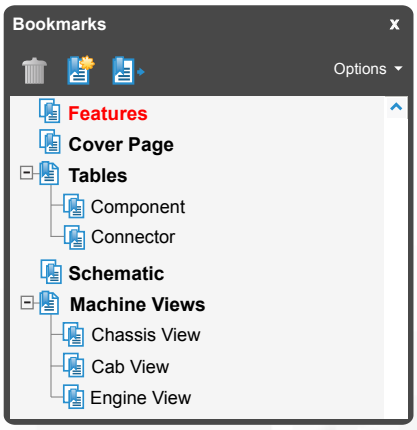
INTERACTIVE SCHEMATIC

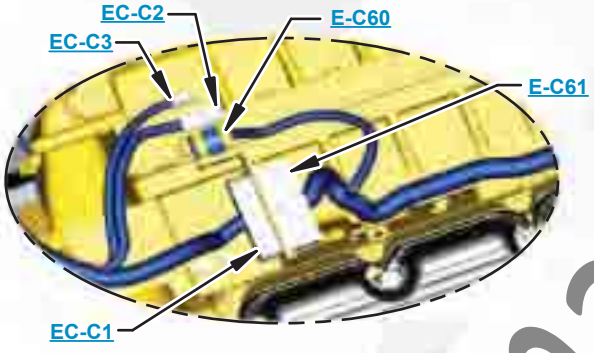


The Bookmarks panel will allow you to quickly navigate to points of interest.

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*



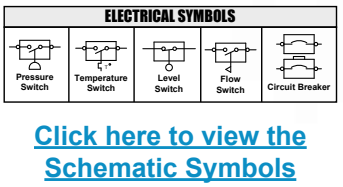
Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

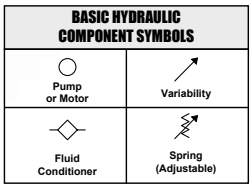
Click here to save a copy of this interactive schematic to your desktop

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"





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 (A B / P T) | Shifted Position (A B / P T) | 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

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	MAIN AUX. 2-Section Pump
Attachment	Pump: Variable and Pressure Compensated

Hydraulic Energy Triangles | Pneumatic

PILOT CONTROL

RELEASED PRESSURE

External Return | Internal Return

REMOTE SUPPLY PRESSURE

Simplified | Complete | Internal Supply Pressure

ROTATING SHAFTS

Unidirectional | Bidirectional

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

Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.

Switch (Normally Open): 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.

Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.

Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.

Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.

Reed Switch: 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.

Sender: 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.

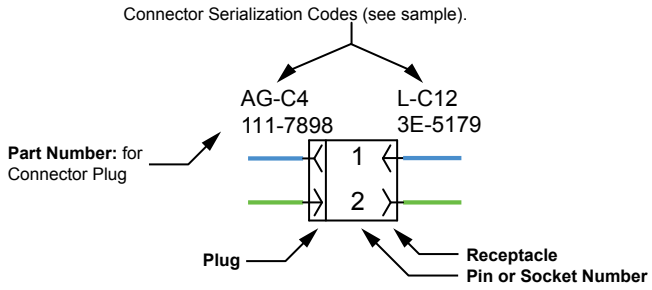
Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.

Solenoid: 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.

Magnetic Latch Solenoid: 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.

HARNESS AND WIRE SYMBOLS

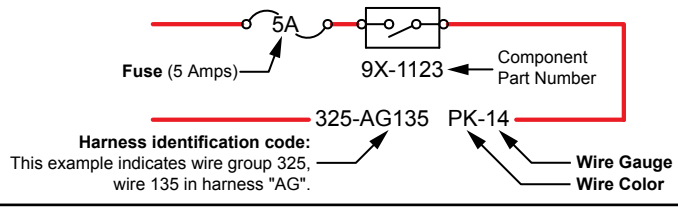
Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).

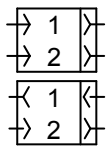


Harness Identification Letter(s): (A, B, C, AA, AB, AC, ...)

Harness Connector Serialization Code: The "C" stands for "Connector" and the number indicates which connector in the harness (C1, C2, C3, ...)

L-C12
3E-5179





Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.

Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.

