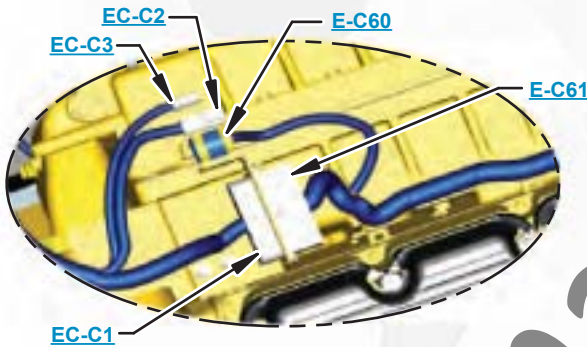


The Bookmarks panel will allow you to quickly navigate to points of interest.

***\*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”

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	

CYLINDERS	
Single Acting	Double Acting

ACCUMULATORS	
Spring Loaded	Gas Charged

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

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

ROTATING SHAFTS	
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	

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>Part Number:</b> for Connector Plug	
<b>Plug</b> <b>Receptacle Pin or Socket Number</b>	
<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>Fuse (5 Amps)</b> <b>Component Part Number</b>	
<b>325-AG135</b> <b>PK-14</b>	
<b>Harness identification code:</b> This example indicates wire group 325, wire 135 in harness "AG".	
<b>Wire Gauge</b> <b>Wire Color</b>	
<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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## **318E Excavator Electrical System**

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DZF1-UP  
WZS1-UP

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**Volume 1 of 2: Cab**  
**Volume 2 of 2: Chassis, AccuGrade, and Product Link**

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# COMPONENT TABLE



Component Location (Volume 1)		
Component	Schematic Location	Machine Location
A/C Unit	<a href="#">F-10</a>	<a href="#">1</a>
Alarm - Action	<a href="#">F-1</a>	<a href="#">2</a>
Control - Machine	<a href="#">J-10</a>	<a href="#">3</a>
Control - Wiper	<a href="#">E-4</a>	<a href="#">4</a>
Converter - 12V / 10A	<a href="#">F-10</a>	<a href="#">5</a>
Converter - Radio	<a href="#">A-11</a>	<a href="#">6</a>
Diode - Main Relay	<a href="#">A-13</a>	<a href="#">7</a>
Fuse/Relay Panel	<a href="#">D-14</a>	<a href="#">8</a>
Ground - Cab 1	<a href="#">B-12</a>	<a href="#">9</a>
Ground - Cab Top	<a href="#">E-4</a>	<a href="#">10</a>
Ground - Platform	<a href="#">I-5</a>	<a href="#">11</a>
Joystick - LH	<a href="#">J-1</a>	<a href="#">12</a>
Joystick - RH	<a href="#">I-2</a>	<a href="#">13</a>
Monitor	<a href="#">G-1</a>	<a href="#">14</a>
Motor - Lower Wiper	<a href="#">J-1</a>	<a href="#">15</a>
Motor - Parallel Wiper	<a href="#">J-1</a>	<a href="#">16</a>
Motor - Wiper	<a href="#">G-3</a>	<a href="#">17</a>
Pedal - LH	<a href="#">H-1</a>	<a href="#">18</a>
Pedal - RH	<a href="#">H-1</a>	<a href="#">19</a>
Relay - Main	<a href="#">A-13</a>	<a href="#">20</a>
Resistor - CAN 1	<a href="#">G-11</a>	<a href="#">21</a>
Resistor - CAN 1	<a href="#">E-4</a>	<a href="#">22</a>
Resistor - CAN 2	<a href="#">E-4</a>	<a href="#">23</a>
Sensor - Boom Down Control Pressure	<a href="#">I-3</a>	<a href="#">24</a>
Sensor - Boom Up Control Pressure	<a href="#">G-1, H-4, I-3</a>	<a href="#">25</a>
Sensor - Pedal RH Control Pressure	<a href="#">H-1</a>	<a href="#">26</a>
Sensor - Swing Control Pressure	<a href="#">J-1</a>	<a href="#">27</a>

Component Location (Volume 1)		
Component	Schematic Location	Machine Location
Solenoid - Boom Up	<a href="#">H-4</a>	<a href="#">28</a>
Solenoid - Bucket Out	<a href="#">H-4</a>	<a href="#">29</a>
Switch - Blade Control Pressure	<a href="#">I-3</a>	<a href="#">30</a>
Switch - Boom Low Pressure Relief Enable	<a href="#">B-6</a>	<a href="#">31</a>
Switch - CRS	<a href="#">B-7</a>	<a href="#">32</a>
Switch - Fine Swing Control	<a href="#">B-5</a>	<a href="#">33</a>
Switch - Foot	<a href="#">H-1</a>	<a href="#">34</a>
Switch - Horn	<a href="#">J-2</a>	<a href="#">35</a>
Switch - Implement Pressure	<a href="#">J-3</a>	<a href="#">36</a>
Switch - Key	<a href="#">D-2</a>	<a href="#">37</a>
Switch - Lower Washer	<a href="#">B-6</a>	<a href="#">38</a>
Switch - Lower Wiper	<a href="#">B-6</a>	<a href="#">39</a>
Switch - Neutral Start Limit	<a href="#">J-3</a>	<a href="#">40</a>
Switch - One Touch Low Idle	<a href="#">H-2</a>	<a href="#">41</a>
Switch - Over Load Warning	<a href="#">B-7</a>	<a href="#">42</a>
Switch - Pedal LH Control Pressure	<a href="#">G-1</a>	<a href="#">43</a>
Switch - Quick Coupler	<a href="#">B-8</a>	<a href="#">44</a>
Switch - Radio Mute	<a href="#">B-10</a>	<a href="#">45</a>
Switch - Secondary Shutdown	<a href="#">I-2</a>	<a href="#">46</a>
Switch - Smart Boom Select	<a href="#">B-8</a>	<a href="#">47</a>
Switch - Travel Left Pressure	<a href="#">I-1</a>	<a href="#">48</a>
Switch - Travel Right Pressure	<a href="#">I-1</a>	<a href="#">49</a>
Switch - Travel Straight Pressure	<a href="#">I-1</a>	<a href="#">50</a>
Switch - Under Window Limit	<a href="#">E-1</a>	<a href="#">51</a>
Switch - Window Limit	<a href="#">E-3</a>	<a href="#">52</a>
Switch Panel	<a href="#">E-2</a>	<a href="#">53</a>

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# COMPONENT TABLE



Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Backup Travel ATCH	C-5	54	Sensor - Engine Coolant Temperature	D-14	114
Alternator	I-13	55	Sensor - Engine Intake Manifold Pressure	D-14	115
Battery - Front	I-11	56	Sensor - Engine Intake Manifold Temperature	D-14	116
Battery - Rear	I-11	57	Sensor - Engine Oil Pressure	F-14	117
Block - Junction	I-10	58	Sensor - Fuel Pressure	F-14	118
Camera - WAVS Rear ATCH	G-2	59	Sensor - Fuel Temperature	D-14	119
Circuit Breaker - Alternator, Main, and Glow Plug	J-10	60	Sensor - Laser Receiver with Angle	A-9	120
Compressor - Refrigerant	I-13	61	Sensor - NFC Pilot Pressure 1	B-15	121
Control - 321SR Product Link	J-7	62	Sensor - NFC Pilot Pressure 2	B-15	122
Control - Engine	J-16	63	Sensor - NOX Reduction System Intake Pressure	E-14	123
Control - GSM Product Link	J-4	64	Sensor - NOX Reduction System Outlet Pressure	E-14	124
Control - Japan Product Link	J-9	65	Sensor - NOX Reduction System Temperature	E-14	125
Display - CD700	B-5	66	Sensor - Pump 1 Pressure	H-8	126
Ground - AccuGrade Chassis 1	C-12	67	Sensor - Pump 2 Pressure	H-8	127
Ground - AccuGrade Chassis 2	B-12	68	Sensor - Soot	A-12	128
Ground - Chassis 1	I-10	69	Sensor - Stick In Pressure (GE Harn.) ATCH	E-9	129
Ground - Chassis 2	H-10	70	Sensor - Stick In Pressure (GJ Harn.) ATCH	F-9	130
Ground - Chassis 3	G-6	71	Sensor - Stick Out Control Pressure 1 ATCH	H-9	131
Ground - Chassis 4	D-4	72	Sensor - Stick Out Control Pressure 2 ATCH	H-9	132
Ground - Chassis 5	C-4	73	Sensor - Stick Position ATCH	D-1	133
Ground - Engine Room (LH)	G-14	74	Sensor - Stick Position (AccuGrade) ATCH	A-11	134
Ground - Engine Room (RH)	G-14	75	Sensor - Water In Fuel	B-15	135
Ground - Starting Motor	J-14	76	Solenoid - Quick Coupler Bypass Cut ATCH	E-12	136
Horn - Forward High Tone (RH)	C-2	77	Solenoid Valve - BM Regen	E-5	137
Horn - Forward Low Tone (LH)	C-2	78	Solenoid Valve - Boom Lowering Control	H-8	138
Module - Aftertreatment Identification	C-15	79	Solenoid Valve - Fine Swing ATCH	C-2	139
Motor - Starting	J-14	80	Solenoid Valve - Hydraulic Lockout	I-12	140
Pump - Fuel Transfer	B-15	81	Solenoid Valve - NFC Limit 1	B-15	141
Pump - Fuel Transfer ATCH	C-3	82	Solenoid Valve - NFC Limit 2	B-15	142
Pump - Lower Washer ATCH	H-11	83	Solenoid Valve - Power Shift	A-15	143
Pump - Washer	I-12	84	Solenoid Valve - Quick Coupler ATCH	C-15	144
Radio - 121SR Product Link Communication	A-5	85	Solenoid Valve - Stem 1 Extend (GE Harn.) ATCH	F-11	145
Radio - CR900C ATCH	D-5	86	Solenoid Valve - Stem 1 Extend (GJ Harn.) ATCH	G-11	146
Receiver - GPS Satellite (LH)	E-12	87	Solenoid Valve - Stem 1 Retract (GE Harn.) ATCH	F-11	147
Receiver - GPS Satellite (RH)	G-12	88	Solenoid Valve - Stem 1 Retract (GJ Harn.) ATCH	G-11	148
Receptacle - Jump Start ATCH	I-10	89	Solenoid Valve - Stem 2 Extend (GE Harn.) ATCH	F-11	149
Resistor - CAN Data Link	I-14	90	Solenoid Valve - Stem 2 Extend (GJ Harn.) ATCH	G-11	150
Resistor - Engine CAN Data Link 1	B-14	91	Solenoid Valve - Stem 2 Retract (GE Harn.) ATCH	F-11	151
Resistor - Engine CAN Data Link 2	A-12	92	Solenoid Valve - Stem 2 Retract (GJ Harn.) ATCH	G-11	152
Resistor - Engine CAN Data Link 3	B-11	93	Solenoid Valve - Stem 3 Extend ATCH	F-11	153
Resistor - Engine CAN Data Link 4	B-8	94	Solenoid Valve - Stem 3 Retract ATCH	F-11	154
Resistor - GPS CAN Data Link 1	D-12	95	Solenoid Valve - Swing Brake Release	I-12	155
Resistor - GPS CAN Data Link 2	A-6	96	Solenoid Valve - System Pressure Change	D-14	156
Sender - Fuel Level	C-5	97	Solenoid Valve - Travel Speed	I-12	157
Sender - Hydraulic Oil Temperature	A-13	98	Solenoid Valve - Variable Relief 1 (GE Harn.) ATCH	D-5	158
Sensor - Air Inlet Manifold Pressure	I-12	99	Solenoid Valve - Variable Relief 1 (GJ Harn.) ATCH	E-5	159
Sensor - Air Inlet Manifold Temperature	I-12	100	Solenoid Valve - Variable Relief 2 (GE Harn.) ATCH	D-5	160
Sensor - Atmospheric Pressure	F-14	101	Solenoid Valve - Variable Relief 2 (GJ Harn.) ATCH	D-5	161
Sensor - Body Angle	C-10	102	Solenoid Valve - Wastegate	D-14	162
Sensor - Boom Cylinder Head End Pressure (HA Harn.)	C-2	103	Switch - Disconnect	I-10	163
Sensor - Boom Cylinder Head End Pressure (HH Harn.)	C-1	104	Switch - Engine Oil Level	J-13	164
Sensor - Boom Cylinder Rod End Pressure ATCH	D-1	105	Switch - Hammer Filter Bypass ATCH	E-5	165
Sensor - Boom Position ATCH	D-4	106	Switch - Hydraulic Oil Pressure	A-12	166
Sensor - Boom Position (AccuGrade) ATCH	C-10	107	Switch - Refueling Level ATCH	B-5	167
Sensor - Bucket Angle	A-9	108	Switch - Shunt Tank Level	H-11	168
Sensor - Bucket Position	A-9	109	Switch - Travel Pressure	H-8	169
Sensor - Camshaft Speed	D-14	110	Valve - Back Pressure Exhaust	E-14	170
Sensor - Charge Air Temperature	J-16	111	Valve - Fuel Pump Control	E-14	171
Sensor - Clean Emissions Module Temperature	C-15	112	Valve - Nox Reduction System	E-14	172
Sensor - Crankshaft Speed	D-14	113	Valve - Quick Coupler Unlock Control ATCH	C-15	173

