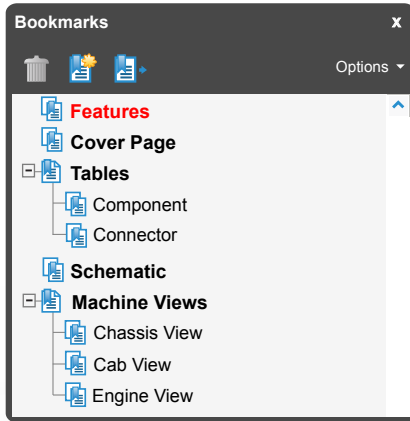


# INTERACTIVE SCHEMATIC



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

***\*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**.

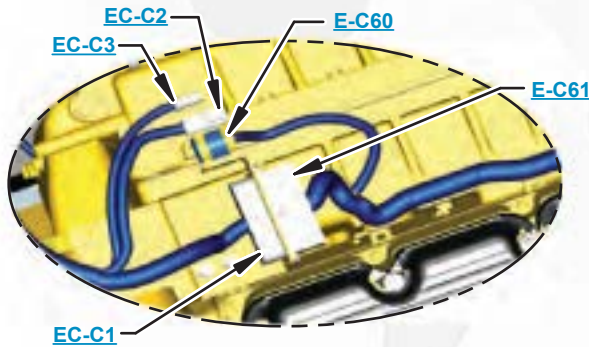
Select **PROPERTIES**.

**CLICK** the **SETTINGS TAB**.

**MOVE THE SLIDER** under **SCREEN RESOLUTION** until it shows **1024 X 768**.

**CLICK OK** to apply the resolution.

*\*Due to different monitor sizes and PDF reader preferences there may be some variance in linked schematic locations*



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



[Click here to save a copy of this interactive schematic to your desktop](#)

**VIEW ALL CALLOUTS**

When only one callout is showing on a machine view, clicking on 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”
	Search	“CTRL” / “SHIFT” / “F”

ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)

[Click here to view the Schematic Symbols and Definitions page](#)



# SCHEMATIC SYMBOLS AND DEFINITIONS



VALVES			
ENVELOPES			
One Position	Two Position	Three Position	
PORTS			
Two-way	Three-Way	Four-Way	
CONTROL			
Normal Position	Shifted Position	Infinite Position	
CHECK			
Basic Symbol	Spring Loaded	Shuttle	Pilot Controlled

INTERNAL PASSAGEWAYS			
Flow in One Direction	Flow Allowed in Either Direction	Parallel Flow	Cross Flow
Infinite Positioning	Two Position	Three Position	

PUMPS	
FIXED DISPLACEMENT	
Unidirectional	Bidirectional
VARIABLE DISPLACEMENT NON-COMPENSATED	
Unidirectional	Bidirectional

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)
Spring	Pressure Compensation
Control Valves	Line Restriction (Variable)
Restriction	Line Restriction (Fixed)
Line Restriction Variable and Pressure Compensated	2-Section Pump
Attachment	Pump: Variable and Pressure Compensated
Hydraulic Energy Triangles	Pneumatic Energy Triangles

CYLINDERS	
Single Acting	Double Acting

ACCUMULATORS	
Spring Loaded	Gas Charged

MOTORS	
FIXED DISPLACEMENT	
Unidirectional	Bidirectional
VARIABLE DISPLACEMENT NON-COMPENSATED	
Unidirectional	Bidirectional

ROTATING SHAFTS	
Unidirectional	Bidirectional

PILOT CONTROL		
RELEASED PRESSURE		
External Return	Internal Return	
REMOTE SUPPLY PRESSURE		
Simplified	Complete	Internal Supply Pressure

COMBINATION CONTROLS						
Solenoid	Solenoid or Manual	Solenoid and Pilot	Solenoid and Pilot or Manual	Servo	Thermal	Detent

LINES	
Crossing	Joining

MEASUREMENT		
Pressure	Temperature	Flow

MANUAL CONTROL					
Push-pull Lever	Manual Shutoff	General Manual	Push Button	Pedal	Spring

FLUID STORAGE RESERVOIRS			
Vented	Pressurized	Return Above Fluid Level	Return Below Fluid Level

HYDRAULIC SYMBOLS - ELECTRICAL							
Transducer (Fluid)	Transducer (Gas / Air)	Generator	Electric Motor	Pressure Switch	Pressure Switch (Adjustable)	Temperature Switch	Electrical Wire

ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC ELECTRICAL COMPONENT SYMBOLS	
	<b>Fuse:</b> A component in an electrical circuit that will open the circuit if too much current flows through it.
	<b>Switch (Normally Open):</b> A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.
	<b>Switch (Normally Closed):</b> A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.
	<b>Ground (Wired):</b> This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.
	<b>Ground (Case):</b> This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.
	<b>Reed Switch:</b> A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.
	<b>Sender:</b> A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.
	<b>Relay (Magnetic Switch):</b> A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.
	<b>Solenoid:</b> A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.
	<b>Magnetic Latch Solenoid:</b> An electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil circuit open at the time the coil latches.

HARNES AND WIRE SYMBOLS	
<b>Wire, Cable, or Harness Assembly Identification:</b> Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).	
<b>Harness Identification Letter(s):</b> (A, B, C, AA, AB, AC, ...)	
<b>Harness Connector Serialization Code:</b> The "C" stands for "Connector" and the number indicates which connector in the harness (C1, C2, C3, ...)	
<b>Harness identification code:</b> This example indicates wire group 325, wire 135 in harness "AG".	
<b>Deutsch connector:</b> Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.	
<b>Sure-Seal connector:</b> Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.	



# Schematic

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## **320 GC Excavator Electrical System**

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BR410001-20000  
ZBT10001-20000  
DKJ10001-20000

**Volume 1 of 3: Cab Wiring and Product Link**

**Volume 2 of 3: Chassis**

**Volume 3 of 3: Engine**

**SAFETY.CAT.COM**

# COMPONENT LOCATION

## Volume 1 of 3 - CAB WIRING AND PRODUCT LINK



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Base As - Fuse	<a href="#">C-5</a>	<a href="#">1</a>	Relay - ATCH Seat Belt	<a href="#">D-3</a>	<a href="#">32</a>
Base As - Joystick Lh	<a href="#">G-2</a>	<a href="#">2</a>	Relay - ATCH Start Aid	<a href="#">D-3</a>	<a href="#">33</a>
Base As - Joystick Rh	<a href="#">F-2</a>	<a href="#">3</a>	Relay - DEF Pump Reversing Valve	<a href="#">C-4</a>	<a href="#">34</a>
Camera - ATCH Front View	<a href="#">J-2</a>	<a href="#">4</a>	Relay - Engine Key	<a href="#">C-3</a>	<a href="#">35</a>
Control - A6N2	<a href="#">H-14</a>	<a href="#">63</a>	Relay - Engine Main Power	<a href="#">C-4</a>	<a href="#">36</a>
Control - BCM	<a href="#">D-16</a>	<a href="#">5</a>	Relay - Main Power	<a href="#">C-3</a>	<a href="#">37</a>
Control Gp - Pedal	<a href="#">I-5</a>	<a href="#">6</a>	Relay - R1 Horn	<a href="#">D-6</a>	<a href="#">38</a>
Control Gp - Pedal Lh (ATCH)	<a href="#">I-5</a>	<a href="#">7</a>	Relay - R10 Auto Lube	<a href="#">D-5</a>	<a href="#">39</a>
Control Gp - Pedal Rh (ATCH)	<a href="#">I-5</a>	<a href="#">8</a>	Relay - R2 AFTM	<a href="#">D-6</a>	<a href="#">40</a>
Controller As - Radial Wiper	<a href="#">D-14</a>	<a href="#">9</a>	Relay - R3 Refuel	<a href="#">D-6</a>	<a href="#">41</a>
Converter - Power (12V 10A )	<a href="#">D-14</a>	<a href="#">10</a>	Relay - R4 Lifting Pump	<a href="#">D-6</a>	<a href="#">42</a>
Diode - Main Relay	<a href="#">C-9</a>	<a href="#">11</a>	Relay - R5 Boom Lamp	<a href="#">D-6</a>	<a href="#">43</a>
Display - CGC (ATCH)	<a href="#">H-4</a>	<a href="#">12</a>	Relay - R6 Chassis Lamp	<a href="#">D-5</a>	<a href="#">44</a>
Fuse As - Keep Alive (30A)	<a href="#">C-6</a>	<a href="#">13</a>	Relay - R7 Lower Washer	<a href="#">D-5</a>	<a href="#">45</a>
Grip As - Lh	<a href="#">G-2</a>	<a href="#">14</a>	Relay - R8 Lower Wiper	<a href="#">D-5</a>	<a href="#">46</a>
Grip As - Lh (ATCH)	<a href="#">G-2</a>	<a href="#">15</a>	Relay - R9 Caution	<a href="#">D-5</a>	<a href="#">47</a>
Grip As - Rh	<a href="#">F-2</a>	<a href="#">16</a>	Resistor - Can (1939) Data Link	<a href="#">I-4</a>	<a href="#">48</a>
Grip As - Rh (ATCH)	<a href="#">F-2</a>	<a href="#">17</a>	Resistor - Machine Can Data Link	<a href="#">I-4</a>	<a href="#">49</a>
HVAC	<a href="#">D-14</a>	<a href="#">18</a>	Sensor - Blade Lever (ATCH)	<a href="#">E-3</a>	<a href="#">50</a>
Key Reader - MSS (ATCH)	<a href="#">G-2</a>	<a href="#">19</a>	Socket - Auxiliary (12V Power )	<a href="#">E-2</a>	<a href="#">51</a>
Module Gp - Display	<a href="#">J-4</a>	<a href="#">20</a>	Socket - Auxiliary 1 (12V Power )	<a href="#">E-14</a>	<a href="#">52</a>
Module Gp - Keypad (Jog Dial)	<a href="#">E-2</a>	<a href="#">21</a>	Switch - 2nd Shutdown	<a href="#">J-6</a>	<a href="#">53</a>
Module Gp - Keypad (Rotary Dial)	<a href="#">E-2</a>	<a href="#">22</a>	Switch - ATCH Beacon	<a href="#">H-2</a>	<a href="#">54</a>
Motor - Lower Wiper	<a href="#">I-5</a>	<a href="#">23</a>	Switch - ATCH Foot	<a href="#">H-5</a>	<a href="#">55</a>
Motor - Parallel Wiper (ATCH)	<a href="#">I-6</a>	<a href="#">24</a>	Switch - ATCH OLWD	<a href="#">H-2</a>	<a href="#">56</a>
Motor - Wiper	<a href="#">E-7</a>	<a href="#">25</a>	Switch - Door Limit	<a href="#">I-12</a>	<a href="#">57</a>
Radio	<a href="#">J-14, I-14</a>	<a href="#">26</a>	Switch - Neutral Start Limit	<a href="#">G-2</a>	<a href="#">58</a>
Receptacle As - Connector (USB/AUX/MIC)	<a href="#">E-2</a>	<a href="#">27</a>	Switch - QCPLR ATCH	<a href="#">H-2</a>	<a href="#">59</a>
Relay - ATCH Keep Alive	<a href="#">C-3</a>	<a href="#">28</a>	Switch - Start	<a href="#">E-2</a>	<a href="#">60</a>
Relay - ATCH Keep Alive 2	<a href="#">C-3</a>	<a href="#">29</a>	Switch - Upper Window Limit	<a href="#">C-9</a>	<a href="#">61</a>
Relay - ATCH Lifting Pump (C9)	<a href="#">D-3</a>	<a href="#">30</a>	Switch As - Travel Alarm Cancel	<a href="#">D-2</a>	<a href="#">62</a>
Relay - ATCH Priming Pump (C13)	<a href="#">C-4</a>	<a href="#">31</a>			