CATERPILLAR®

UENR1735-04
March 2013

Schematic

735B and 740B Articulated Truck
740B Ejector Articulated Truck
Electrical System

735B:	740B:	740B EJ:
L4D1-UP	L4E1-UP	L4F1-UP
T4P1-UP	T4R1-UP	T4S1-UP

Volume 1 of 2: Chassis
Volume 2 of 2: Cab

Printed in U.S.A.

COMPONENT LOCATION
Volume 1 of 2 - Chassis

Component Location

Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Actuator - ARD Air Flow Control	D-3	1	Sensor - Engine Speed #2 (Cam) (L4D, L4E, L4F)	F-10	86
Actuator - ARD Fuel Pressure #1 Cont	C-2	2	Sensor - Front Left Hand Wheel Speed	C-16	87
Actuator - ARD Fuel Pressure #2 Cont	C-2	3	Sensor - Front Right Hand Wheel Speed	C-16	88
Alarm - Backup	K-18	4	Sensor - Fuel Pressure After Filter (T4P, T4R, T4S)	G-10	89
Alternator (L4D, L4E, L4F)	I-5	5	Sensor - Fuel Pressure After Filter (L4D, L4E, L4F)	D-9	90
Battery A	I-4	6	Sensor - Fuel Temp (T4P, T4R, T4S)	G-10	91
Battery B	I-4	7	Sensor - Fuel Temp (L4D, L4E, L4F)	D-9	92
Breaker - Alternator (L4D, L4E, L4F)	J-4	8	Sensor - Hydraulic Oil Temp	L-4	93
Breaker - CCEM Fan	J-4	9	Sensor - IAD ACC Pressure	C-16	94
Breaker - Engine ECM	J-4	10	Sensor - Intake Manifold Pressure (IMP) (T4P, T4R, T4S)	H-11	95
Breaker - Main	J-4	11	Sensor - Intake Manifold Pressure (L4D, L4E, L4F)	E-10	96
Breaker - Main 2	J-4	12	Sensor - Intake Manifold Temp (L4D, L4E, L4F)	E-10	97
Bus Bar	I-4	13	Sensor - Intermediate Speed	H-16	98
Camera	J-18	14	Sensor - Low Oil Pressure	B-17	99
Camera 1	L-17	15	Sensor - Mid Left Hand Wheel Speed	G-18	100
Coil - ARD Ignition Xformer Primary	B-2	16	Sensor - Mid Right Hand Wheel Speed	F-18	101
Compressor - A/C Clutch Coil 1	H-1	17	Sensor - NRS Differential Pressure (T4P, T4R, T4S)	H-11	102
Control - Air Cooled (T4P, T4R, T4S)	L-13	18	Sensor - NRS Intake Pressure (T4P, T4R, T4S)	H-11	103
Control - Air Cooled (L4D, L4E, L4F)	F-12	19	Sensor - NRS Temp (T4P, T4R, T4S)	J-10	104
Control - CCEM Fan	G-4	20	Sensor - OTG Oil Temp	B-15	105
Controller - ARD Air Flow	D-2	21	Sensor - Parking Brake Pressure	H-18	106
Ground - Cab - NOT SHOWN	A-9	22	Sensor - Parking Brake Pressure 2	K-17	107
Ground - Engine Block	H-5	23	Sensor - Rear Left Hand Wheel Speed	F-18	108
Ground - Frame	H-7	24	Sensor - Rear Right Hand Wheel Speed	F-18	109
Ground - Frame - NOT SHOWN	A-9	25	Sensor - Soot	D-5	110
Ground - Frame 2	H-6	26	Sensor - Steering Oil Temp	K-4	111
Ground - Steer Motor	I-6	27	Sensor - TC Oil Temp	D-6	112
Heater - ARD Fuel Nozzle	C-4	28	Sensor - Transmission Oil Temp	H-16	113
Horn - High Tone	G-3	29	Sensor - Transmission Out Speed A	H-16	114
Horn - Low Tone	G-3	30	Sensor - Transmission Out Speed B	H-16	115
Injector 1 (T4P, T4R, T4S)	I-9	31	Sensor - Transmission T/C Output Speed	F-17	116
Injector 1 (L4D, L4E, L4F)	G-8	32	Solenoid - ATAAC Demand Fan	H-7	117
Injector 2 (T4P, T4R, T4S)	I-9	33	Solenoid - Demand Fan 1	A-16	118
Injector 2 (L4D, L4E, L4F)	F-8	34	Solenoid - Electric Fuel Pump	I-6	119
Injector 3 (T4P, T4R, T4S)	H-9	35	Solenoid - Front XAD	B-15	120
Injector 3 (L4D, L4E, L4F)	F-8	36	Solenoid - Fuel Prime	I-6	121
Injector 4 (T4P, T4R, T4S)	H-9	37	Solenoid - IAD Lock	B-16	122
Injector 4 (L4D, L4E, L4F)	F-8	38	Solenoid - IAD Lock ACC Charge	B-16	123
Injector 5 (T4P, T4R, T4S)	H-9	39	Solenoid - Lock Up Clutch	G-16	124
Injector 5 (L4D, L4E, L4F)	F-8	40	Solenoid - Mid XAD	G-18	125
Injector 6 (T4P, T4R, T4S)	H-9	41	Solenoid - Mid XAD 1	J-17	126