# CONNECTOR TABLE



Connector Location (Volume 1)	
Connector Number	Schematic Location
<a href="#">CONN 1</a>	<a href="#">C-15</a>
<a href="#">CONN 2</a>	<a href="#">C-15</a>
<a href="#">CONN 3</a>	<a href="#">D-15</a>
<a href="#">CONN 4</a>	<a href="#">E-15</a>
<a href="#">CONN 5</a>	<a href="#">F-15</a>
<a href="#">CONN 6</a>	<a href="#">G-15</a>
<a href="#">CONN 7</a>	<a href="#">G-15</a>
<a href="#">CONN 8</a>	<a href="#">I-16</a>
<a href="#">CONN 9</a>	<a href="#">G-13, H-13</a>
<a href="#">CONN 10</a>	<a href="#">F-13, G-13, H-13</a>
<a href="#">CONN 11</a>	<a href="#">H-14</a>
<a href="#">CONN 12</a>	<a href="#">F-13</a>
<a href="#">CONN 13</a> Service Tool Connector	<a href="#">C-12</a>
<a href="#">CONN 14</a>	<a href="#">C-7, C-11</a>
<a href="#">CONN 15</a>	<a href="#">C-11</a>
<a href="#">CONN 16</a>	<a href="#">G-10</a>
<a href="#">CONN 17</a>	<a href="#">B-8</a>
<a href="#">CONN 18</a>	<a href="#">C-7</a>
<a href="#">CONN 19</a>	<a href="#">J-6</a>
<a href="#">CONN 20</a>	<a href="#">J-6</a>
<a href="#">CONN 21</a>	<a href="#">I-6</a>
<a href="#">CONN 22</a>	<a href="#">I-6</a>
<a href="#">CONN 23</a>	<a href="#">I-6</a>
<a href="#">CONN 24</a>	<a href="#">H-6</a>
<a href="#">CONN 25</a>	<a href="#">H-6</a>
<a href="#">CONN 26</a>	<a href="#">H-6</a>
<a href="#">CONN 27</a>	<a href="#">D-4</a>
<a href="#">CONN 28</a>	<a href="#">E-4</a>
<a href="#">CONN 29</a>	<a href="#">G-4</a>
<a href="#">CONN 30</a>	<a href="#">G-4</a>
<a href="#">CONN 31</a>	<a href="#">I-4</a>
<a href="#">CONN 32</a>	<a href="#">I-4</a>
<a href="#">CONN 33</a>	<a href="#">C-3</a>
<a href="#">CONN 34</a>	<a href="#">F-1</a>

Connector Location (Volume 2)	
Connector Number	Schematic Location
<a href="#">CONN 1</a>	<a href="#">G-1</a>
<a href="#">CONN 3</a>	<a href="#">E-2</a>
<a href="#">CONN 4</a>	<a href="#">D-1</a>
<a href="#">CONN 5</a>	<a href="#">F-1</a>
<a href="#">CONN 6</a>	<a href="#">G-1</a>
<a href="#">CONN 7</a>	<a href="#">G-1, F-1</a>
<a href="#">CONN 8</a>	<a href="#">I-1</a>
<a href="#">CONN 9</a>	<a href="#">C-9</a>
<a href="#">CONN 11</a>	<a href="#">C-9</a>
<a href="#">CONN 12</a>	<a href="#">C-9</a>
<a href="#">CONN 16</a>	<a href="#">I-8, I-5, I-3</a>
<a href="#">CONN 31</a>	<a href="#">C-8, D-7</a>
<a href="#">CONN 35</a>	<a href="#">B-15</a>
<a href="#">CONN 36</a>	<a href="#">A-14</a>
<a href="#">CONN 37</a>	<a href="#">A-14</a>
<a href="#">CONN 39</a>	<a href="#">A-11</a>
<a href="#">CONN 40</a>	<a href="#">B-10</a>
<a href="#">CONN 41</a>	<a href="#">D-9</a>
<a href="#">CONN 42</a>	<a href="#">D-9</a>
<a href="#">CONN 43</a>	<a href="#">H-9</a>
<a href="#">CONN 44</a>	<a href="#">H-9</a>
<a href="#">CONN 45</a>	<a href="#">H-9</a>
<a href="#">CONN 46</a>	<a href="#">C-8</a>
<a href="#">CONN 47</a>	<a href="#">B-7</a>
<a href="#">CONN 48</a>	<a href="#">B-5</a>
<a href="#">CONN 49</a>	<a href="#">C-3</a>
<a href="#">CONN 50</a>	<a href="#">F-2</a>
<a href="#">CONN 51</a>	<a href="#">D-2</a>
<a href="#">CONN 52</a>	<a href="#">D-2</a>
<a href="#">CONN 53</a>	<a href="#">C-2</a>
<a href="#">CONN 54</a>	<a href="#">C-2</a>
<a href="#">CONN 55</a>	<a href="#">C-2</a>
<a href="#">CONN 56</a>	<a href="#">B-2</a>
<a href="#">CONN 57</a>	<a href="#">I-12</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.

Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) <sup>1</sup>
111-9916	Solenoid: Boom Up Bucket Out	11.5 ± 0.5
324-5678	Resistor: CAN	120

<sup>1</sup> At room temperature unless otherwise noted.

Off-Machine Switch Specification				
Part No.	Function	Actuate	Deactuate	Contact Position
319-4407	Blade Control Pressure Implement Pressure Pedal Lefthand Control Pressure Travel Left Pressure Travel Right Pressure Travel Straight Pressure	490 ± 49 kPa (71 ± 7 psi)	294 kPa (42.6 psi)	Normally Open

Related Electrical Service Manuals		
Title	Form Number	
Alternator: Denso HDB	SENR4130	
Starting Motor: Delco 37 MT	SENR3581	
Engine Control:	KENR9231	
Machine Control:	KENR8658	

SchematicCatalog.com

Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) <sup>1</sup>
111-9916	Solenoid: NFC 1 NFC 2 Power Shift Pressure Stem 1 Extend Stem 1 Retract Stem 2 Extend Stem 2 Retract Stem 3 Extend Stem 3 Retract	11.5 ± 0.5
120-0044	Potentiometer: Boom Stick	5k ± 20%
121-1491	Solenoid: Hydraulic Lock Quick Coupler Bypass Cutoff Swing Brake Travel Speed Travel Straight	32.0 ± 3.2
121-6303	Solenoid: Heavy Lift	32.0 ± 3.2
239-1134	Solenoid: Start Aid	20
256-6454	Sensor: Charge Air Coolant Out Temperature Engine Intake Manifold Temperature Engine Coolant Temperature	- 40°C = 33.65k 25°C = 1k 120°C = 39
297-0265	Solenoid: Variable Relief 2	6.4
323-7894	Solenoid: Boom Down Boom Up	11.5 ± 0.5
323-7942	Solenoid: Variable Relief 1	6.4
324-5678	Resistor: CAN	120
328-2035	Solenoid: Quick Coupler	26.96 ± 1.6
335-0223	Solenoid: Boom Down Stick In	11.5 ± 0.5
335-0376	Solenoid: Boom Regeneration	11.5 ± 0.5
339-8822	Sensor: NRS Intake Temperature	- 40°C = 1724.5k 25°C = 49k 300°C = 65
341-1842	Sender: Fuel Level	Empty: 82 - 85 Full: 7.5 - 9
342-2924	Sender: Hydraulic Temperature	0°C = 20.8k - 25.45k 25°C = 6.1k - 7.5k 125°C = 221 - 269
367-4226	Solenoid: Waste Gate	10.9 ± 0.7

<sup>1</sup> At room temperature unless otherwise noted.