# COMPONENT LOCATION

## Volume 2 of 3 - CHASSIS



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - ATCH Travel	<a href="#">B-16</a>	<a href="#">71</a>	Sensor - Hyd Oil Temperature	<a href="#">B-16</a>	<a href="#">117</a>
Alternator	<a href="#">I-15</a>	<a href="#">72</a>	Sensor - Pump 1 Pressure.	<a href="#">B-9</a>	<a href="#">118</a>
Battery - LH	<a href="#">I-10</a>	<a href="#">73</a>	Sensor - Pump 2 Pressure.	<a href="#">B-9</a>	<a href="#">119</a>
Battery - RH	<a href="#">I-10</a>	<a href="#">74</a>	Sensor - Stick Cyl Head Pressure.	<a href="#">C-9</a>	<a href="#">120</a>
Block As - Fuse	<a href="#">I-9</a>	<a href="#">75</a>	Sensor - Swing Angle	<a href="#">C-8</a>	<a href="#">121</a>
Camera Gp - Rear View	<a href="#">I-3</a>	<a href="#">76</a>	Sensor Gp - Pressure (After Secondary Fuel Filter)	<a href="#">C-16</a>	<a href="#">122</a>
Camera Gp - Right Side View	<a href="#">I-3</a>	<a href="#">77</a>	Sensor Gp - Pressure (Before Secondary Fuel Filter)	<a href="#">C-16</a>	<a href="#">123</a>
Control Gp - Engine (A4E2 )	<a href="#">I-16</a>	<a href="#">78</a>	Sensor Gp - Pressure (Fuel Priming Pump)	<a href="#">C-16</a>	<a href="#">124</a>
Control Gp - Primary (B5M5)	<a href="#">I-8</a>	<a href="#">79</a>	Solenoid - A/C Compr Clutch	<a href="#">I-15</a>	<a href="#">125</a>
Control Gp - Secondary (B5M5)	<a href="#">D-6</a>	<a href="#">80</a>	Solenoid - ATCH Stem 2 Extend EPRV	<a href="#">G-9</a>	<a href="#">126</a>
Fan As - Axial	<a href="#">I-12</a>	<a href="#">81</a>	Solenoid - ATCH Stem 2 Retract EPRV	<a href="#">F-9</a>	<a href="#">127</a>
Glow Plug	<a href="#">I-16</a>	<a href="#">82</a>	Solenoid - ATCH Variable Relief 1	<a href="#">F-8</a>	<a href="#">128</a>
Ground - Chassis - 1	<a href="#">D-13</a>	<a href="#">83</a>	Solenoid - ATCH Variable Relief 2	<a href="#">F-8</a>	<a href="#">129</a>
Ground - Chassis - 2	<a href="#">D-13</a>	<a href="#">84</a>	Solenoid - EH Boom 2 Up	<a href="#">D-9</a>	<a href="#">130</a>
Ground - Chassis - 3	<a href="#">D-13</a>	<a href="#">85</a>	Solenoid - EH Boom Down	<a href="#">E-9</a>	<a href="#">131</a>
Ground - Chassis - 4	<a href="#">D-14</a>	<a href="#">86</a>	Solenoid - EH Boom Up	<a href="#">C-9</a>	<a href="#">132</a>
Ground - Chassis - 5	<a href="#">D-14</a>	<a href="#">87</a>	Solenoid - EH Bucket Curl	<a href="#">E-9</a>	<a href="#">133</a>
Ground - Chassis - 6	<a href="#">H-15</a>	<a href="#">88</a>	Solenoid - EH Bucket Un-curl	<a href="#">C-9</a>	<a href="#">134</a>
Ground - Chassis - 7	<a href="#">I-15</a>	<a href="#">89</a>	Solenoid - EH Stick In	<a href="#">B-9</a>	<a href="#">135</a>
Ground - Chassis - 8	<a href="#">H-12</a>	<a href="#">90</a>	Solenoid - EH Stick Out	<a href="#">D-9</a>	<a href="#">136</a>
Ground - Chassis - 9	<a href="#">I-9</a>	<a href="#">91</a>	Solenoid - EH Swing Left	<a href="#">D-9</a>	<a href="#">137</a>
Ground - Fuel Level Sender	<a href="#">A-14</a>	<a href="#">92</a>	Solenoid - EH Swing Right	<a href="#">C-9</a>	<a href="#">138</a>
Horn - High Tone	<a href="#">D-8</a>	<a href="#">93</a>	Solenoid - EH Travel Left Fwd	<a href="#">C-9</a>	<a href="#">139</a>
Horn - Low Tone	<a href="#">D-8</a>	<a href="#">94</a>	Solenoid - EH Travel Left Rvs	<a href="#">D-9</a>	<a href="#">140</a>
Motor - ATCH Lower Washer	<a href="#">G-10</a>	<a href="#">95</a>	Solenoid - EH Travel Right Fwd	<a href="#">C-9</a>	<a href="#">141</a>
Motor - Starter	<a href="#">H-15</a>	<a href="#">96</a>	Solenoid - EH Travel Right Rvs	<a href="#">E-9</a>	<a href="#">142</a>
Motor - Washer	<a href="#">G-10</a>	<a href="#">97</a>	Solenoid - Hyd Lock	<a href="#">B-9</a>	<a href="#">143</a>
Pump - ATCH Refueling	<a href="#">B-11</a>	<a href="#">98</a>	Solenoid - QCPLR Bypass Cut	<a href="#">F-9</a>	<a href="#">144</a>
Pump - Fuel Lifting	<a href="#">D-16</a>	<a href="#">99</a>	Solenoid - QCPLR Lock Unlock 2	<a href="#">F-9</a>	<a href="#">145</a>
Pump Gp	<a href="#">C-16</a>	<a href="#">100</a>	Solenoid - QCPLR Lock Unlock 1	<a href="#">F-9</a>	<a href="#">146</a>
Relay - Glow	<a href="#">I-9</a>	<a href="#">101</a>	Solenoid - Stem 1 Extend Eprv	<a href="#">G-9</a>	<a href="#">147</a>
Resistor - CAN (J1939 For CGC) Data Link	<a href="#">I-6</a>	<a href="#">102</a>	Solenoid - Stem 1 Retract Eprv	<a href="#">F-9</a>	<a href="#">148</a>
Resistor - CAN (J1939) Data Link	<a href="#">H-13</a>	<a href="#">103</a>	Solenoid - Stem 3 Extend Eprv	<a href="#">F-8</a>	<a href="#">149</a>
Resistor - CAN For Data Sharing Network	<a href="#">B-5</a>	<a href="#">104</a>	Solenoid - Stem 3 Retract Eprv	<a href="#">F-8</a>	<a href="#">150</a>
Resistor - CAN For Data Sharing Network	<a href="#">B-5</a>	<a href="#">105</a>	Solenoid - Stick 2 EH Valve	<a href="#">C-9</a>	<a href="#">151</a>
Resistor - Machine CAN Data Link	<a href="#">I-6</a>	<a href="#">106</a>	Solenoid - Stick Unload	<a href="#">B-9</a>	<a href="#">152</a>
Resistor - Roto Tilt CAN Data Link	<a href="#">B-5</a>	<a href="#">107</a>	Solenoid - Straight Travel	<a href="#">D-9</a>	<a href="#">153</a>
Sender - Fuel Level	<a href="#">B-14</a>	<a href="#">108</a>	Solenoid - Swing Brake	<a href="#">D-9</a>	<a href="#">154</a>
Sensor - Air Inlet Temperature	<a href="#">G-9</a>	<a href="#">109</a>	Solenoid - Swing Priority	<a href="#">B-9</a>	<a href="#">155</a>
Sensor - ATCH Squeeze Head Pressure	<a href="#">E-8</a>	<a href="#">110</a>	Solenoid - Travel Speed	<a href="#">D-9</a>	<a href="#">156</a>
Sensor - ATCH Squeeze Rod Pressure	<a href="#">E-8</a>	<a href="#">111</a>	Switch - Air Filter Restriction	<a href="#">G-9</a>	<a href="#">157</a>
Sensor - Boom Cyl Head Pressure.	<a href="#">E-8</a>	<a href="#">112</a>	Switch - ATCH Hammer Return Filter	<a href="#">F-8</a>	<a href="#">158</a>
Sensor - Boom Cyl Rod Pressure.	<a href="#">D-8</a>	<a href="#">113</a>	Switch - ATCH Refueling	<a href="#">B-11</a>	<a href="#">159</a>
Sensor - Bucket Cyl Head Pressure.	<a href="#">E-9</a>	<a href="#">114</a>	Switch - Disconnect	<a href="#">I-9</a>	<a href="#">160</a>
Sensor - Bucket Cyl Rod Pressure.	<a href="#">E-9</a>	<a href="#">115</a>	Switch - Hyd Oil Filter	<a href="#">B-16</a>	<a href="#">161</a>
Sensor - Fuel Temperature	<a href="#">C-16</a>	<a href="#">116</a>	Switch - Water In Fuel	<a href="#">C-15</a>	<a href="#">162</a>

# COMPONENT LOCATION

## Volume 3 of 3 - ENGINE



Component	Schematic Location	Machine Location
Control - Engine	<a href="#">F-5</a>	<a href="#">200</a>
Sensor - Cam Speed	<a href="#">D-1</a>	<a href="#">201</a>
Sensor - Crank Speed	<a href="#">D-1</a>	<a href="#">202</a>
Sensor - Engine Coolant Temperature	<a href="#">C-1</a>	<a href="#">203</a>
Sensor - Engine Intake Manifold Pressure	<a href="#">D-3</a>	<a href="#">204</a>
Sensor - Engine Intake Manifold Temperature	<a href="#">C-1</a>	<a href="#">205</a>
Sensor - Fuel Pressure	<a href="#">E-3</a>	<a href="#">206</a>
Sensor - Oil Pressure	<a href="#">D-3</a>	<a href="#">207</a>
Solenoid - Fuel Pump	<a href="#">E-3</a>	<a href="#">208</a>