Injector 6 (L4D, L4E, L4F)	F-8	42	Solenoid - NRS Flow Bal Valve Actuator Up (T4P, T4R, T4S)	I-11	127
Module - Aftertreatment #1 ID	D-2	43	Solenoid - NRS Valve Actuator (T4P, T4R, T4S)	J-10	128
Motor - Electric Fuel Pump (L4D, L4E, L4F)	G-1	44	Solenoid - Parking Brake	H-18	129
Motor - Hood Actuator	H-4	45	Solenoid - Parking Brake 1	K-17	130
Motor - Second Steering	I-6	46	Solenoid - Rear XAD	G-18	131
Motor - Starter	I-5	47	Solenoid - Rear XAD 1	K-17	132
Pump - Autolube	E-5	48	Solenoid - Start Aid	I-6	133
Receptical - Remote Start	I-4	49	Solenoid - Start Aid (L4D, L4E, L4F)	G-1	134
Relay - ARD Fuel Nozzle Heater	B-2	50	Solenoid - Transmission Clutch 1	G-16	135
Relay - Secondary Steer	I-4	51	Solenoid - Transmission Clutch 2	G-16	136
Relay - Start	I-6	52	Solenoid - Transmission Clutch 3	G-16	137
Resistor - CAN A	A-4	53	Solenoid - Transmission Clutch 4	G-16	138
Resistor - CAN A (L4D, L4E, L4F)	G-4	54	Solenoid - Transmission Clutch 5	G-16	139
Resistor - CAN B	A-15	55	Solenoid - Transmission Clutch 6	F-16	140
Resistor - Term (T4P, T4R, T4S)	I-10	56	Solenoid - Transmission Clutch 7	G-16	141
Sender - Fuel Level	F-4	57	Solenoid - Lower Valve	H-17	142
Sensor As - Inertial	B-15	58	Solenoid - Raise Valve	H-18	143
Sensor - Aftertreat Gas DPF In	C-2	59	Spark Plug	B-2	144
Sensor - Aftertreatment #1 Gas Temp	C-2	60	Suppresor - Arc 1	I-1	145
Sensor - Aftertreatment 1 Sec Air Pressure	B-2	61	Suppresor - Secondary Steering	J-4	146
Sensor - Air Filter Rest Diff Pressure	I-6	62	Switch - A/C Pressure 1	H-1	147
Sensor - Air Filter Rest Diff Pressure (L4D, L4E, L4F)	H-1	63	Switch - Auto Lube	G-18	148
Sensor - Air Inlet Temp Filter	J-6	64	Switch - Auto Lube 1	K-17	149
Sensor - Air Inlet Temp Filter (L4D, L4E, L4F)	H-1	65	Switch - Disconnect	H-4	150
Sensor - ARD Fuel Pressure #1 (Pilot)	C-2	66	Switch - Elevated Engine Idle	J-8	151
Sensor - ARD Fuel Pressure #2 (Main)	C-2	67	Switch - Engine Shutdown	K-5	152
Sensor - ATAAC Fan Speed	H-7	68	Switch - Front Brake Temp	B-17	153
Sensor - Barometric Pressure (T4P, T4R, T4S)	H-11	69	Switch - Hydraulic Tank Filter Bypass	L-4	154
Sensor - Barometric Pressure (L4D, L4E, L4F)	F-10	70	Switch - Manual Fuel Prime	I-6	155
Sensor - Body Up	J-18	71	Switch - Manual Fuel Prime (L4D, L4E, L4F)	G-1	156
Sensor - Charge Air Cool #1 Out (T4P, T4R, T4S)	I-10	72	Switch - OTG Filter Bypass	C-17	157
Sensor - Coolant Temp (T4P, T4R, T4S)	G-8	73	Switch - OTG Low Oil Pressure	B-17	158
Sensor - Coolant Temp (L4D, L4E, L4F)	E-10	74	Switch - Rear Brake Temp	G-18	159
Sensor - Cooling Fan Speed	B-17	75	Switch - Rear Brake Temp 1	K-17	160
Sensor - Crankcase Pressure	I-10	76	Switch - Steering Pressure	F-4	161
Sensor - DPF #1 Intake Temp	C-2	77	Switch - Steering Tank Filter Bypass	K-4	162
Sensor - DPF Delta P	A-3	78	Switch - Transmission Filter Bypass TH38 - NOT SHOWN	B-15	163
Sensor - DPF Intake Pressure #1	B-2	79	Valve - Brake 1/2 (T4P, T4R, T4S)	H-8	164
Sensor - Engine Oil Pressure (T4P, T4R, T4S)	H-11	80	Valve - Brake 1/2 (L4D, L4E, L4F)	F-8	165
Sensor - Engine Oil Pressure (L4D, L4E, L4F)	E-10	81	Valve - Brake 3/4 (T4P, T4R, T4S)	H-8	166
Sensor - Engine Speed	H-16	82	Valve - Brake 3/4 (L4D, L4E, L4F)	F-8	167
Sensor - Engine Speed #1 (Crank) (T4P, T4R, T4S)	H-11	83	Valve - Brake 5/6 (T4P, T4R, T4S)	H-8	168
Sensor - Engine Speed #1 (Crank) (L4D, L4E, L4F)	F-10	84	Valve - Brake 5/6 (L4D, L4E, L4F)	F-8	169
Sensor - Engine Speed #2 (Cam) (T4P, T4R, T4S)	H-11	85			