Off-Machine Switch Specification				
Part No.	Function	Actuate	Deactuate	Contact Position
350-5719	Fuel Differential Pressure	110 ± 10 kPa (16 ± 1.45 psi)	85 kPa MIN (12.33 psi)	Normally Closed

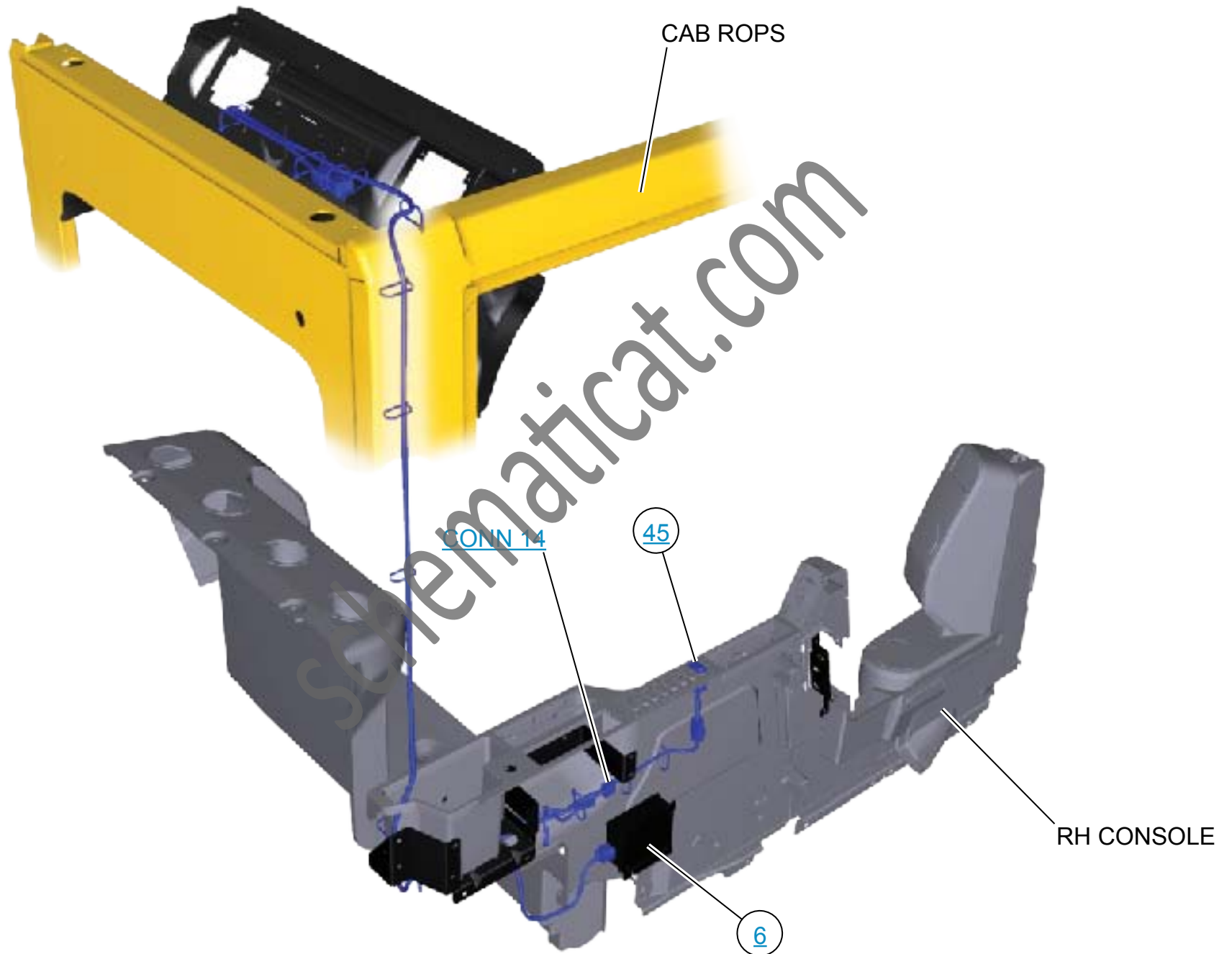
Related Electrical Service Manuals	
Title	Form Number
Cross Reference for Electrical Connectors:	REHS0970
Control: Engine	KENR9231