# CONNECTOR LOCATION

## Volume 1 of 3 - CAB WIRING AND PRODUCT LINK



Connector Number	Schematic Location
<a href="#">CONN 1</a>	<a href="#">I-13</a>
<a href="#">CONN 2</a>	<a href="#">I-13</a>
<a href="#">CONN 3</a>	<a href="#">I-13</a>
<a href="#">CONN 4</a>	<a href="#">I-13</a>
<a href="#">CONN 5</a>	<a href="#">I-13</a>
<a href="#">CONN 6</a>	<a href="#">H-13</a>
<a href="#">CONN 7</a>	<a href="#">G-13</a>
<a href="#">CONN 8</a>	<a href="#">F-13</a>
<a href="#">CONN 9</a>	<a href="#">E-13</a>
<a href="#">CONN 10</a>	<a href="#">E-13</a>
<a href="#">CONN 11</a>	<a href="#">E-14</a>
<a href="#">CONN 12 (To Service Port)</a>	<a href="#">C-14</a>
<a href="#">CONN 13</a>	<a href="#">J-12</a>
<a href="#">CONN 14</a>	<a href="#">I-12</a>
<a href="#">CONN 15</a>	<a href="#">I-9</a>
<a href="#">CONN 16</a>	<a href="#">J-8</a>
<a href="#">CONN 17</a>	<a href="#">I-8</a>
<a href="#">CONN 18</a>	<a href="#">I-8</a>
<a href="#">CONN 19</a>	<a href="#">H-8</a>
<a href="#">CONN 20</a>	<a href="#">G-7</a>
<a href="#">CONN 21</a>	<a href="#">G-7</a>
<a href="#">CONN 22</a>	<a href="#">F-7</a>
<a href="#">CONN 23</a>	<a href="#">F-7</a>
<a href="#">CONN 24</a>	<a href="#">H-6</a>
<a href="#">CONN 25</a>	<a href="#">H-5</a>
<a href="#">CONN 26</a>	<a href="#">G-4</a>
<a href="#">CONN 27</a>	<a href="#">G-4</a>
<a href="#">CONN 28</a>	<a href="#">F-4</a>
<a href="#">CONN 29</a>	<a href="#">E-4</a>
<a href="#">CONN 30</a>	<a href="#">E-4</a>
<a href="#">CONN 31</a>	<a href="#">E-4</a>
<a href="#">CONN 32</a>	<a href="#">E-4</a>
<a href="#">CONN 33</a>	<a href="#">J-3</a>
<a href="#">CONN 34</a>	<a href="#">J-3</a>
<a href="#">CONN 35</a>	<a href="#">J-2</a>
<a href="#">CONN 36</a>	<a href="#">J-2</a>
<a href="#">CONN 37</a>	<a href="#">H-2</a>
<a href="#">CONN 38</a>	<a href="#">J-16.H-16</a>
<a href="#">CONN 39</a>	<a href="#">I-16.H-16</a>
<a href="#">CONN 40</a>	<a href="#">H-16</a>
<a href="#">CONN 41</a>	<a href="#">G-16</a>
<a href="#">CONN 80</a>	<a href="#">H-6</a>

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

# CONNECTOR LOCATION

## Volume 2 of 3 - CHASSIS



Connector Number	Schematic Location	Connector Number	Schematic Location
<a href="#">CONN 2</a>	<a href="#">I-1</a>	<a href="#">CONN 59</a>	<a href="#">E-11</a>
<a href="#">CONN 3</a>	<a href="#">I-1</a>	<a href="#">CONN 60</a>	<a href="#">F-11</a>
<a href="#">CONN 4</a>	<a href="#">I-1</a>	<a href="#">CONN 61</a>	<a href="#">F-11</a>
<a href="#">CONN 5</a>	<a href="#">I-1</a>	<a href="#">CONN 62</a>	<a href="#">G-11, E-8</a>
<a href="#">CONN 6</a>	<a href="#">H-2</a>	<a href="#">CONN 63</a>	<a href="#">H-11</a>
<a href="#">CONN 7</a>	<a href="#">G-2</a>	<a href="#">CONN 64</a>	<a href="#">H-11</a>
<a href="#">CONN 8</a>	<a href="#">F-2</a>	<a href="#">CONN 65</a>	<a href="#">G-10</a>
<a href="#">CONN 9</a>	<a href="#">E-2</a>	<a href="#">CONN 66</a>	<a href="#">H-9</a>
<a href="#">CONN 10</a>	<a href="#">E-2</a>	<a href="#">CONN 67</a>	<a href="#">B-8</a>
<a href="#">CONN 11</a>	<a href="#">F-2</a>	<a href="#">CONN 68</a>	<a href="#">B-8</a>
<a href="#">CONN 38</a>	<a href="#">E-4</a>	<a href="#">CONN 69</a>	<a href="#">C-8</a>
<a href="#">CONN 39</a>	<a href="#">E-5</a>	<a href="#">CONN 70</a>	<a href="#">C-8</a>
<a href="#">CONN 45</a>	<a href="#">H-15</a>	<a href="#">CONN 71</a>	<a href="#">C-8</a>
<a href="#">CONN 46</a>	<a href="#">G-15</a>	<a href="#">CONN 72</a>	<a href="#">D-8</a>
<a href="#">CONN 47</a>	<a href="#">G-15</a>	CONN 73 (Not Shown)	<a href="#">D-8</a>
<a href="#">CONN 48</a>	<a href="#">C-15</a>	<a href="#">CONN 74</a>	<a href="#">G-7</a>
<a href="#">CONN 49</a>	<a href="#">I-14</a>	<a href="#">CONN 75</a>	<a href="#">G-7</a>
<a href="#">CONN 50</a>	<a href="#">B-12</a>	<a href="#">CONN 77</a>	<a href="#">D-5, F-5, F-7</a>
<a href="#">CONN 51</a>	<a href="#">B-12</a>	<a href="#">CONN 78</a>	<a href="#">D-5, F-5</a>
<a href="#">CONN 52</a>	<a href="#">I-12</a>	<a href="#">CONN 79</a>	<a href="#">I-2</a>
<a href="#">CONN 53</a>	<a href="#">I-11</a>	<a href="#">CONN 80</a>	<a href="#">I-2</a>
<a href="#">CONN 54</a>	<a href="#">D-11</a>	<a href="#">CONN 81</a>	<a href="#">I-2</a>
<a href="#">CONN 55</a>	<a href="#">D-11</a>	<a href="#">CONN 82</a>	<a href="#">B-9</a>
<a href="#">CONN 56</a>	<a href="#">D-11</a>	<a href="#">CONN 83</a>	<a href="#">H-10</a>
<a href="#">CONN 57</a>	<a href="#">E-11</a>	<a href="#">CONN 84</a>	<a href="#">I-10</a>
<a href="#">CONN 58</a>	<a href="#">E-11</a>		

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.



# CONNECTOR LOCATION

## Volume 3 of 3 - ENGINE



<b>Connector Number</b>	<b>Schematic Location</b>
<a href="#"><u>CONN 91</u></a>	<a href="#"><u>F-3</u></a>
<a href="#"><u>CONN 92</u></a>	<a href="#"><u>E-3</u></a>