COMPONENT LOCATION
Volume 2 of 2 - Cab

Component Location					
Component	**Schematic Location**	**Machine Location**	**Component**	**Schematic Location**	**Machine Location**
Air Seat	H-14	170	Resistor - CAN Data Link	F-5	197
Alarm - Action	I-13	171	Resistor - CAN Data Link A	A-6	198
Brake Pedal GP.	D-9	172	Resistor - CAN Data Link B	E-5	199
Coil - MSS Exciter	A-11	173	Resistor - HVAC	B-1	200
Column Switch AS.	B-4	174	Sensor - Throttle	F-9	201
Converter - 24V-12V	B-1	175	Switch - A/C	G-13	202
Display - Indication	E-11	176	Switch - CRS	J-15	203
ECM - Chassis	J-5	177	Switch - Dimmer	E-13	204
ECM - Color Multi-Purpose Display (CMPD)	F-11	178	Switch - Dome Lamp	A-6	205
ECM - Product Link / VIMS	G-8	179	Switch - Fan Speed	D-11	222
ECM - Transmission	J-4	180	Switch - Hazard	E-13	206
Flasher	A-6	181	Switch - Head Side Lamp	D-13	207
Fuse and Relay Block AS.	J-11	182	Switch - Heated Mirror	G-13	208
Ground - Cab	C-5	183	Switch - Hood	H-13	209
Lever - Shift / Hoist Quad	E-9	184	Switch - Horn	A-4	210
Module - Intermittent Wiper Delay	A-4	185	Switch - Key	A-10	211
Motor - Blower	B-1	186	Switch - LH Mirror	I-16	212
Motor - Front Washer	C-3	187	Switch - Long Range Lamps	J-15	213
Motor - Front Wiper	B-3	188	Switch - Parking Brake	E-10	214
Motor - Rear Washer	C-3	189	Switch - Rear Wiper	F-13	215
Motor - Rear Wiper	I-16	190	Switch - Retarder	A-4	216
MSS Key Reader	B-4	191	Switch - RH Mirror	J-16	217
Outlet - 12V Power	H-13	192	Switch - Secondary Steering	F-13	218
Radio - Product Link	F-5	193	Switch - Worklamp	D-13	219
Relay - Headlamp	A-4	194	Thermostat - HVAC	B-2	220
Relay - Main	H-11	195	Valve - Water	B-1	221
Resistor - Auto Idle Cooldown Override	B-1	196			