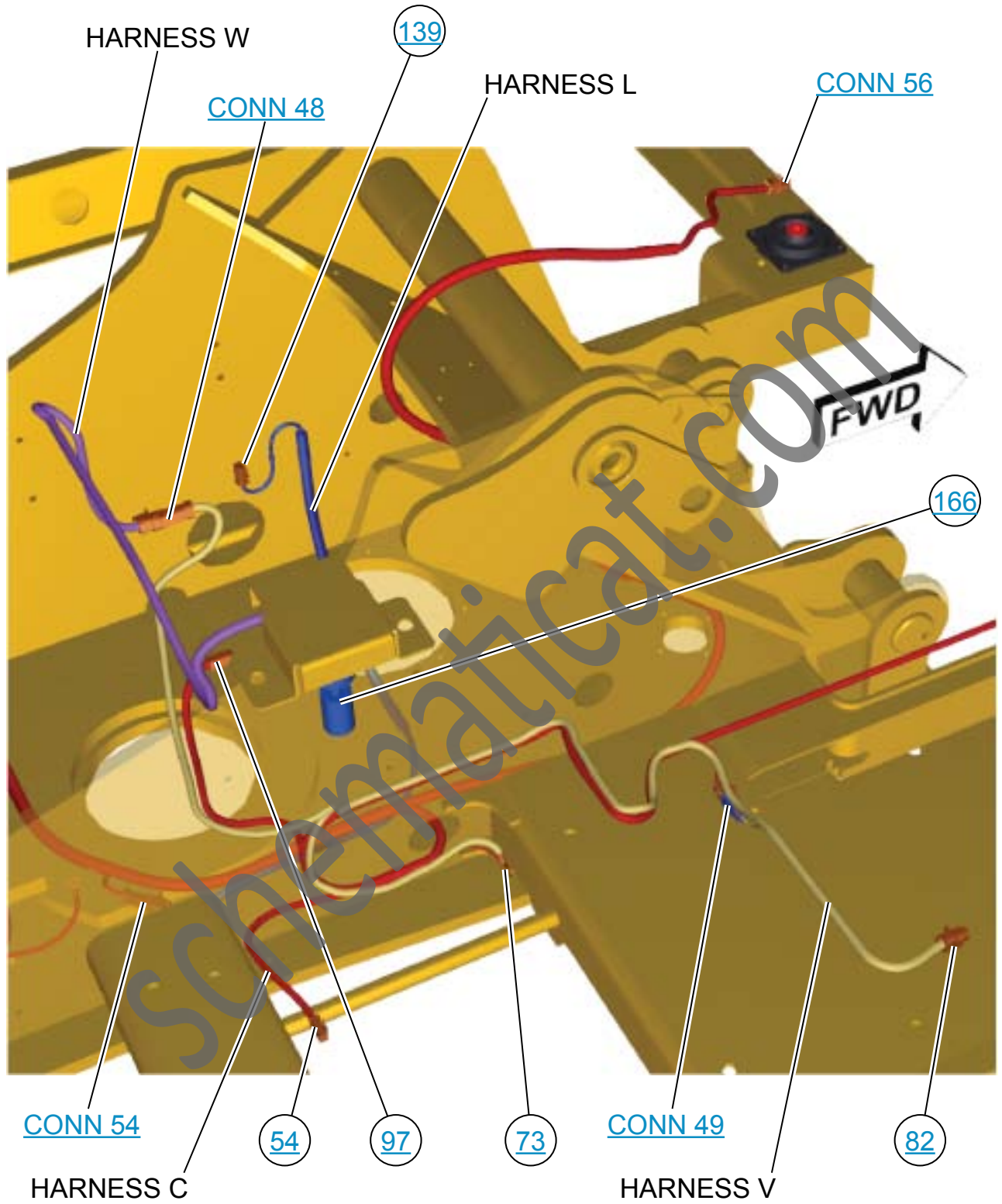




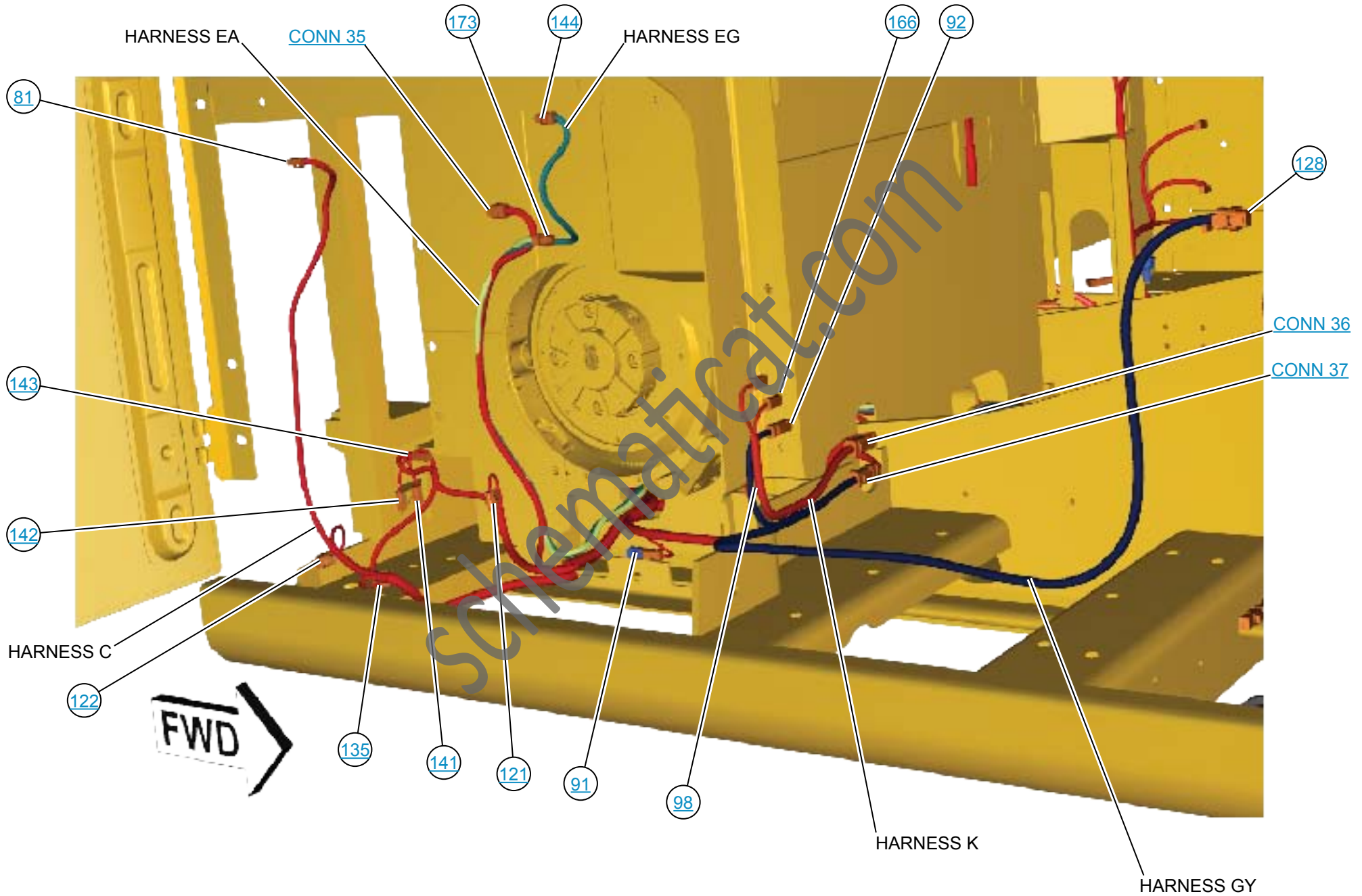
# ROPS HARNESS VIEW



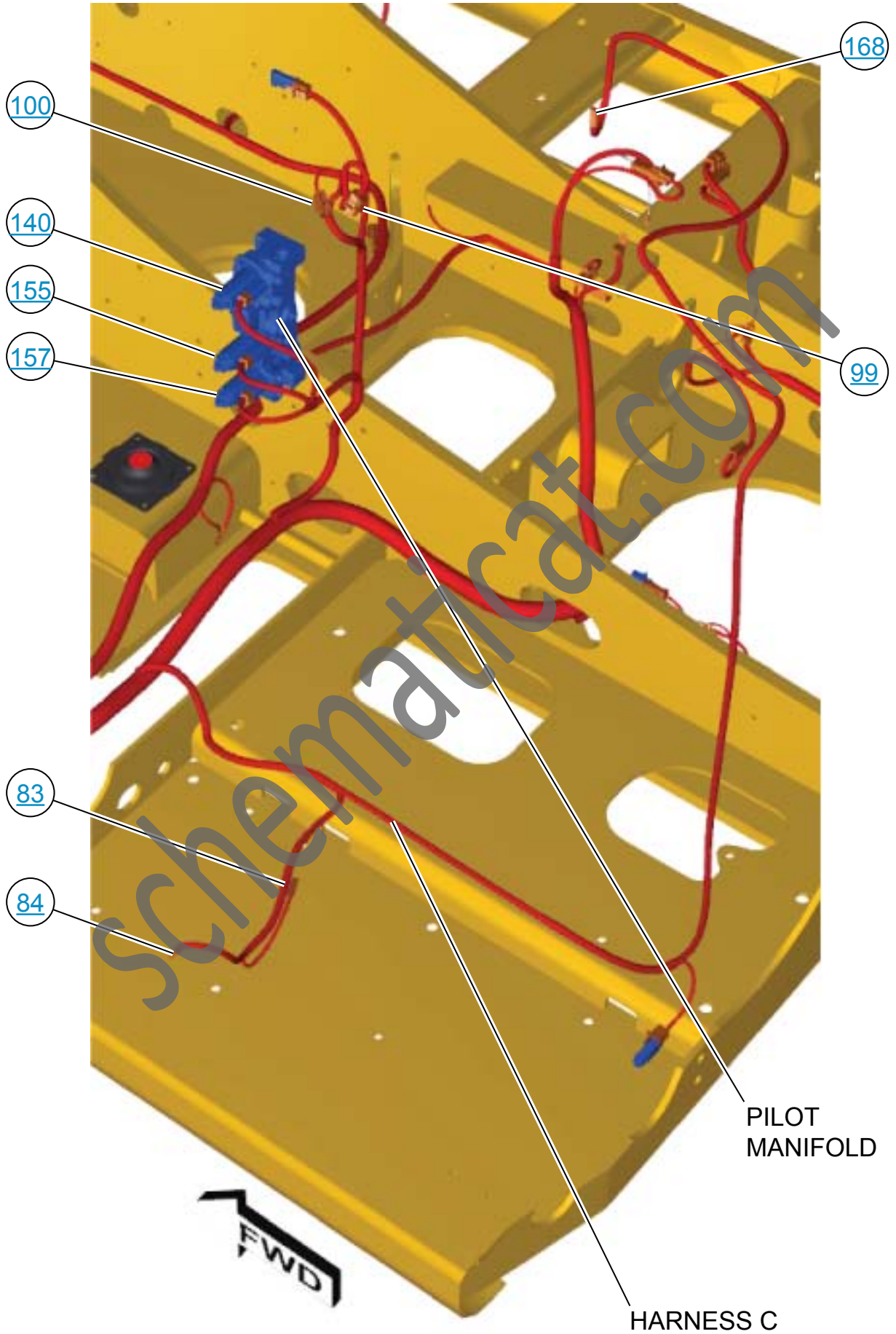
# REFUELING and FINE SWING VIEW

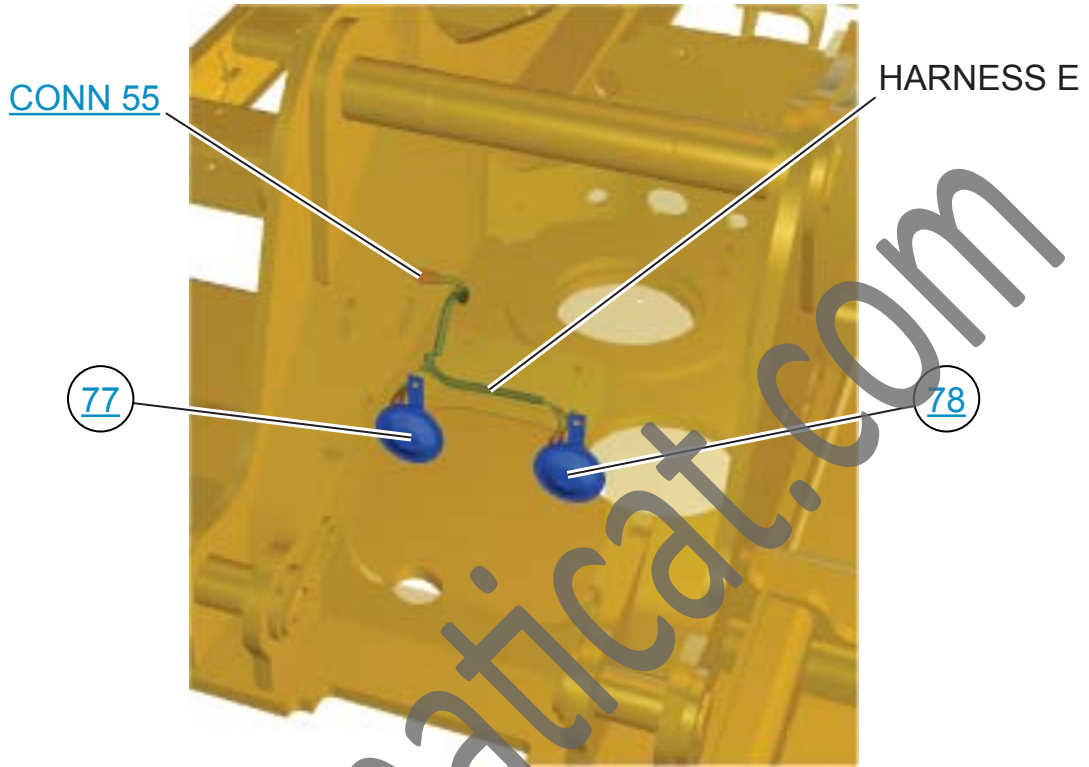