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

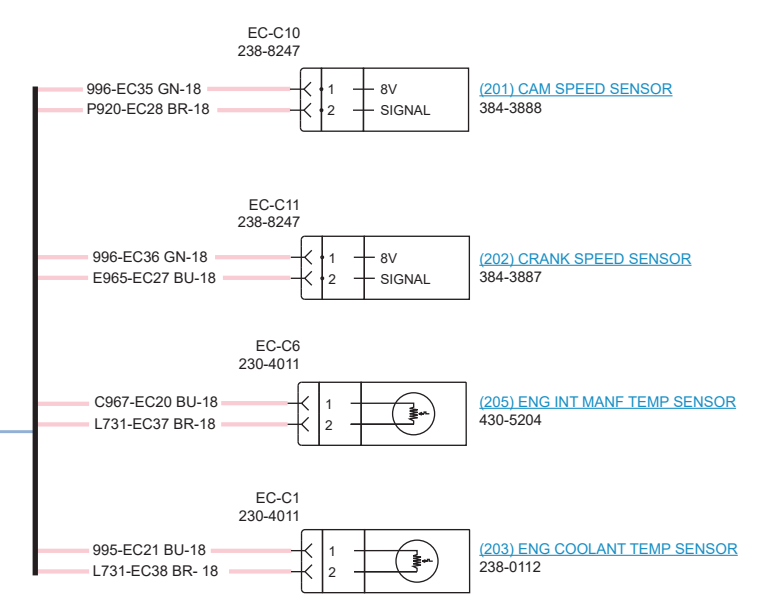
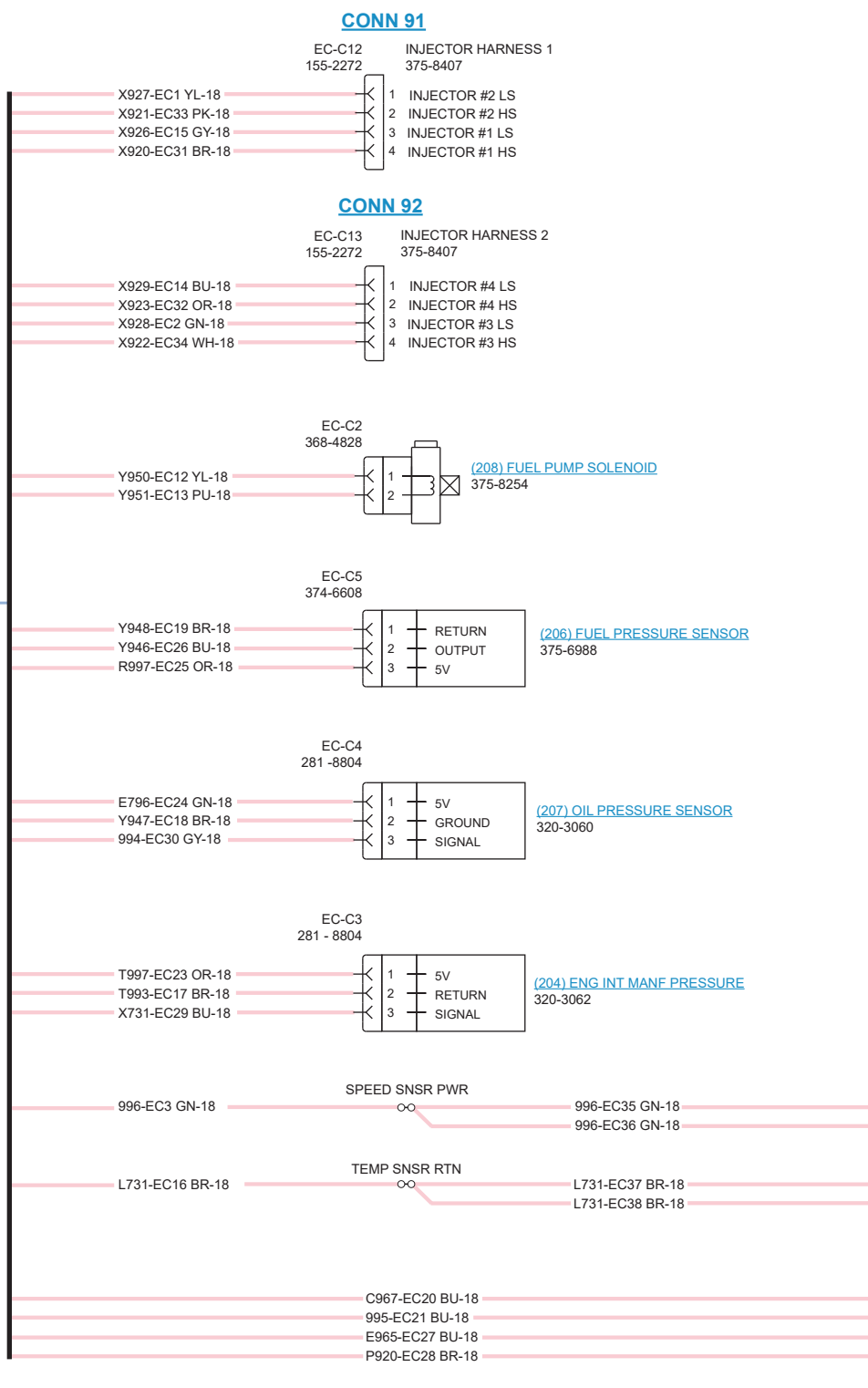
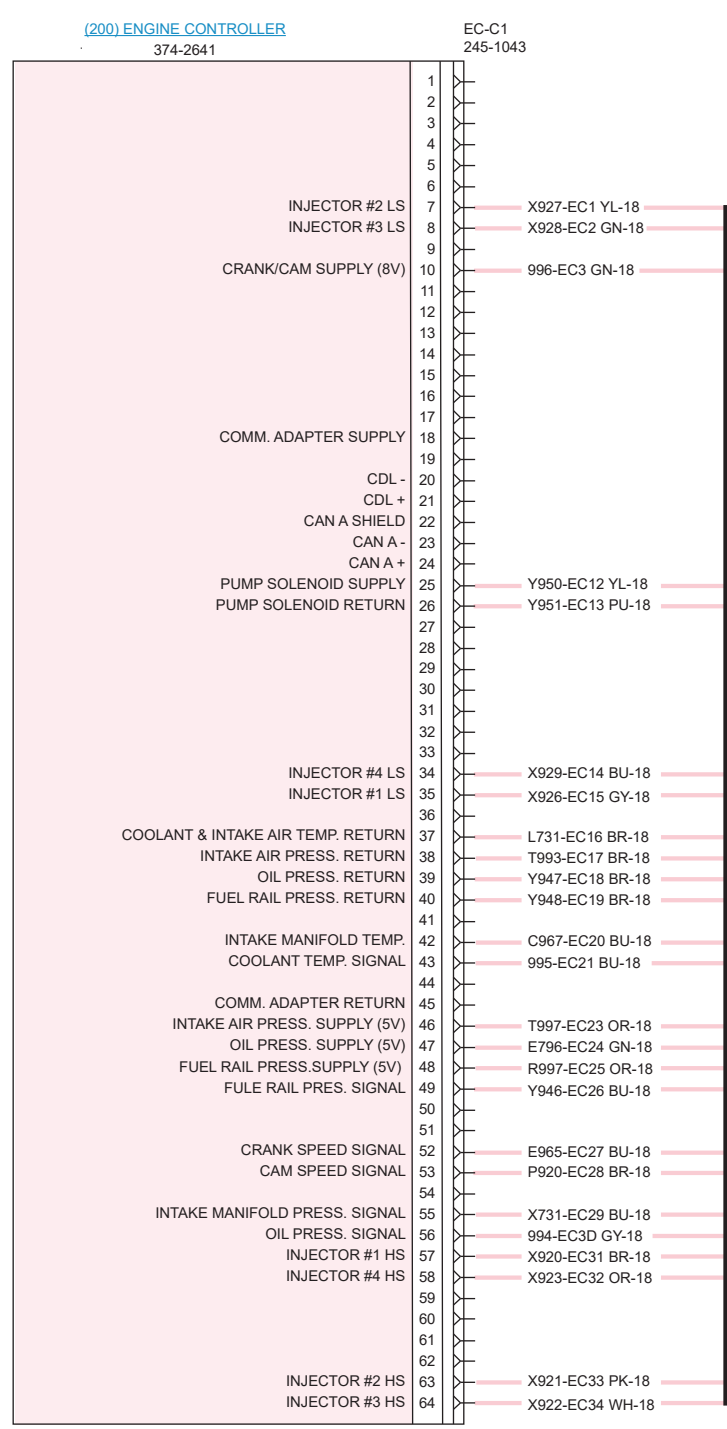
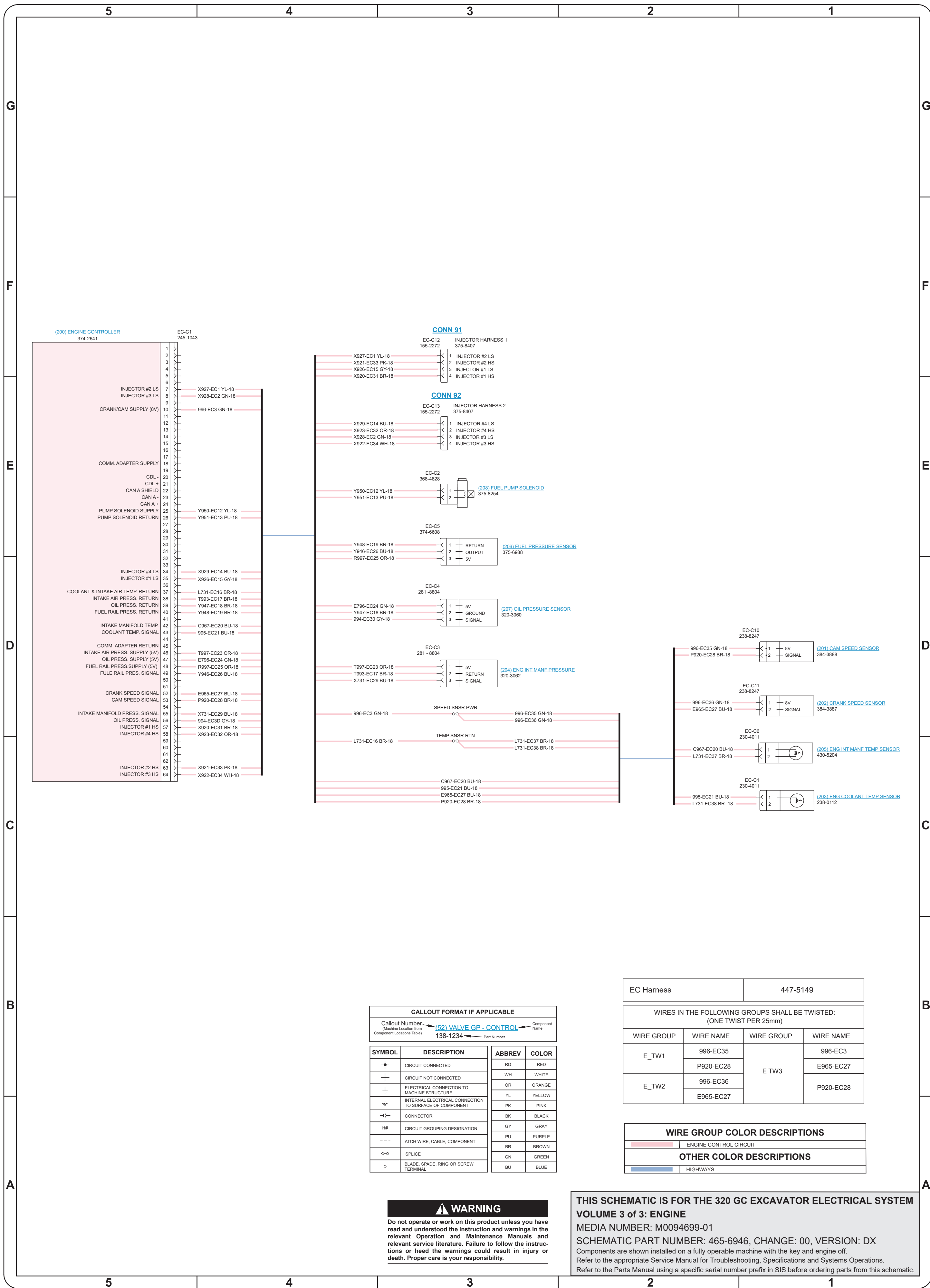












**CALLOUT FORMAT IF APPLICABLE**

Callout Number (Machine Location from Component Location Table) → (52) VALVE GP - CONTROL ← Component Name

138-1234 ← Part Number

SYMBOL	DESCRIPTION	ABBREV	COLOR
+	CIRCUIT CONNECTED	RD	RED
-	CIRCUIT NOT CONNECTED	WH	WHITE
+	ELECTRICAL CONNECTION TO MACHINE STRUCTURE	OR	ORANGE
+	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT	YL	YELLOW
→	CONNECTOR	PK	PINK
→		BK	BLACK
H#	CIRCUIT GROUPING DESIGNATION	GY	GRAY
---	ATCH WIRE, CABLE, COMPONENT	PU	PURPLE
o-o	SPLICE	BR	BROWN
o	BLADE, SPADE, RING OR SCREW TERMINAL	GN	GREEN
o		BU	BLUE

EC Harness	447-5149
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WIRES IN THE FOLLOWING GROUPS SHALL BE TWISTED:  
(ONE TWIST PER 25mm)

WIRE GROUP	WIRE NAME	WIRE GROUP	WIRE NAME
E_TW1	996-EC35	E_TW3	996-EC3
	P920-EC28		E965-EC27
E_TW2	996-EC36		P920-EC28
	E965-EC27		

**WIRE GROUP COLOR DESCRIPTIONS**

ENGINE CONTROL CIRCUIT
------------------------

**OTHER COLOR DESCRIPTIONS**

HIGHWAYS
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**WARNING**

Do not operate or work on this product unless you have read and understood the instruction and warnings in the relevant Operation and Maintenance Manuals and relevant service literature. Failure to follow the instructions or heed the warnings could result in injury or death. Proper care is your responsibility.