CONNECTOR LOCATION
Volume 1 of 2 - Chassis

Connector Location			
Connector Number	Schematic Location	Connector Number	Schematic Location
CONN 1	F-18	CONN 24	E-11
CONN 2	F-18	CONN 25	D-11
CONN 3	K-17	CONN 26	F-10
CONN 4	C-16	CONN 27	H-10
CONN 5	D-16 , K-15	CONN 28	I-10
CONN 6	D-16	CONN 29	G-8
CONN 7	E-16 , K-15	CONN 30	B-8
CONN 8	E-16	CONN 31	C-8
CONN 9	F-16	CONN 32	D-8
CONN 10	G-15	CONN 33	E-8
CONN 11	B-15	CONN 34	L7 , G-2
CONN 12	A-14	CONN 35	H-7
CONN 13	C-14 , G-14	CONN 36	A-6
CONN 14	E-13	CONN 37	F-6
CONN 15	D-13	CONN 38	G-6
CONN 16	C-13	CONN 39	J-6
CONN 17	B-13	CONN 40	K-6
CONN 18	D-11, G-12	CONN 41	K-6
CONN 19	G-12 , D-11 , H-2	CONN 42	F-5
CONN 20	I-11 , C-4	CONN 43	B-4
CONN 21	G-11	CONN 44	K-3
CONN 22	F-11 , G-10	CONN 45	F-3
CONN 23	F-11 , A-5		

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

CONNECTOR LOCATION
Volume 2 of 2 - Cab

Connector Location	
Connector Number	**Schematic Location**
CONN 15	G-1
CONN 16	F-1
CONN 17	E-1
CONN 30	H-1
CONN 31	I-1
CONN 32	I-1
CONN 33	J-1
CONN 50	J-14
CONN 51	J-14
CONN 52	J-14
CONN 53 - To CB Radio	I-14
CONN 54	I-14
CONN 55 - To X Axle Lock Switch	F-13
CONN 56	H-13
CONN 57	B-11
CONN 58	C-11
CONN 59	E-11
CONN 60	H-8
CONN 61 - ET Connector	H-8
CONN 62 - Service Connector	G-8
CONN 63 - Apps ECM (ATCH)	F-8
CONN 64	E-8
CONN 65	D-8
CONN 66	C-8
CONN 67	B-8
CONN 68	A-8
CONN 69	C-5
CONN 70 - To Differential Lock Switch	A-4
CONN 71	B-2, C-1

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.

CID / MID / FMI
Volume 2 of 2 - Cab

Failure Mode Identifiers (FMI)[1]	
FMI No.	**Failure Description**
0	Data valid but above normal operational range.
1	Data valid but below normal operational range.
2	Data erratic, intermittent, or incorrect.
3	Voltage above normal or shorted high.
4	Voltage below normal or shorted low.
5	Current below normal or open circuit.
6	Current above normal or grounded circuit.
7	Mechanical system not responding properly.
8	Abnormal frequency, pulse width, or period.
9	Abnormal update.
10	Abnormal rate of change.
11	Failure mode not identifiable.
12	Bad device or component.
13	Out of calibration.
14	Parameter failures.
15	Parameter failures.
16	Parameter not available.
17	Module not responding.
18	Sensor supply fault.
19	Condition not met.
20	Parameter failures.

[1]The FMI is a diagnostic code that indicates what type of failure has occurred.