# PUMP ROOM



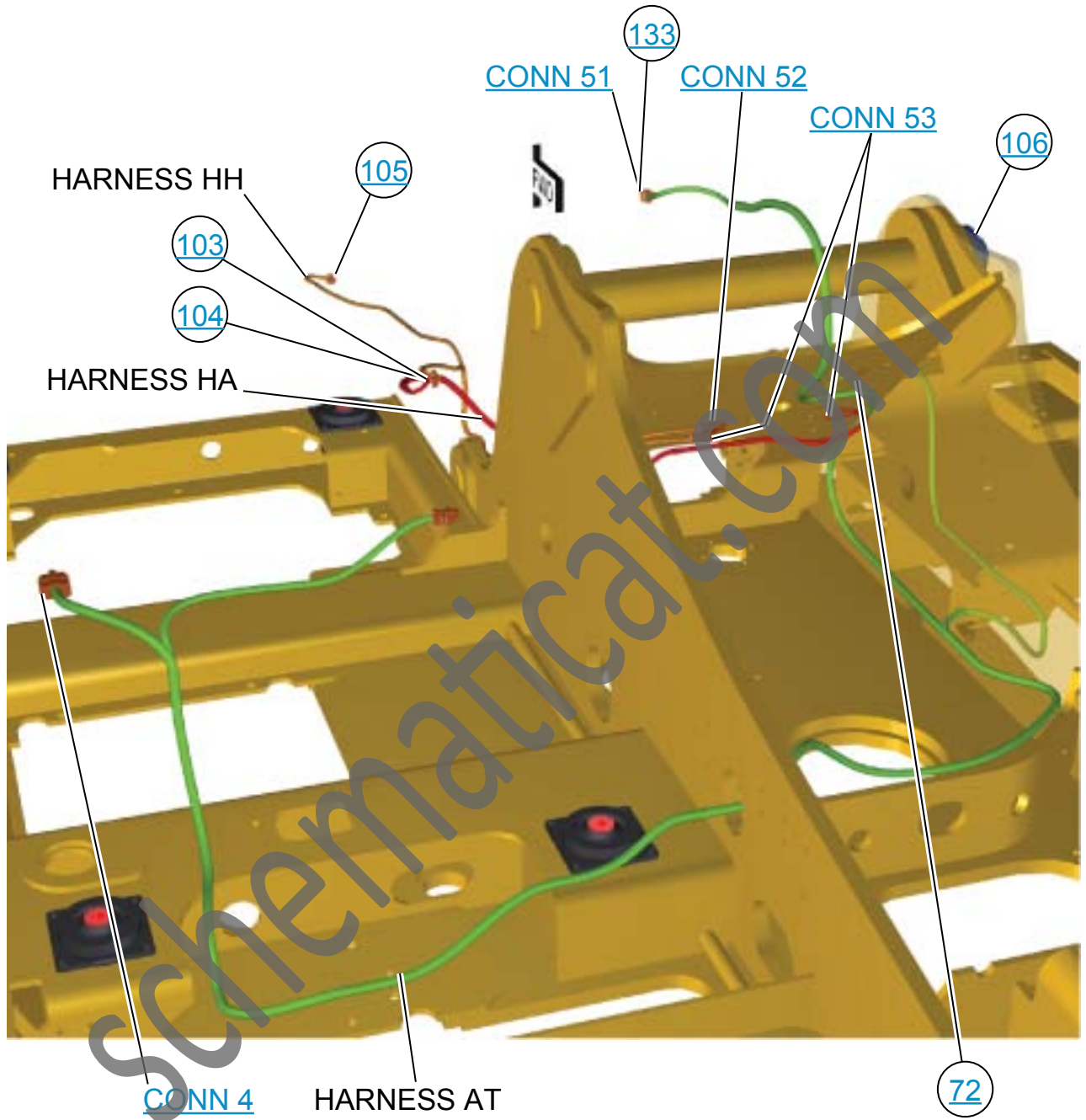
# PILOT MANIFOLD VIEW





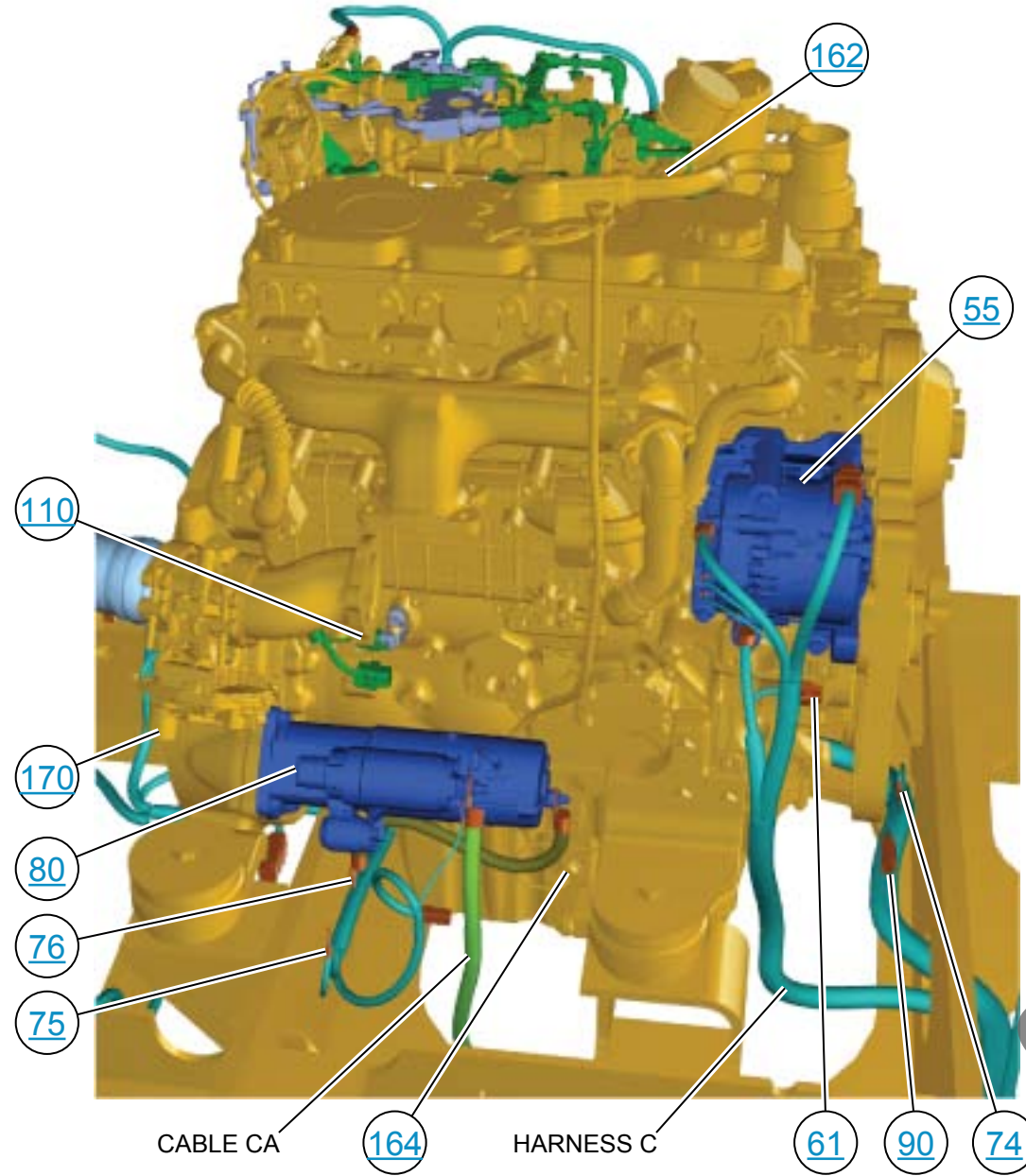
SchematicCat.com

# HARNESSES AT, HH, HA VIEW

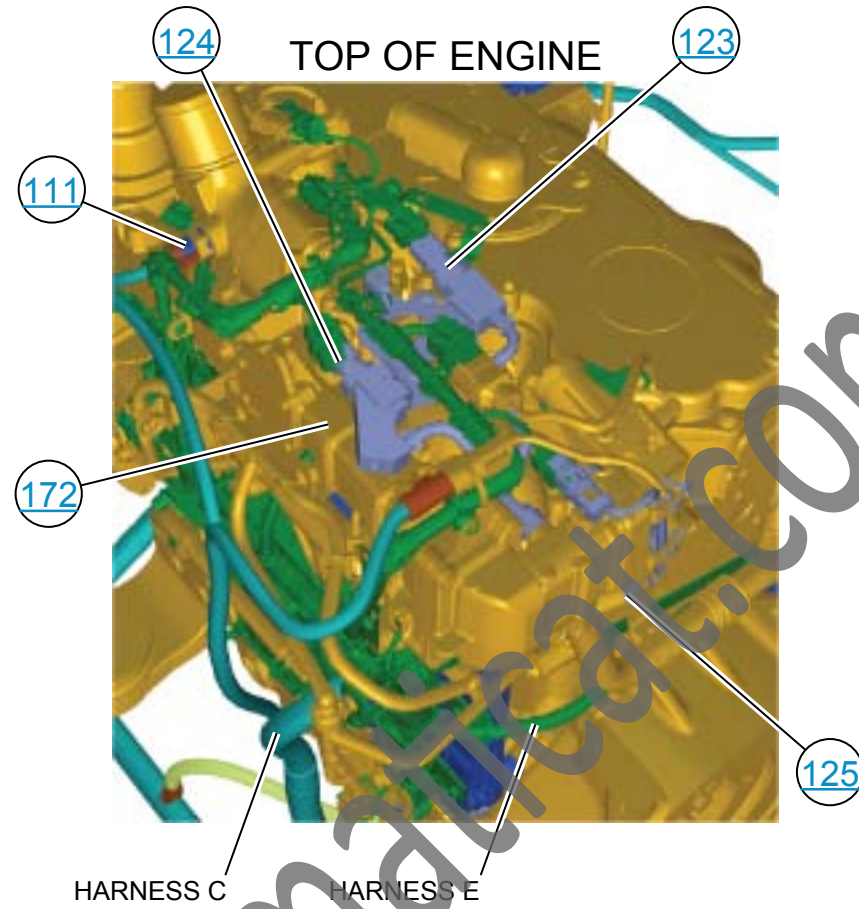




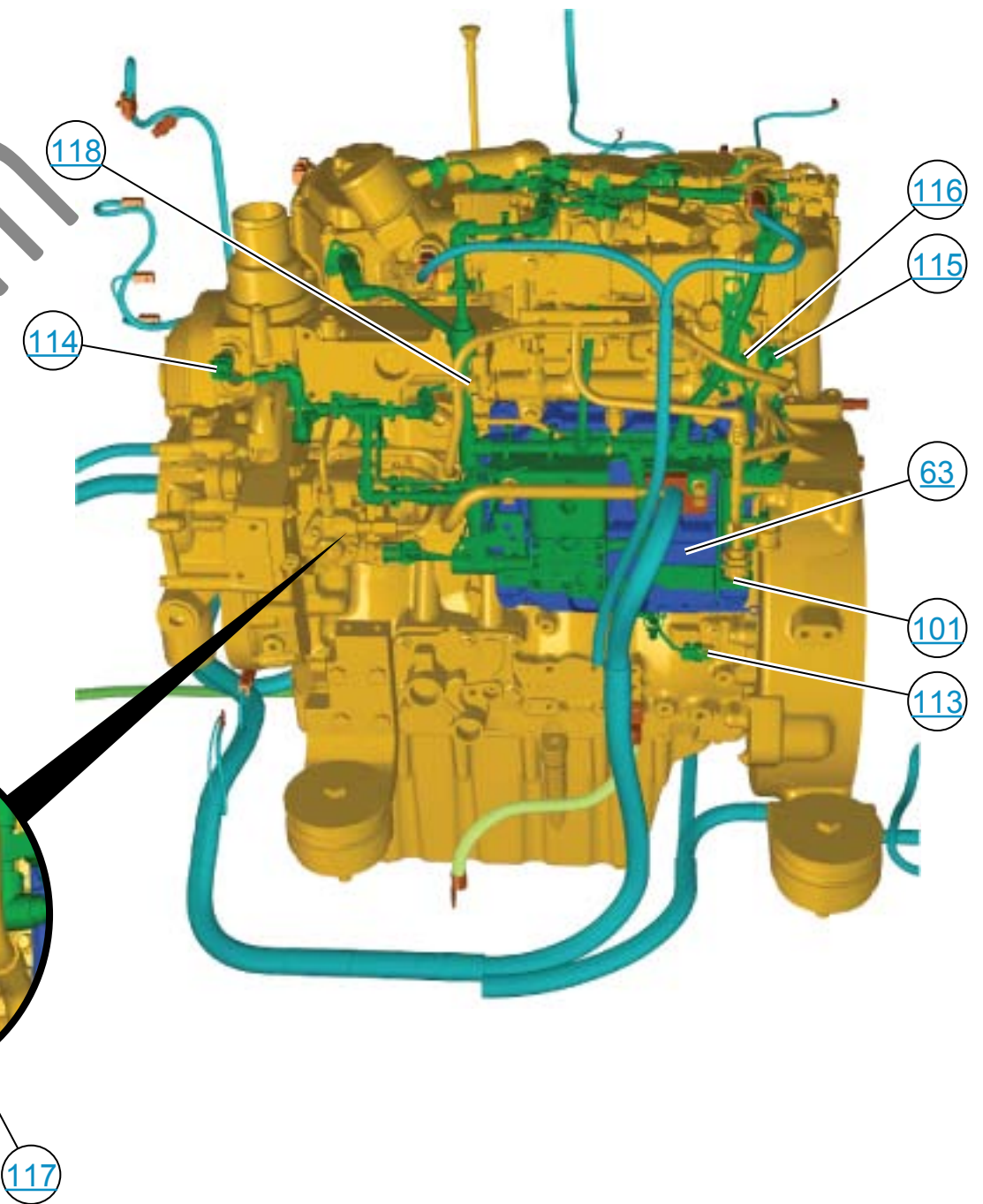