**THIS SCHEMATIC IS FOR THE 320 GC EXCAVATOR ELECTRICAL SYSTEM**

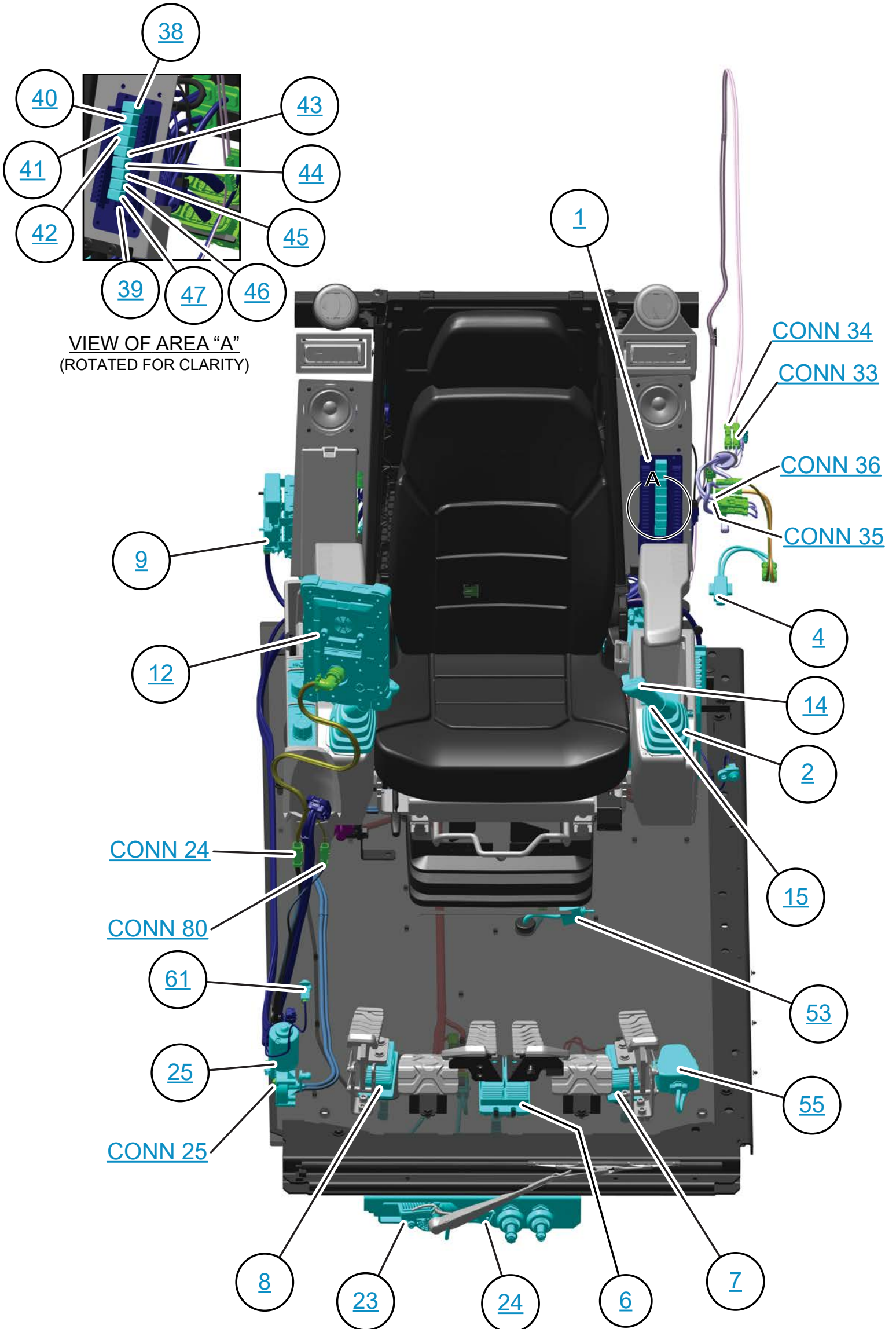
**VOLUME 3 of 3: ENGINE**

MEDIA NUMBER: M0094699-01

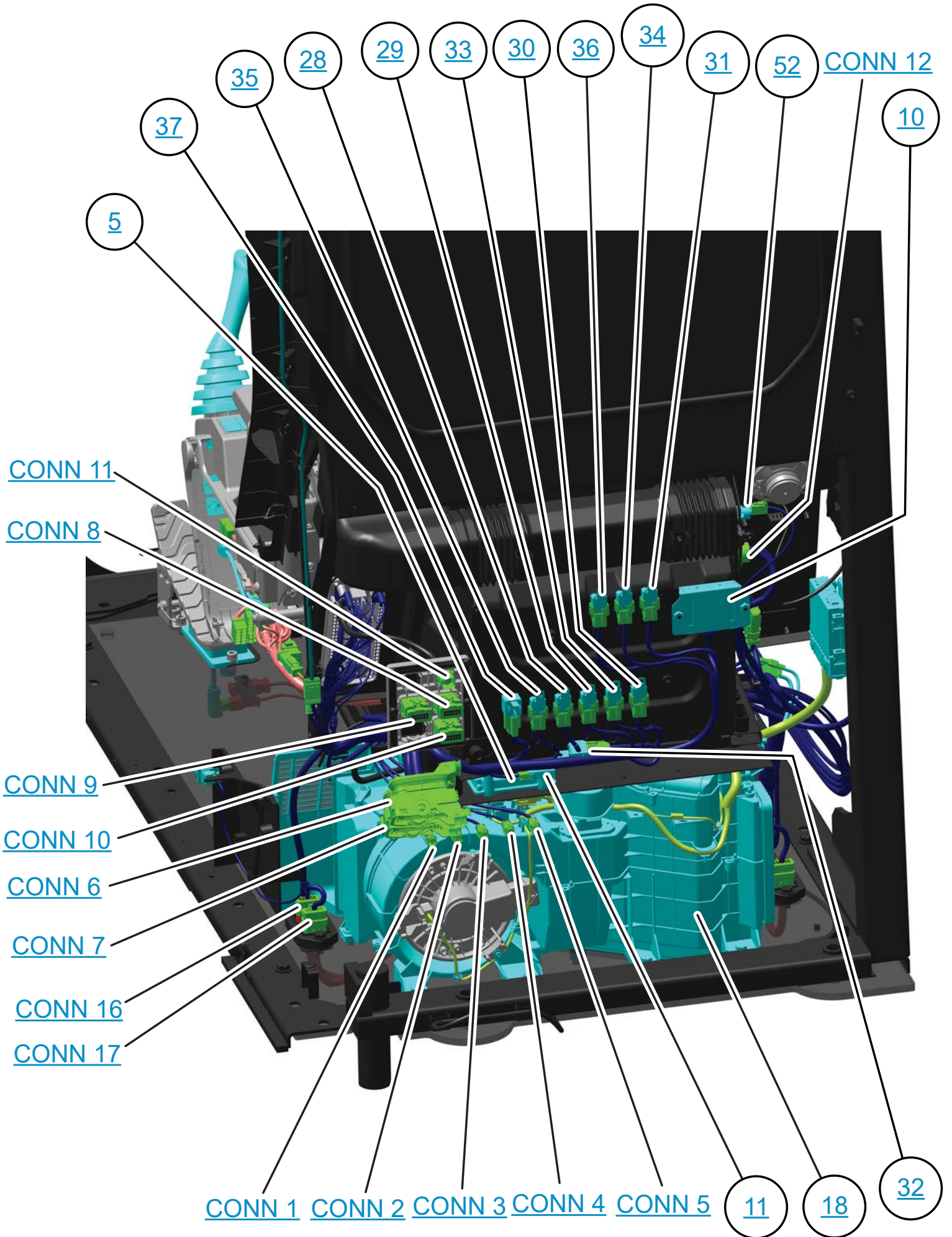
SCHEMATIC PART NUMBER: 465-6946, CHANGE: 00, VERSION: DX

Components are shown installed on a fully operable machine with the key and engine off. 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.

