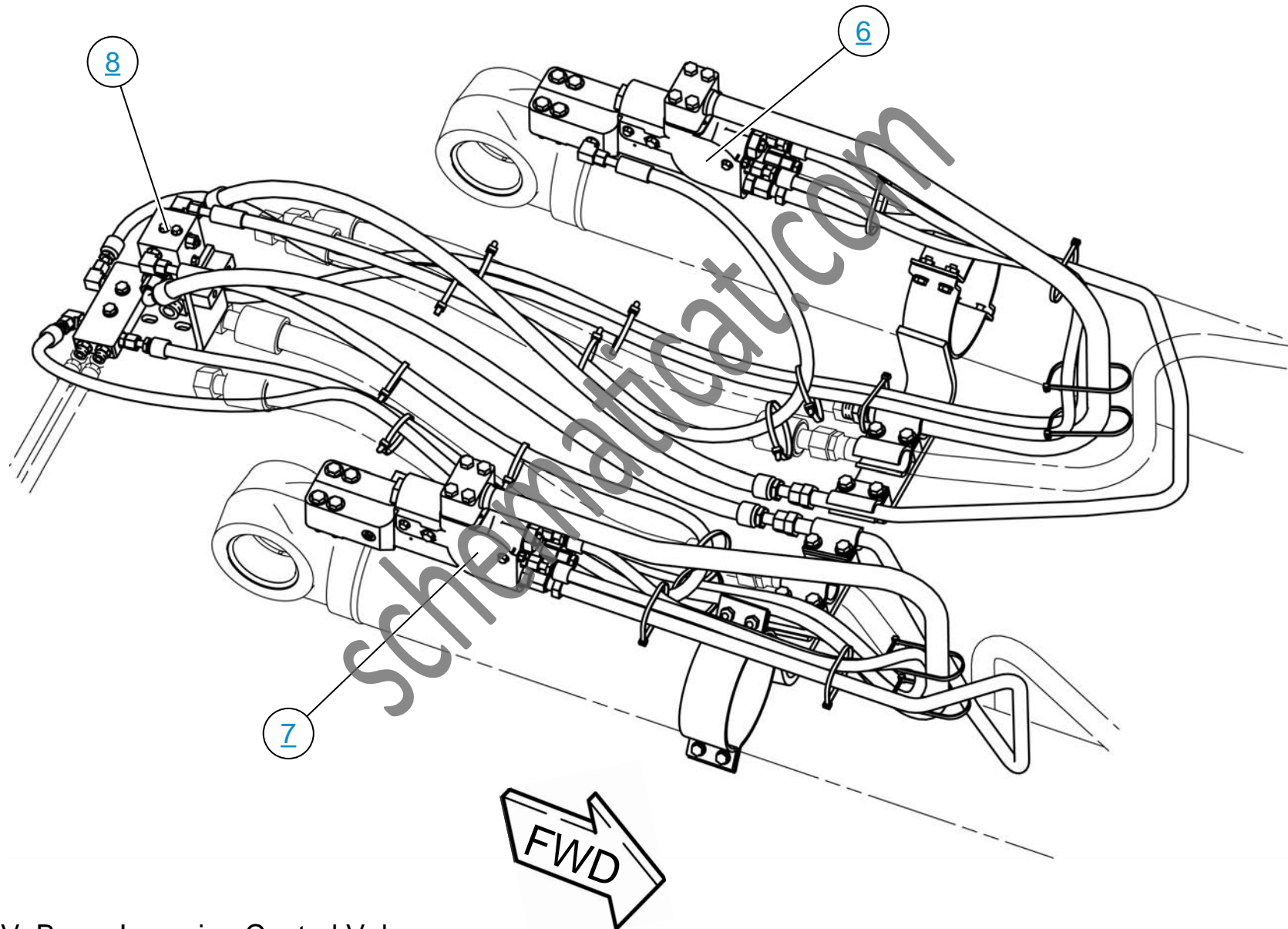






# MOTOR GP - SWING AND SWIVEL

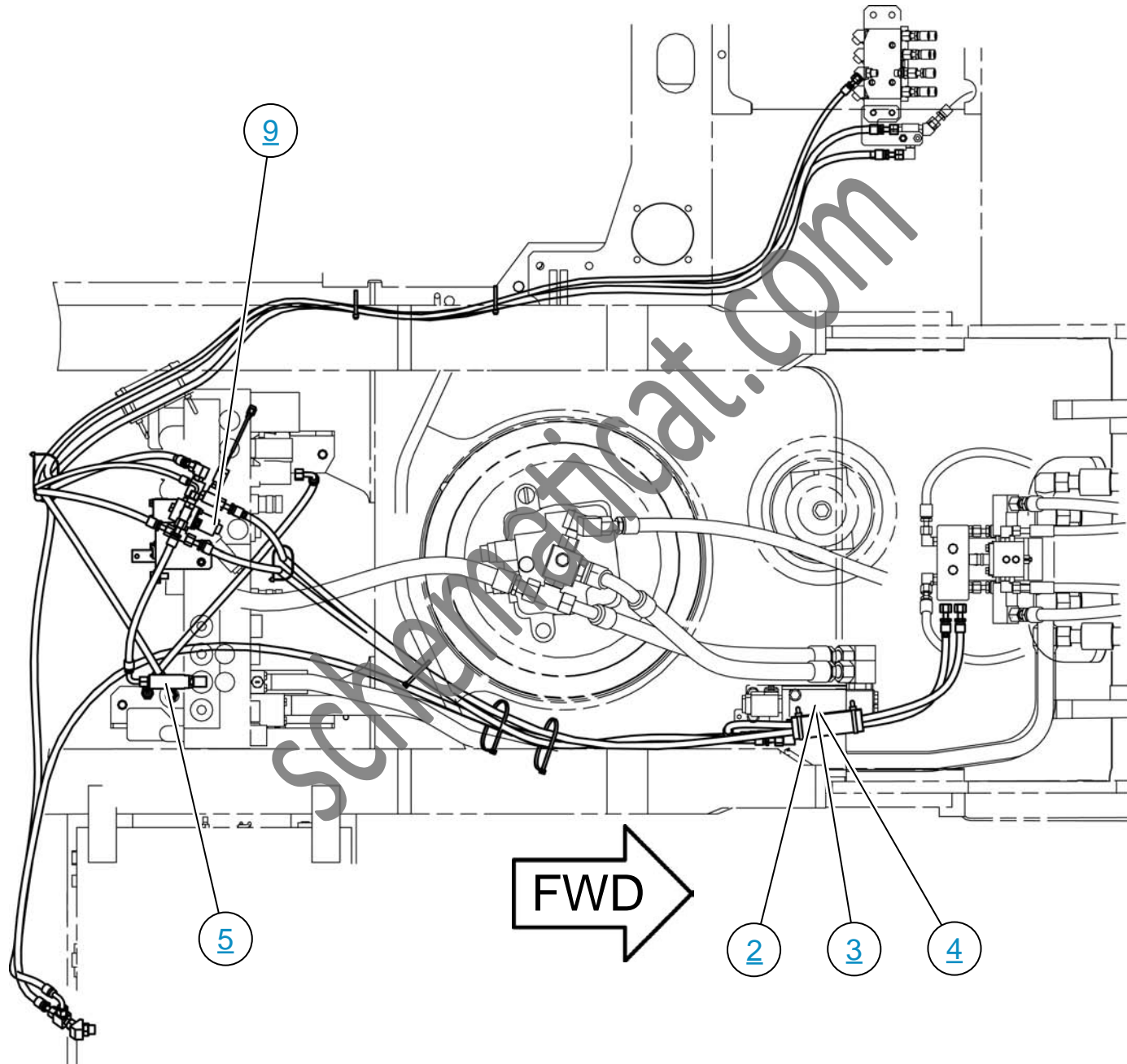




BLCV: Boom Lowering Control Valve



# LINES GP - BOOM FLOAT



# PUMP GP - PISTON (MAIN)