### FRONT OF ENGINE



### TOP OF ENGINE



### REAR OF ENGINE



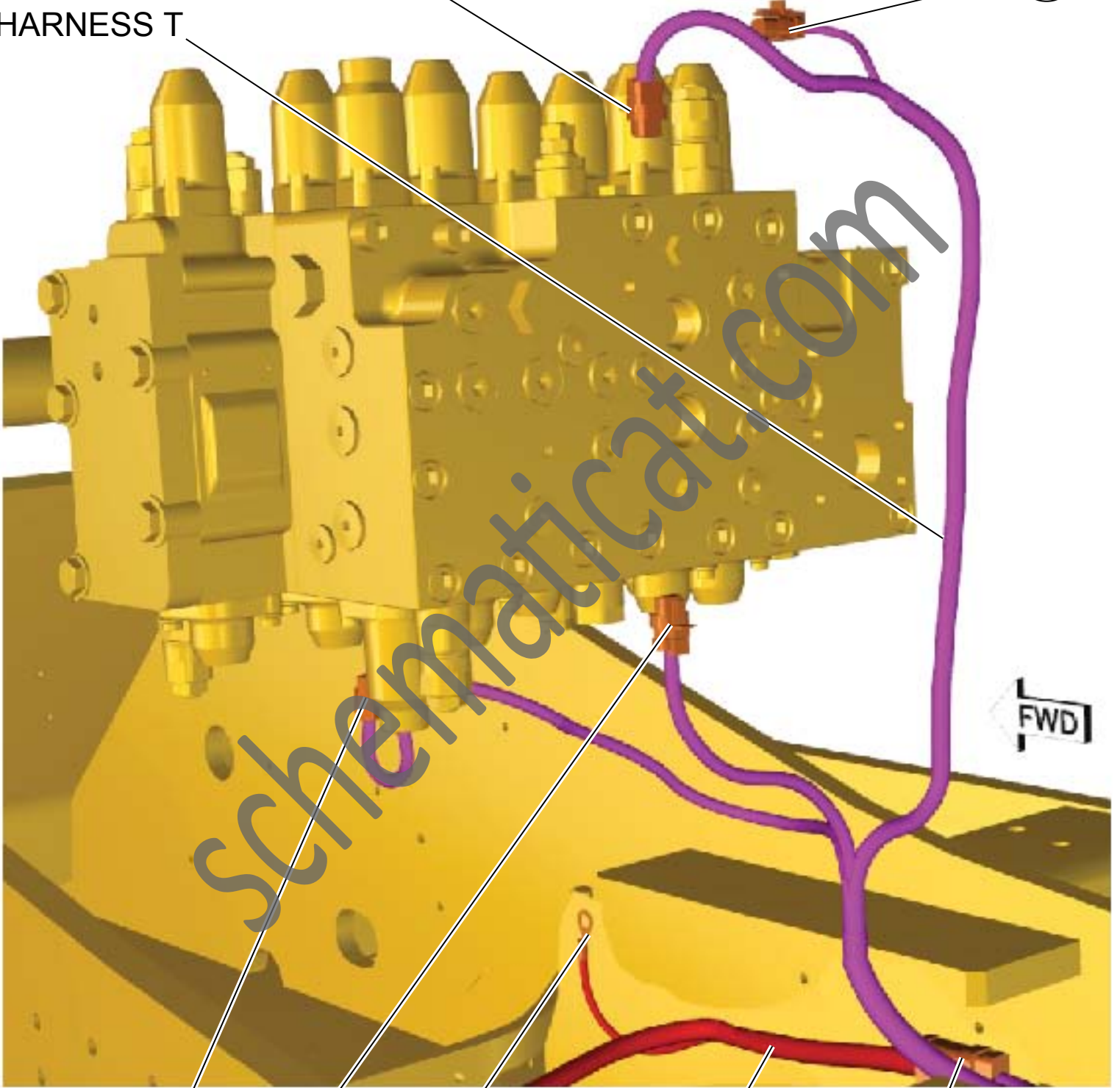
# CONTROL VALVE



126

169

HARNESS T



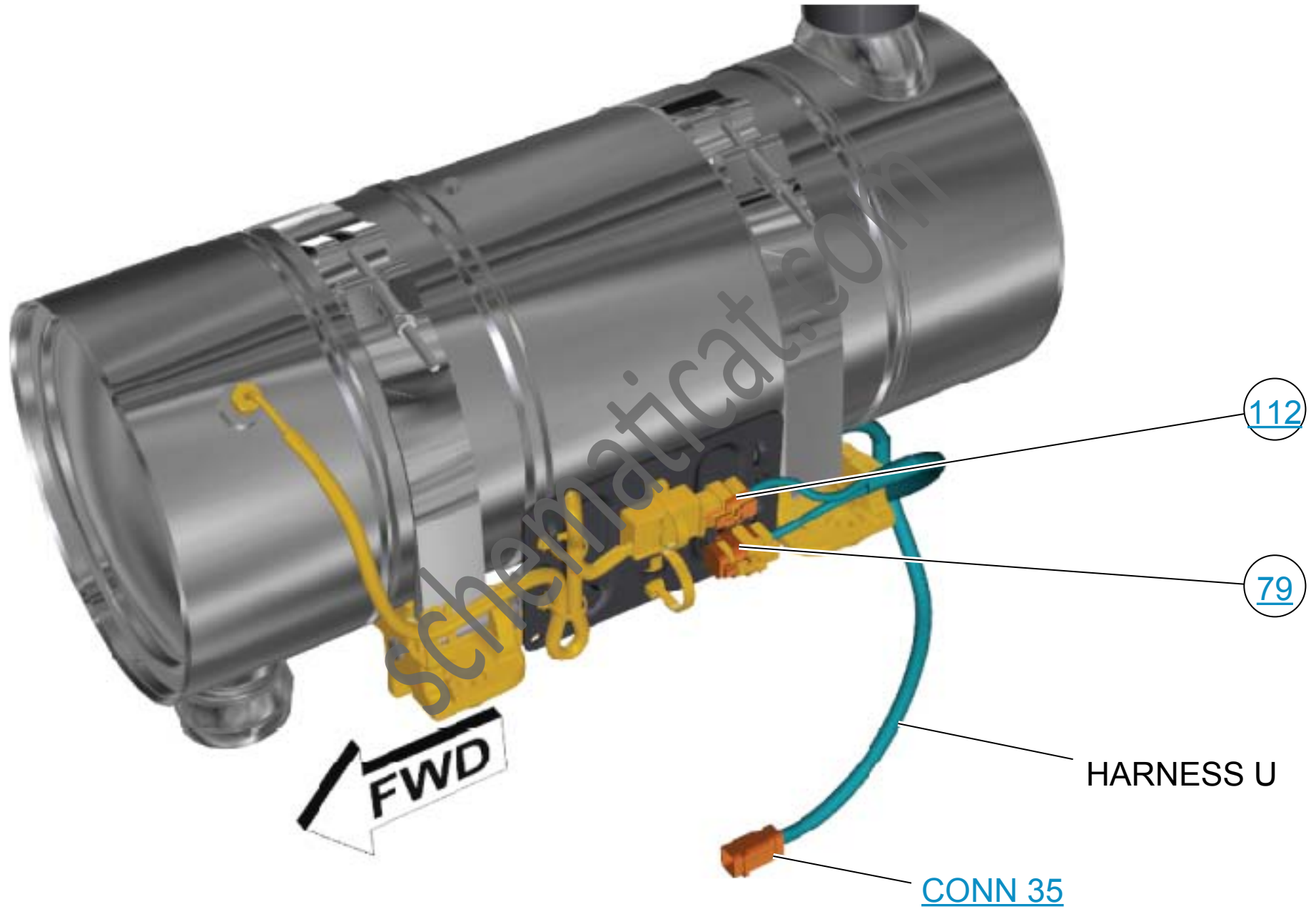
138

127

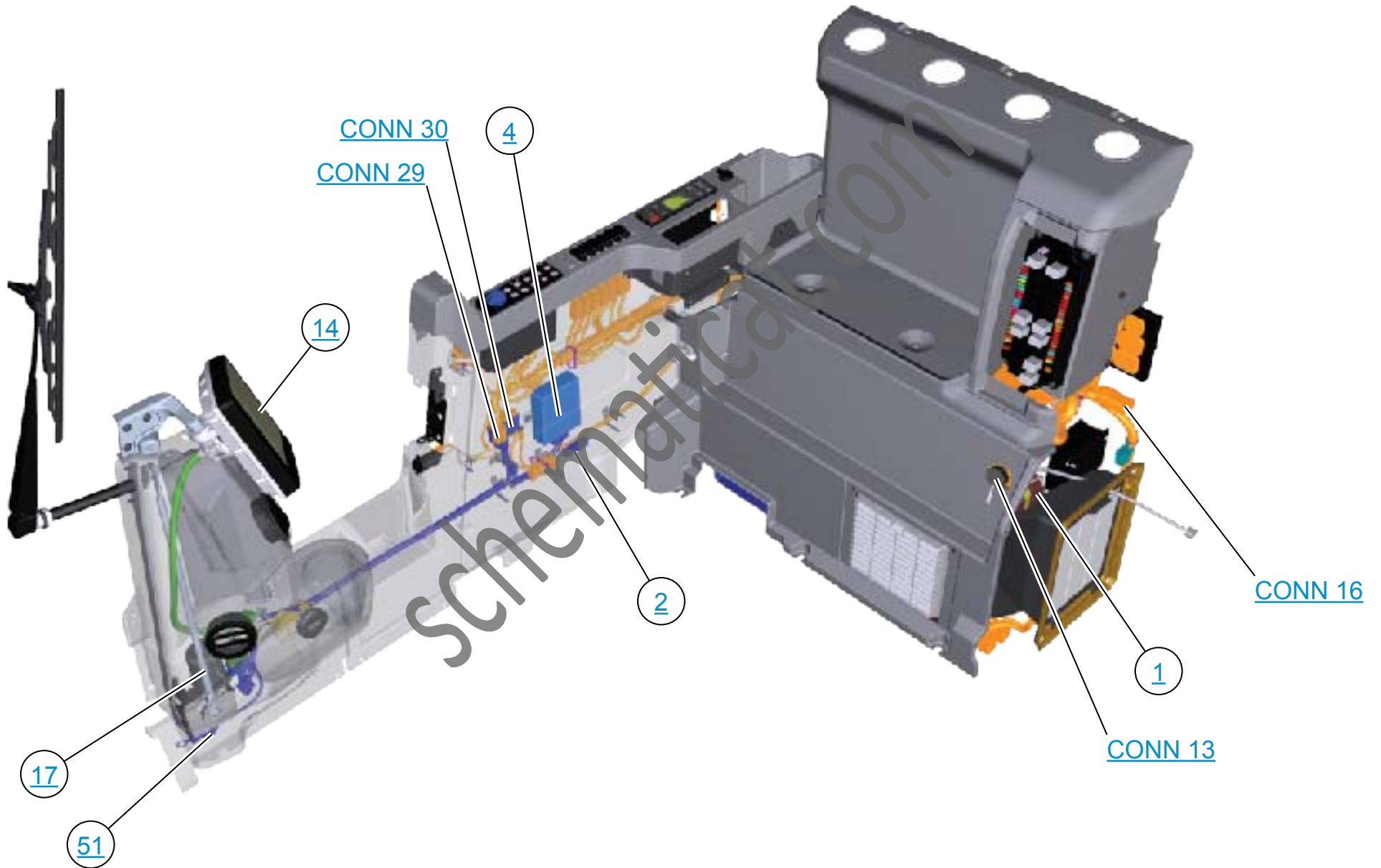