# CAB FRONT VIEW

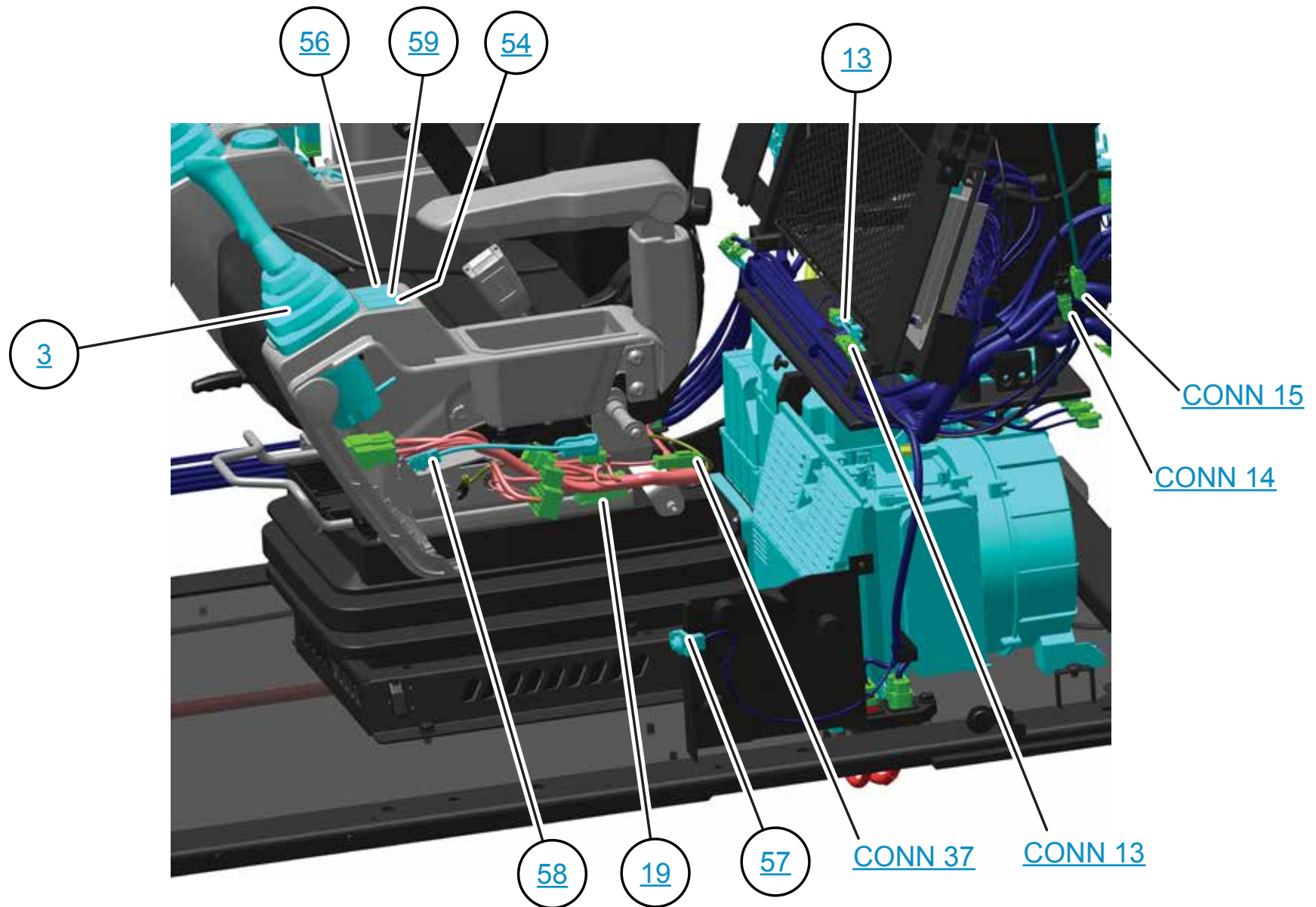


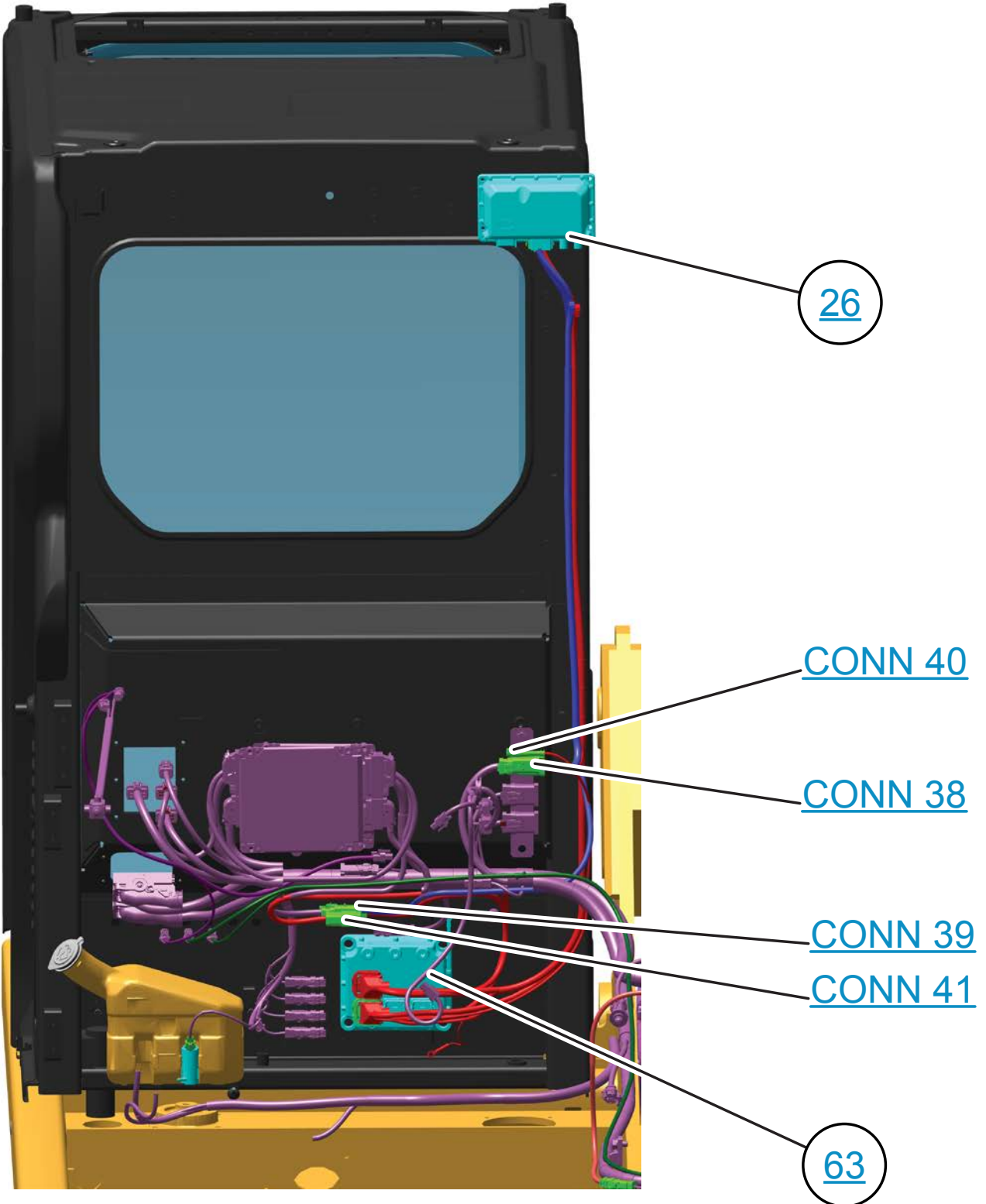
# CAB REAR VIEW





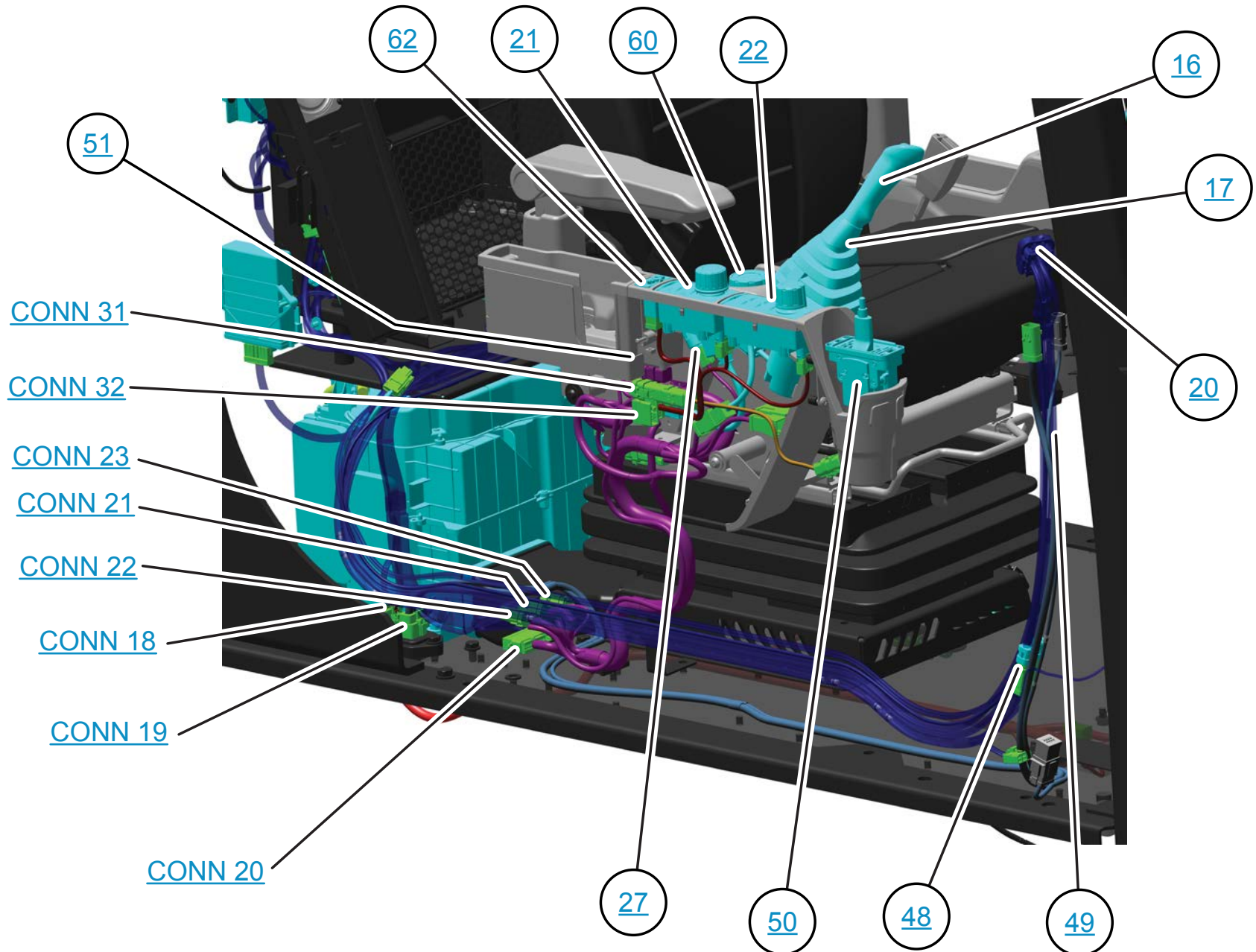
# LEFT HAND CONSOLE







# RIGHT HAND CONSOLE



# SEAT REAR VIEW



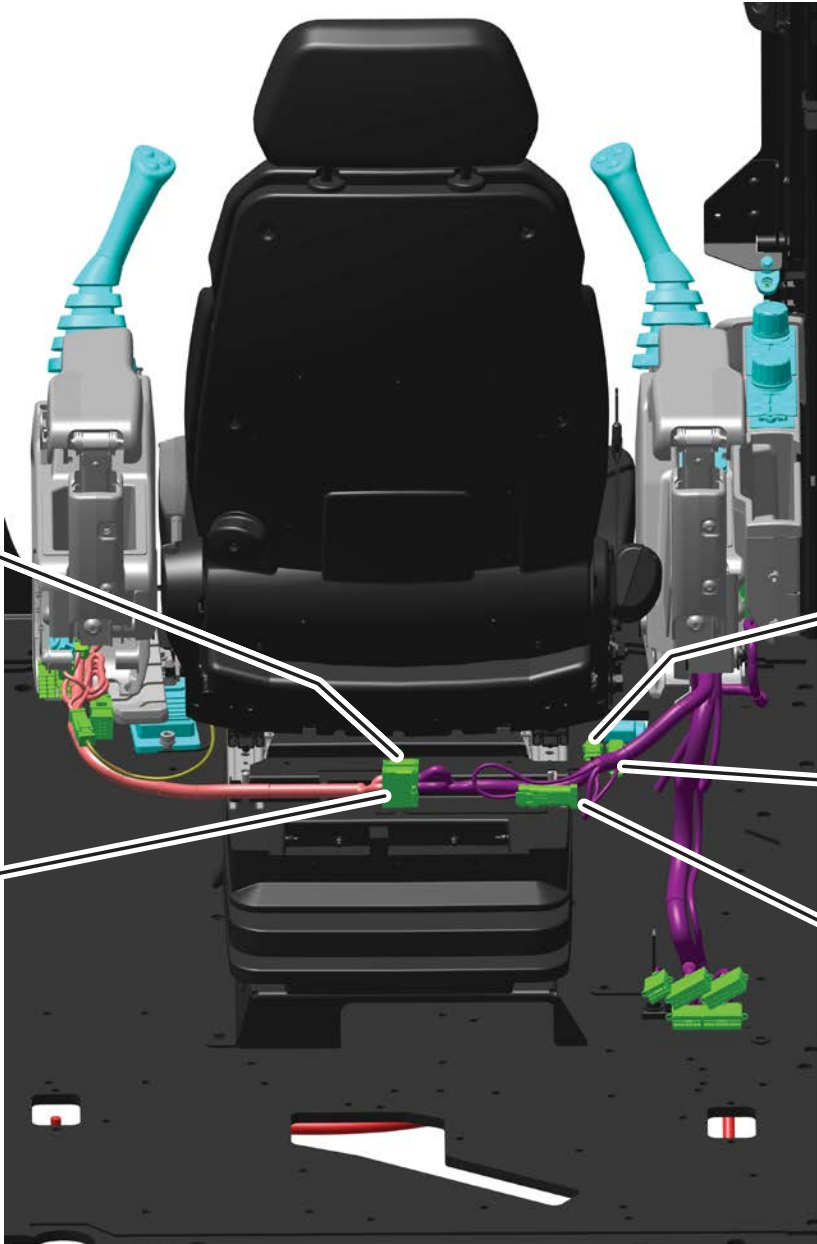