SPECIFICATIONS AND RELATED MANUALS
Volume 1 of 2 - Chassis

Related Electrical Service Manuals	
Title	**Form Number**
Alternator: 272-1889	SENR4130
Starting Motor: 338-3454	SENR3860
Chassis Control: 304-5687	UENR0206
Transmission Control: 304-5687	UENR1226
Communication Gateway Control: 327-6002	UENR1227

Off-Machine Switch Specification

Part No.	Function	Actuate	Deactuate	Contact Position
114-5333	AC High/Low Pressure	275 to 1750 kPa[1] (39.9 to 253.8 psi)	- -	Normally Open[2]
227-6745	OTG Filter Bypass	293 ± 35 kPa 276 ± 28 kPa	179 kPa Min	Normally Closed
253-2673	Hydraulic Tank Filter Bypass	148 ± 28 kPa 138 ± 28 kPa	69 kPa Min	Normally Closed
253-2673	Steering Tank Filter Bypass	148 ± 28 kPa 138 ± 28 kPa	69 kPa Min	Normally Closed
313-5104	Steering Pressure	1200 kPa Max	700 ± 100 kPa	N/O & N/C, SPDT
341-6644	Transmission Filter Bypass TH38	448 ± 55 kPa (65 ± 8 psi)	- -	Normally Closed
369-1487	OTG Low Oil Pressure	113 kPa Max	70 ± 20 kPa	Normally Open

[1] With increasing pressure the closed condition can be maintained up to 2800 kPa (405 psi), with decreasing pressure the closed condition can be maintained down to 170 kPa (25 psi).

[2] Contact position at the contacts of the harness connector.

Resistor, Sender and Solenoid Specifications

Part No.	Component Description		Resistance (Ohms)[1]
9X-3506	Resistor	CAN B	120 ± 5%
134-2540	Resistor	CAN A CAN A (LRC) Term (C15)	120 ± 10%
152-8340	Solenoid	Parking Brake	32.6 ± 1.6
152-8340	Solenoid	Parking Brake 1	32.6 ± 1.6
196-2403	Solenoid	Lower Valve	5 ± 0.3
192-6443	Solenoid	Raise Valve	5 ± 0.3
211-2092	Solenoid	ATAAC Demand Fan	Nominal: 7.75 ± 1 Minimum: 5.81 ± 0.3 Maximum: 12.68
239-1134	Solenoid	Start Aid	20
239-1135	Solenoid	Start Aid (LRC)	20
244-3114	Solenoid	Lock Up Clutch	8.7 ± 0.4
244-3114	Solenoid	Transmission Clutch 1 - 7	8.7 ± 0.4
252-6322	Solenoid	Front XAD	8.7 ± 0.4
252-6322	Solenoid	Mid XAD	8.7 ± 0.4
252-6322	Solenoid	Rear XAD	8.7 ± 0.4
252-6323	Solenoid	Mid XAD 1	8.7 ± 0.4
252-6323	Solenoid	Rear XAD 1	8.7 ± 0.5
277-8863	Solenoid	IAD Lock ACC Charge	33.8
279-6530	Solenoid	Demand Fan 1	5
300-3556	Solenoid	Fuel Prime	31.1 ± 2.4
308-1267	Solenoid	IAD Lock	5 ± 0.3
335-3086	Sender	Fuel Level	Full: 239 - 255 Empty: 25-32
342-0636	Solenoid	NRS Valve Actuator (C15)	Nominal: 2.95 ± 0.2 Maximum: 4.73
344-6043	Solenoid	NRS Flow Bal Valve Actuator Up (C15)	235

[1] At room temperature unless otherwise noted.

SPECIFICATIONS AND RELATED MANUALS
Volume 2 of 2 - Cab

Related Electrical Service Manuals	
Title	**Form Number**
Cross Reference for Electrical Connectors:	REHS0970
CMPD Control:	UENR1227
Chassis Control:	UENR0206
Product Link/ VIMS Control:	UENR0215
Transmission Control:	UENR1226

Resistor Specifications			
Part No.	**Component Description**		**Resistance (Ohms)[1]**
174-3016	Resistor	CAN Data Link CAN Data Link A CAN Data Link B	120 ± 10%
257-5029	Resistor	HVAC	Terminals (1-2) 1.3 Terminals (2-3) 0.8 Terminals (3-4) 0.4

[1] At room temperature unless otherwise noted.