70

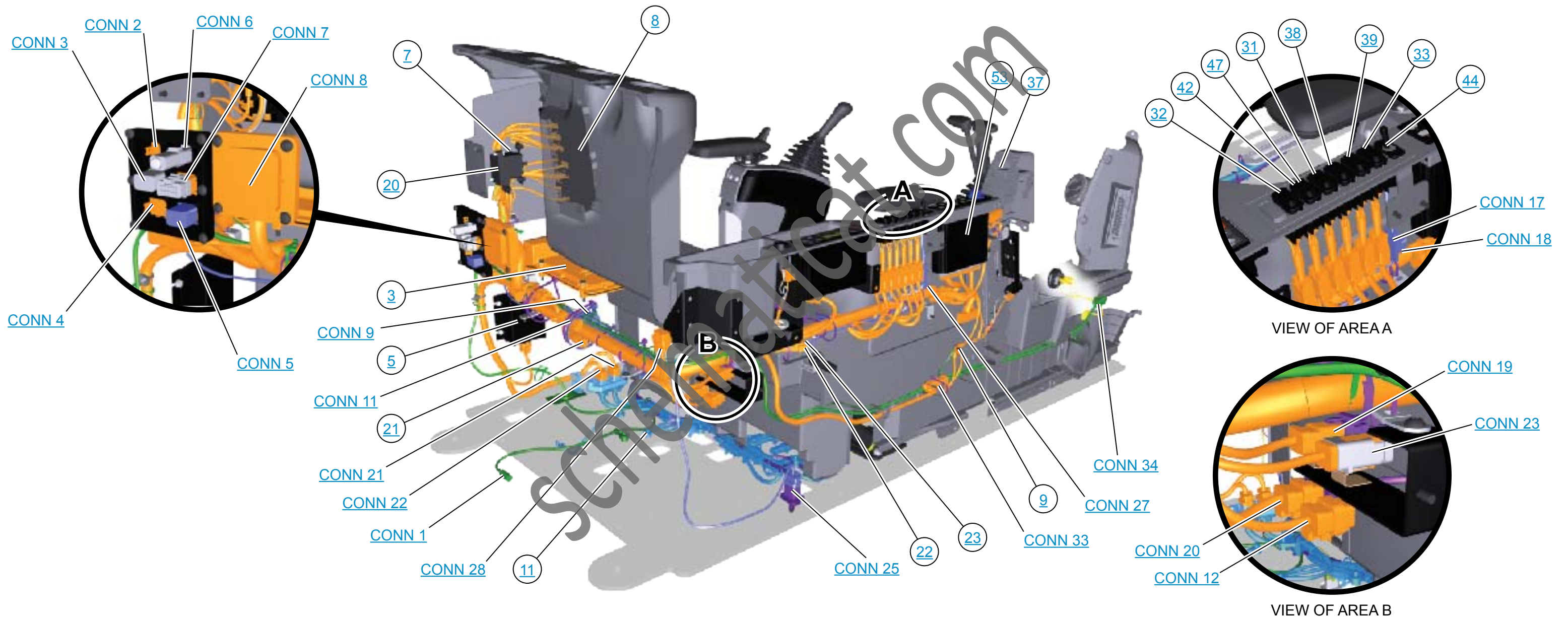
HARNESS C

CONN 43

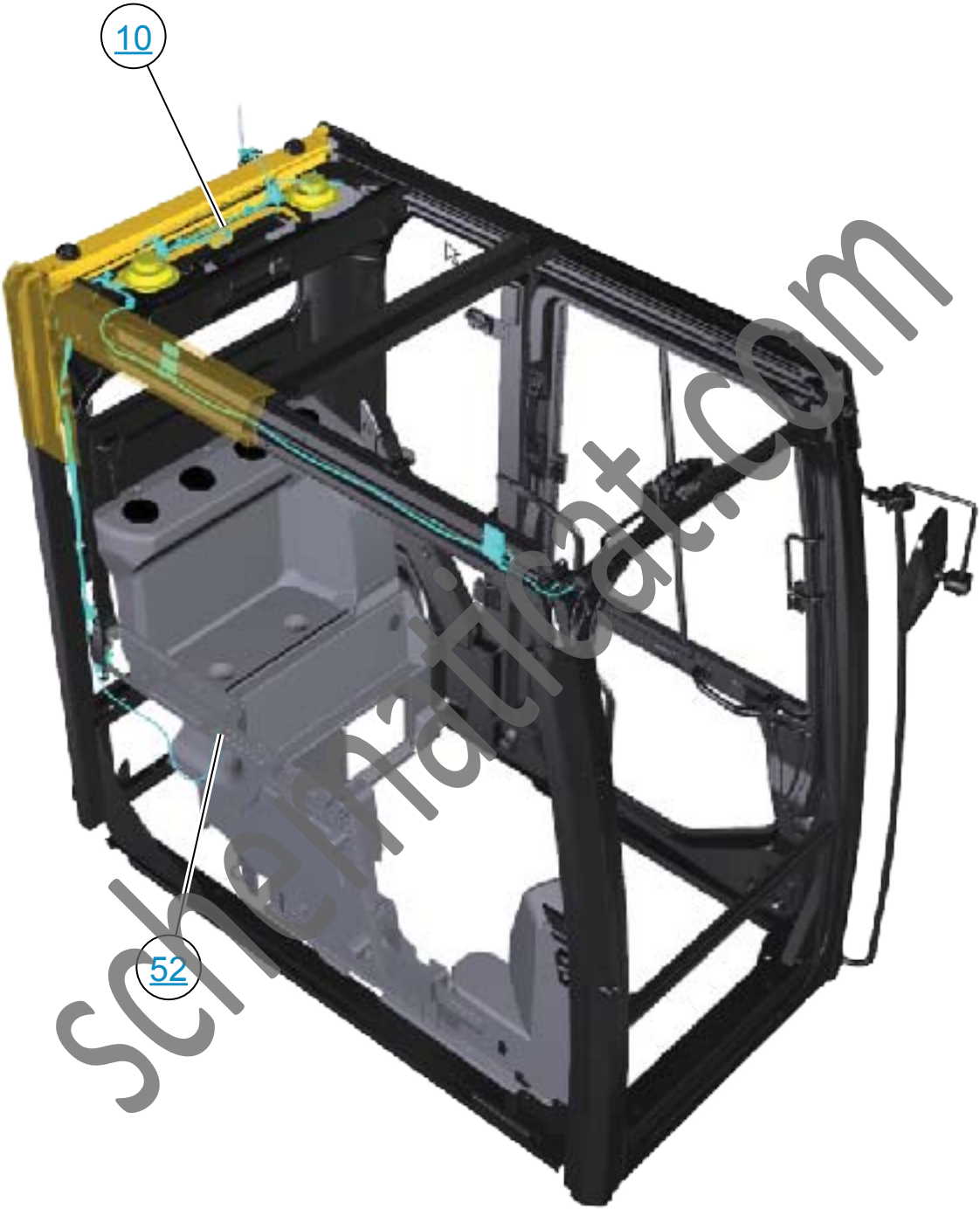


# CAB RH CONSOLE VIEW

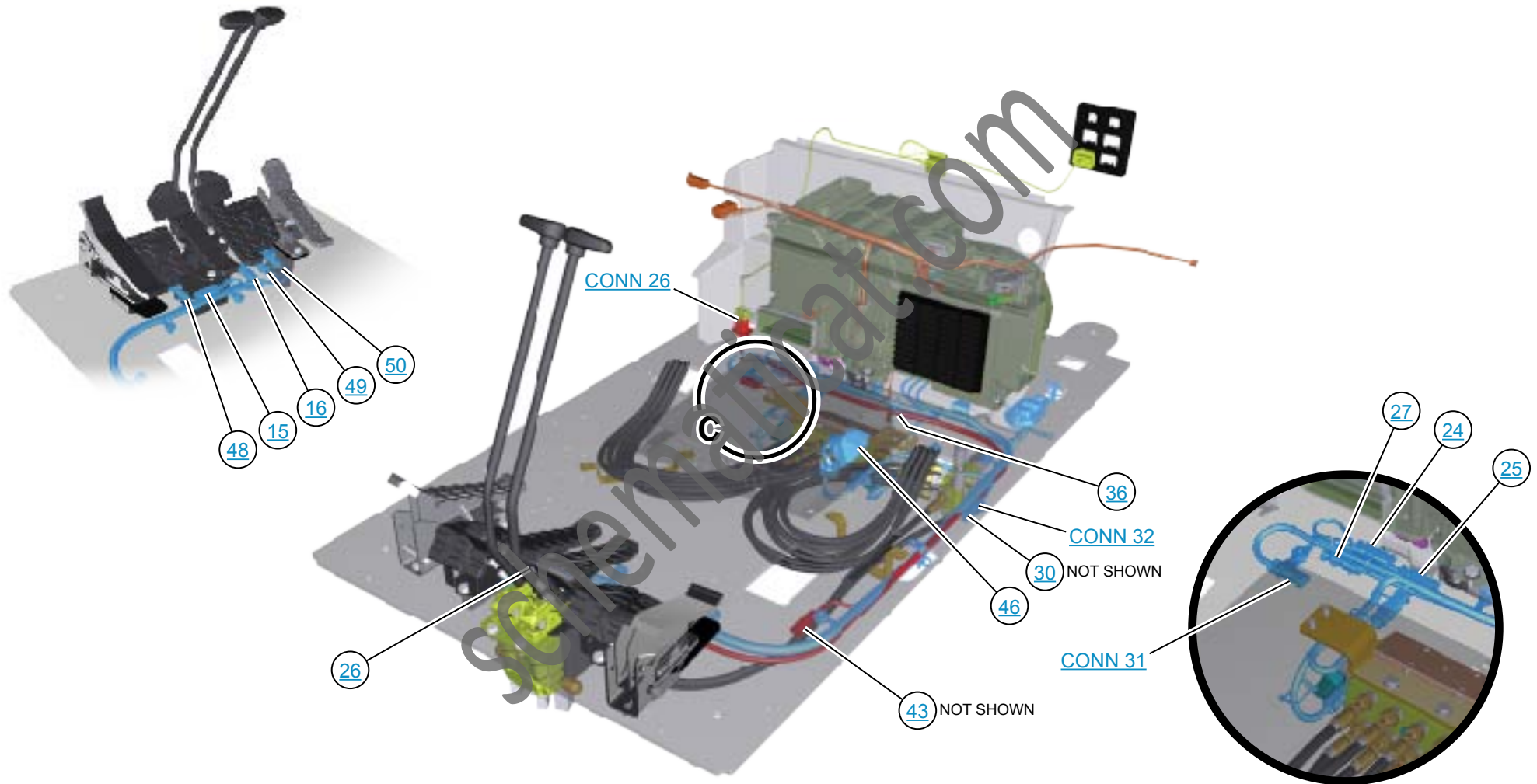




# CAB FRAME VIEW

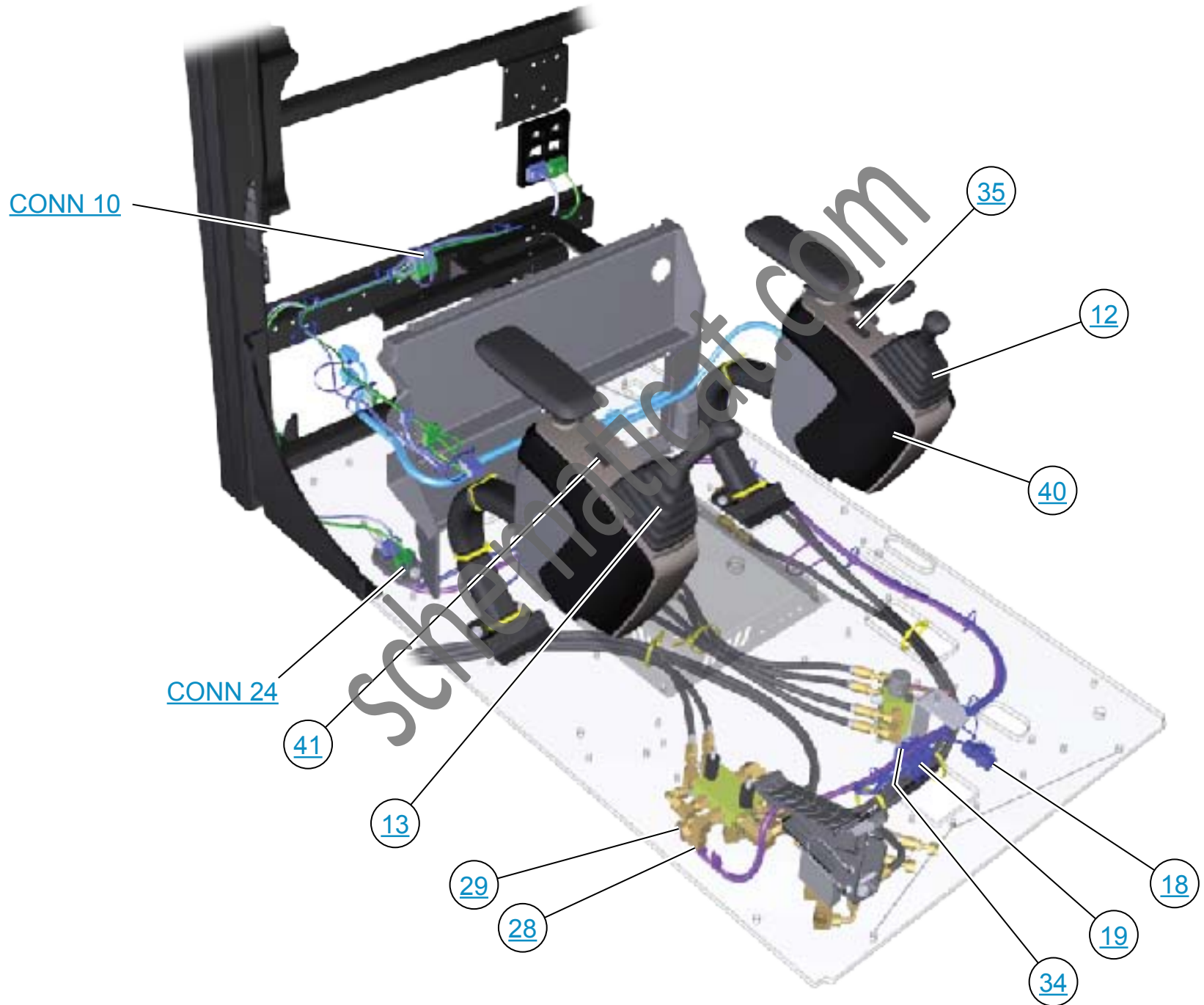