CONN 27

CONN 28

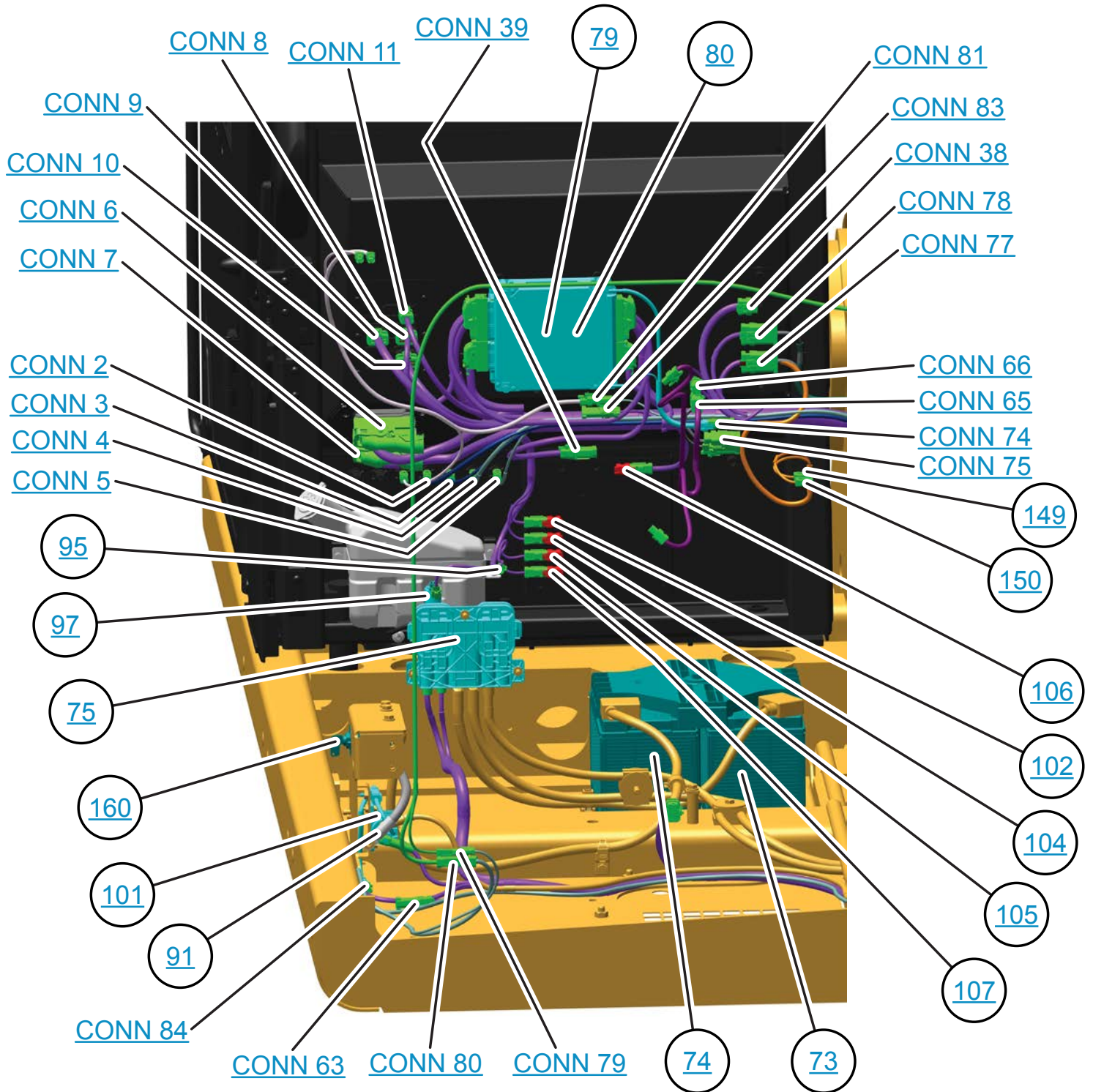
CONN 26

CONN 29

CONN 30

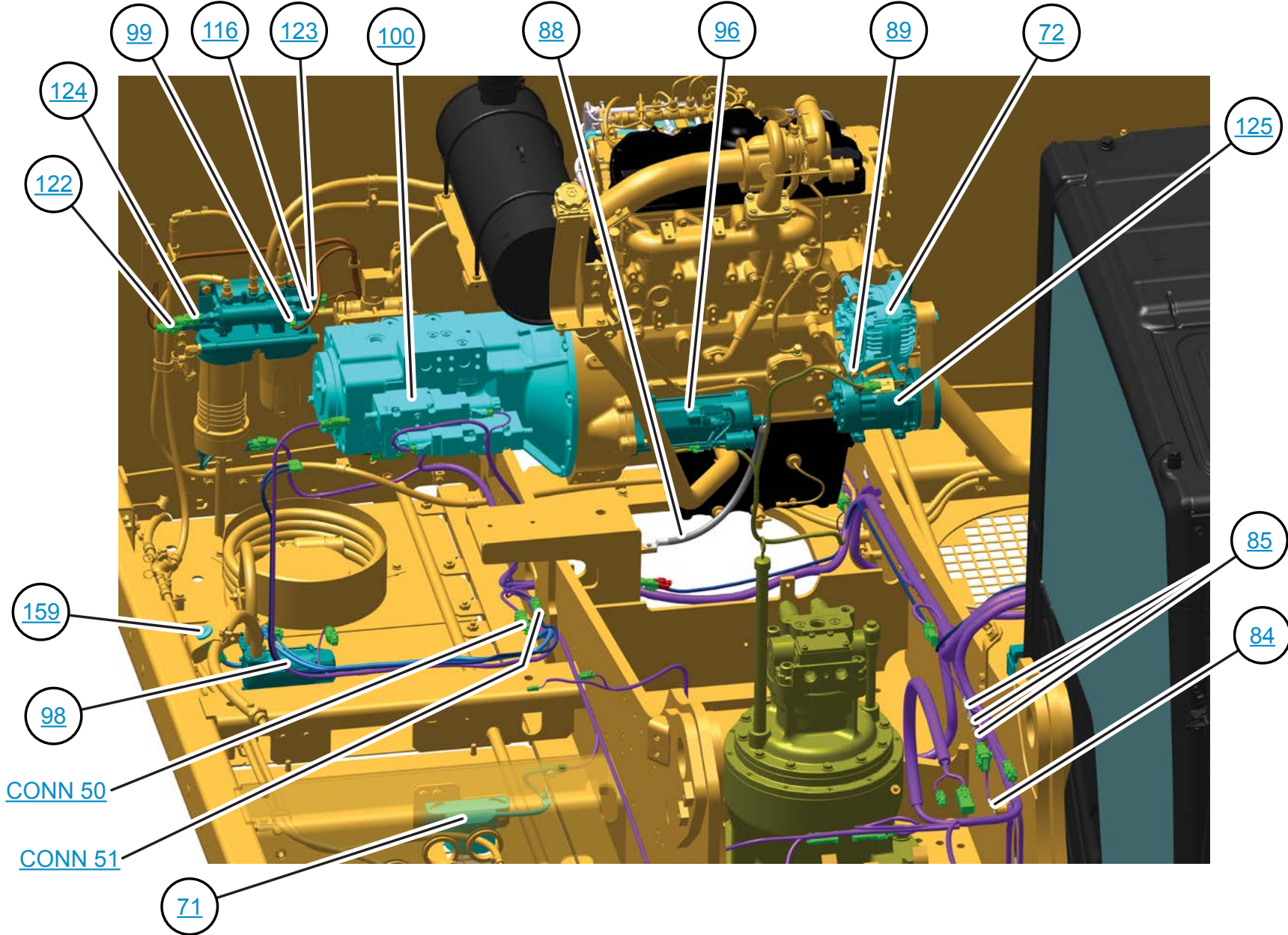


# BEHIND CAB - BATTERY COMPARTMENT

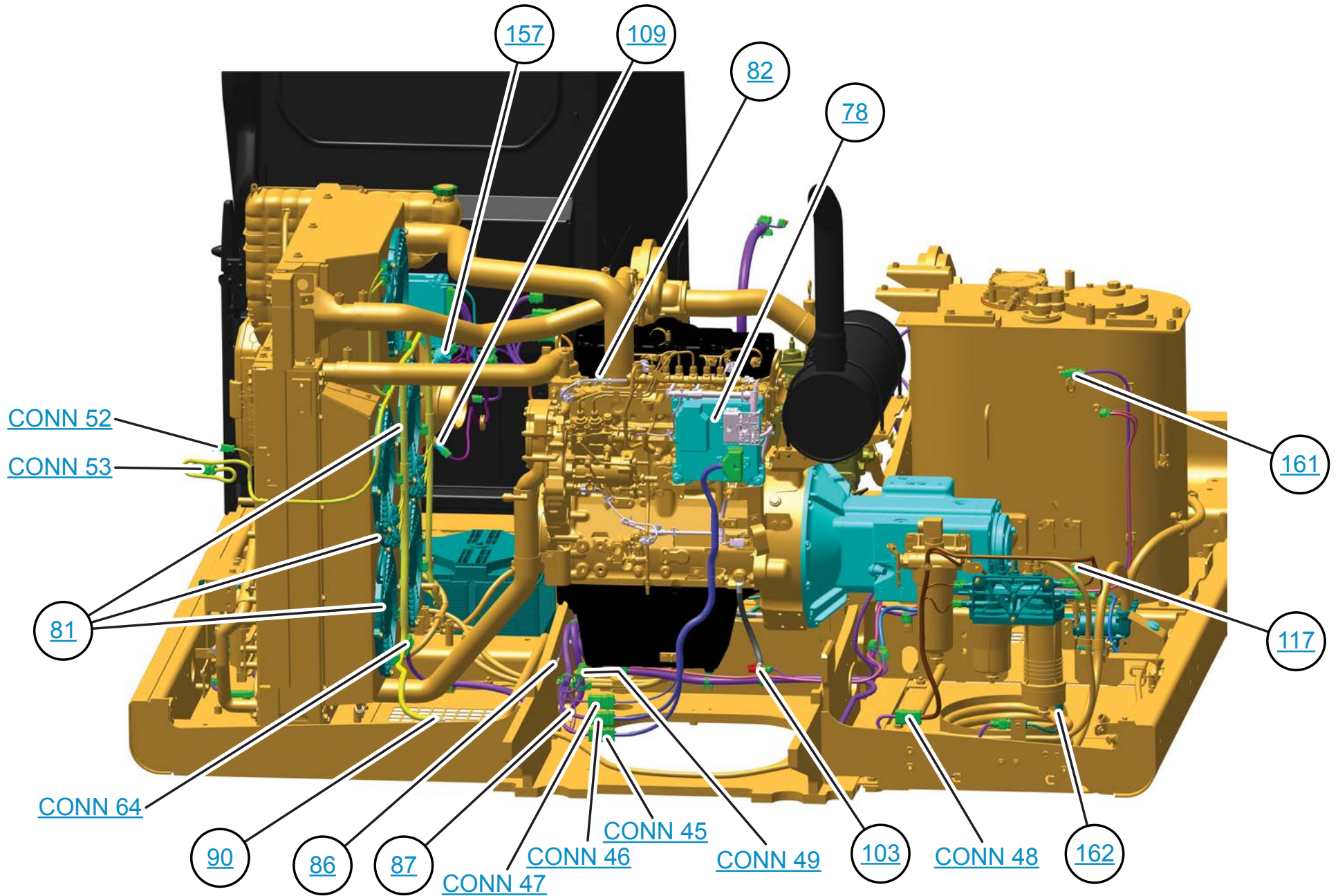




# CHASSIS FRONT - ENGINE VIEW

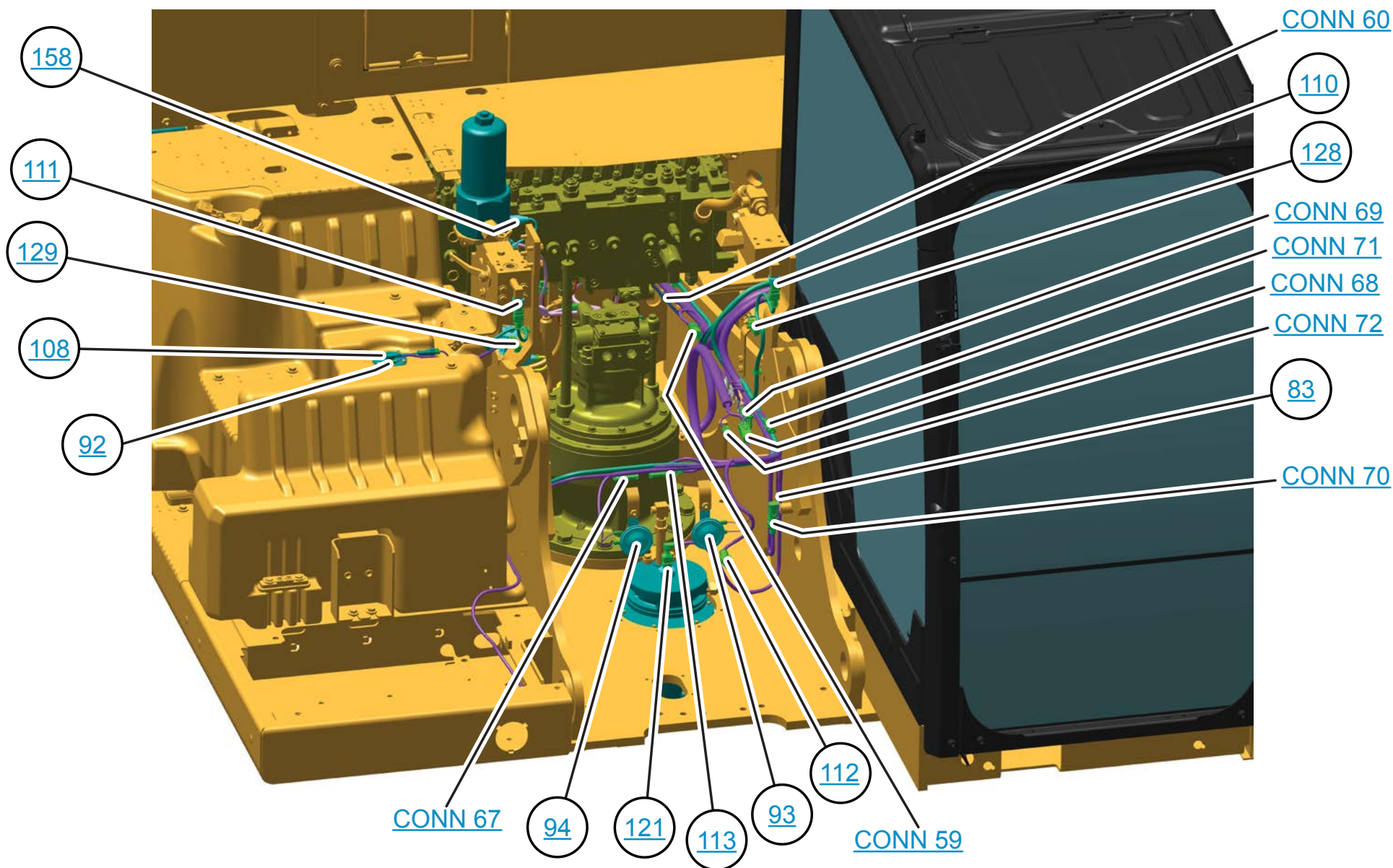