# CAB FLOOR VIEW



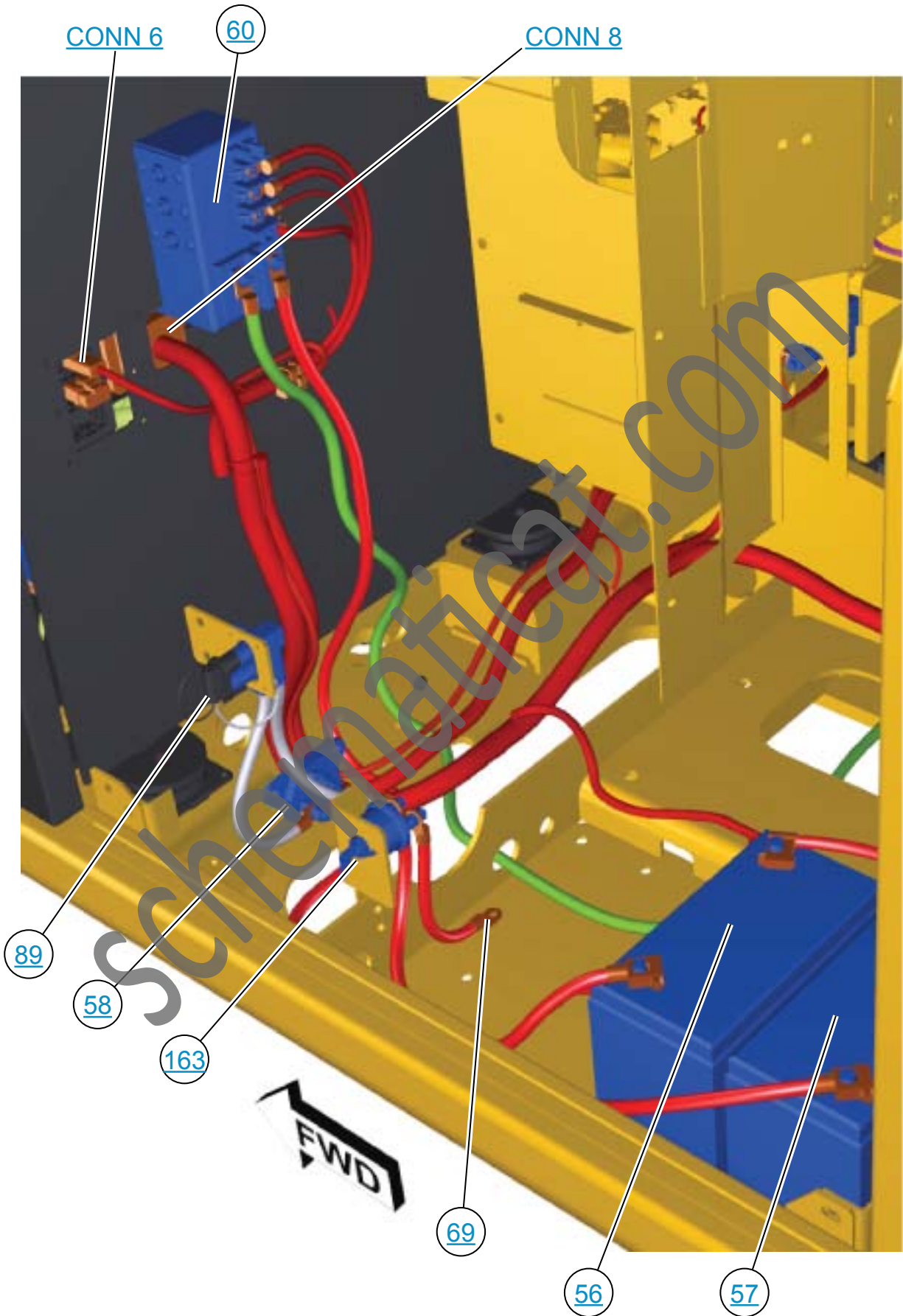
VIEW OF AREA C

# CAB CONTROLS VIEW



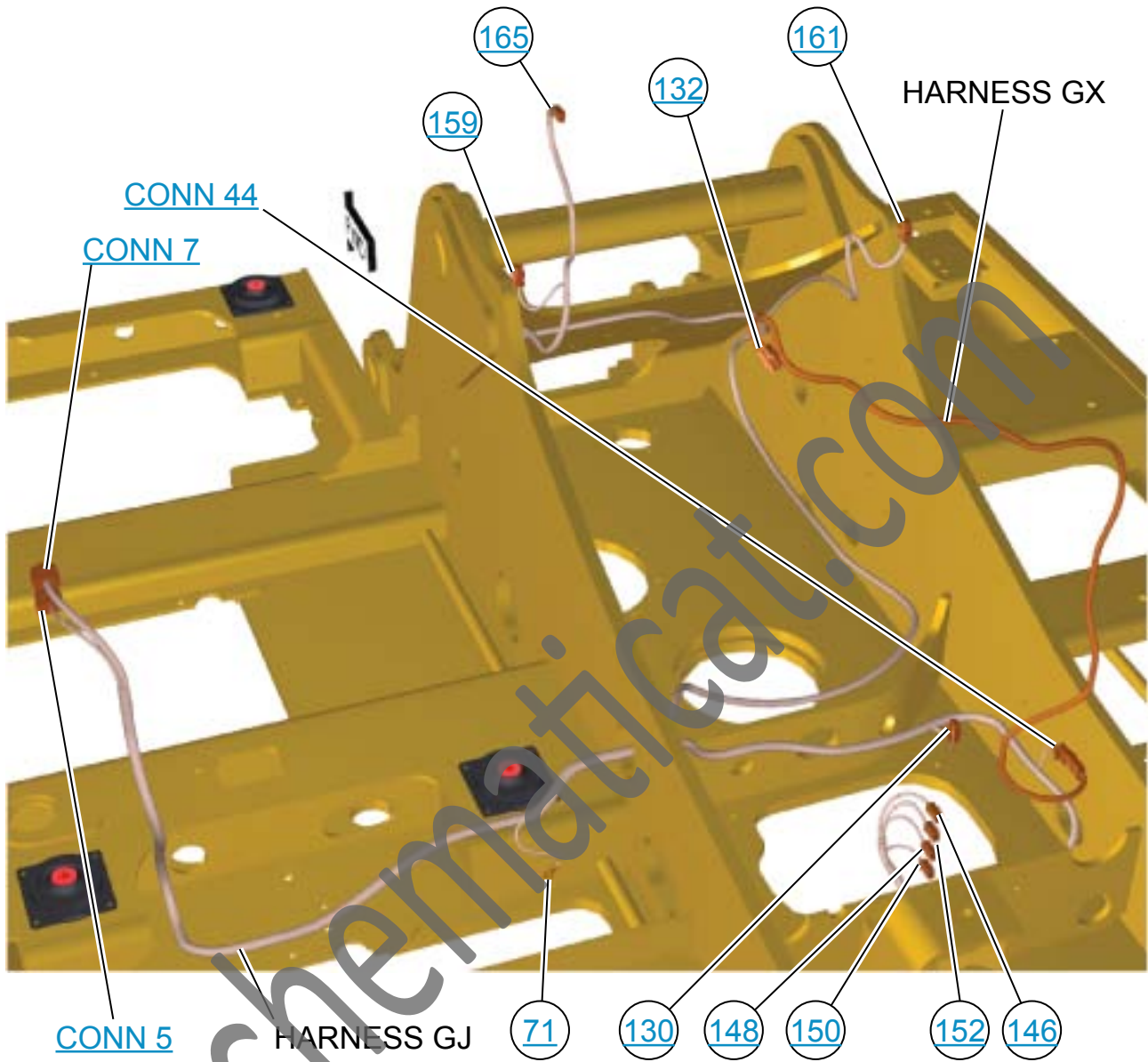


# BATTERY ROOM VIEW





# TOOL 10 with HAMMER VIEW



# TOOL 20, 21, 25 and MEDIUM CIRCUIT VIEW