# CHASSIS REAR - ENGINE VIEW

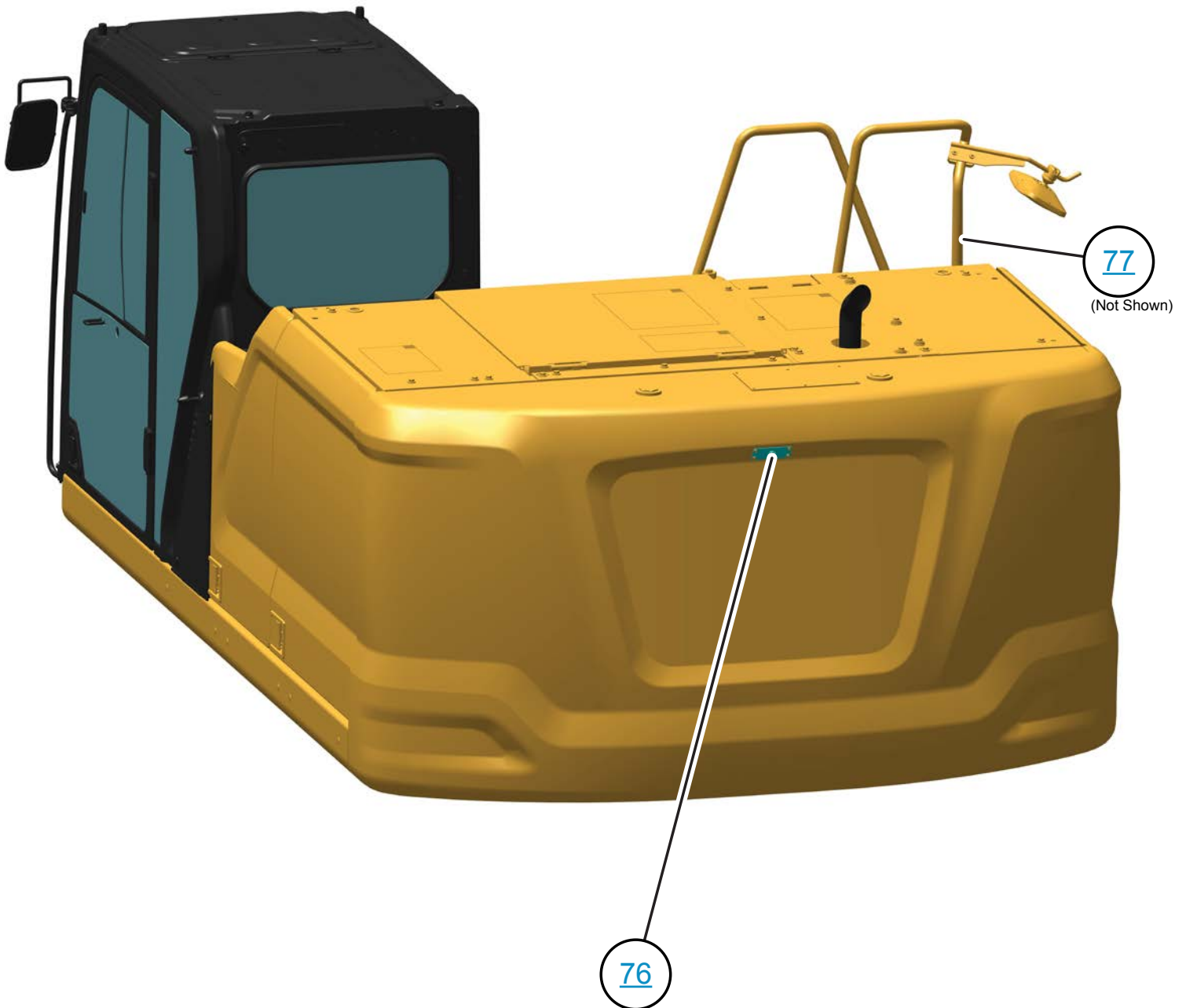




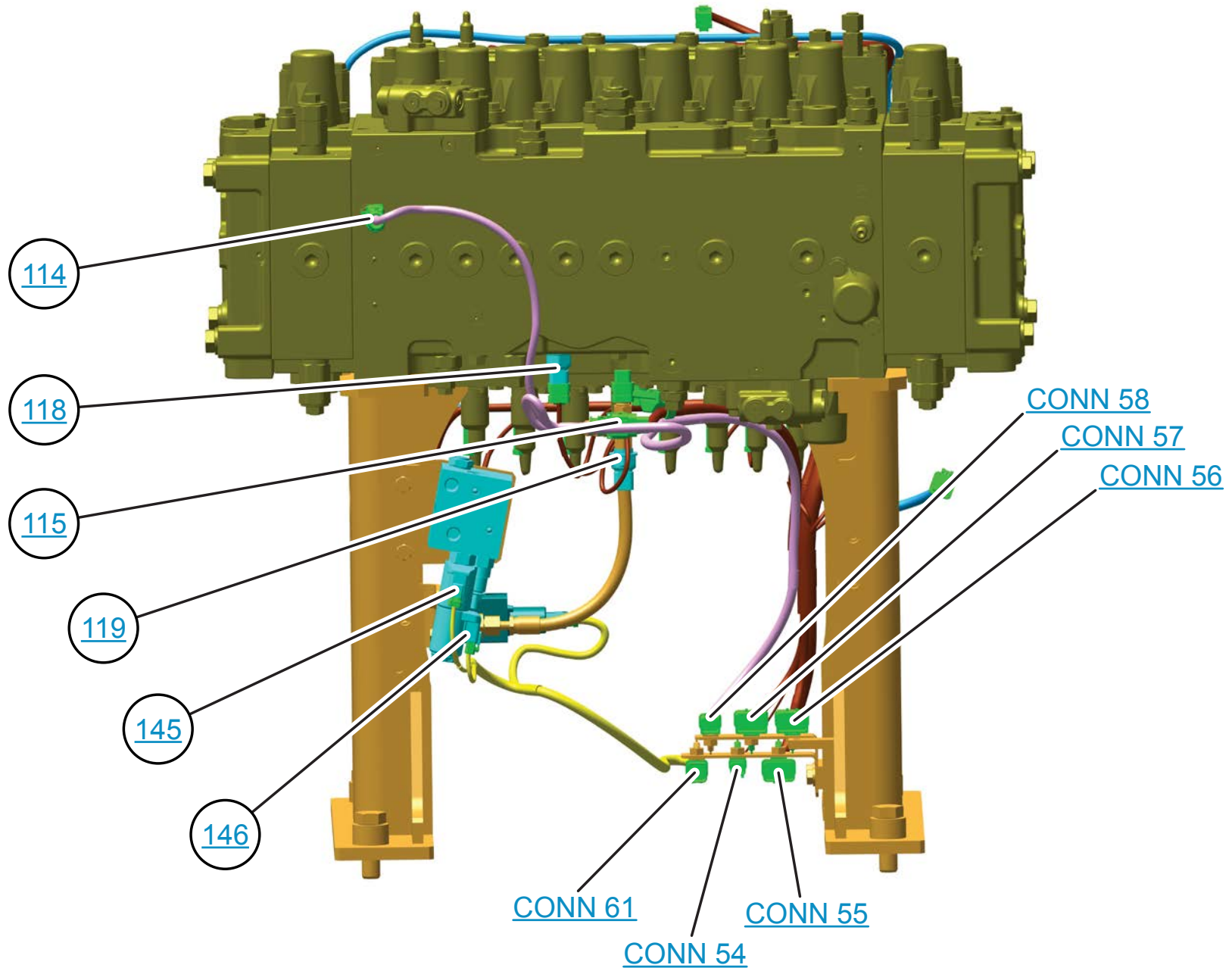
# MACHINE FRONT - TOP VIEW



# MACHINE REAR VIEW



# MAIN CONTROL VALVE - FRONT





# MAIN CONTROL VALVE - REAR