WIRE GROUP COLOR DESCRIPTIONS

- GROUND CIRCUIT
- WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
- WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON
- STARTING CIRCUIT
- STARTING AID CIRCUIT
- TRANSMISSION CIRCUIT
- MONITOR CIRCUIT
- CHASSIS CONTROL CIRCUIT
- T4P, T4R, T4S ENGINE CONTROL CIRCUIT
- HEATER AND AIR CONDITIONER CIRCUIT
- TURN SIGNAL / WIPER WASHER CIRCUIT
- L4D, L4E, L4F ENGINE CONTROL CIRCUIT
- CAT DATA LINK
- CAN DATA LINK A
- CAN DATA LINK B

OTHER COLOR DESCRIPTIONS

- HIGHWAYS

IDENT	PART NO.	CHG	DESCRIPTION
			HARNESS AS.
A	237-5042	00	REAR LAMPS
AC	336-2815	03	REAR CHASSIS-TIPPER (735/740 ONLY)
	336-2813	02	REAR CHASSIS-EJECTOR (740EJ ONLY)
	336-2814	00	REAR CHASSIS-TIPPER (LG WHEEL BASE)
AH	337-6519	03	MID AXLE
AK	337-6520	03	REAR AXLE
C	336-2808	04	FRONT CHASSIS
CA	368-7777	00	TRANSMISSION
CG	336-2818	03	CEM
CH	337-6318	03	FRONT AXLE
CJ	336-2820	03	ALTERNATOR
CL	368-7778	00	OTG
CM	336-2812	03	MAIN FAN
EN	363-0659	00	ENGINE
ER	356-5035	00	ENGINE (LRC)
FK	356-9948	00	FUEL JUMPER
	356-9948	00	FUEL JUMPER (LRC)
GC	356-1643	00	INTERNAL ENG W/BRAKE
	354-4753	00	INTERNAL ENG W/BRAKE (LRC)
H	301-8353	03	MIRROR RH
HA	336-2811	04	FENDER
HC	301-8354	03	MIRROR LH
HG	342-9212	02	STEER SW
J	336-2817	02	HITCH
NA	344-5734	00	CHARGE AIMPER (LRC)
NG	343-8408	00	COOLANT JUMPER
	357-7675	00	COOLANT JUMPER (LRC)
PH	363-0625	00	AFTERTREATMENT
TF	341-8378	02	ECPC TRANSMISSION
T	336-2810	03	HOOD
TA	336-2819	03	AIR CLEANER
TC	336-2816	03	FRONT CHASSIS BREAKER
TE	336-2821	02	ATAAC
TM	358-6076	01	AIR CLEANER (LRC ONLY)
U	341-8379	03	ECPC TRANSMISSION
UC	305-4315	06	ECPC TRANSMISSION
			WIRE AS.
CK	353-2235	00	BREAKER LINK
TH	353-2234	01	CAB BREAKER WIRE AS.
			CABLE AS.
AA	336-9305	03	STARTER
CC	206-0154	00	LINK
EE	336-9299	02	STARTER GROUND
FF	336-9301	02	DISCONNECT GROUND
GG	336-9298	02	BATTERY NEG
HH	336-9304	02	SEC STER RELAY TO MOTOR
JJ	336-9300	02	BATTERY TO BUS BAR
KK	336-9303	02	SEC STER MOTOR TO GND
LL	336-9302	03	SEC STER RELAY TO BUS
TT	336-9306	04	ALTERNATOR
PP	356-9741	01	START RECEPTACLE POS
AG	340-2284	02	ALTERNATOR GND
MM	7G-1060	00	CAB GND TO FRAME GND
SS	338-9969	03	BREAKER SUPPLY

ABBREV	COLOR
RD	RED
WH	WHITE
OR	ORANGE
YL	YELLOW
PK	PINK
BK	BLACK
GY	GRAY
PU	PURPLE
BR	BROWN
GN	GREEN
BU	BLUE

SYMBOL	DESCRIPTION
	CIRCUIT CONNECTED
	CIRCUIT NOT CONNECTED
	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
	CONNECTOR
H#	CIRCUIT GROUPING DESIGNATION
	ATCH WIRE, CABLE, COMPONENT
	SPLICE
o	BLADE, SPADE, RING OR SCREW TERMINAL

NOTE A: ELEVATED IDLE ENGINE SPEED SET SWITCH (DEALER FIT ONLY) GND WIRE CAN BE CONNECTED TO J1 PIN 5 OR 18 OR CHASSIS GND

AT SUB-SYSTEM SCHEMATIC REFERENCE		
APPLICATION	PART NUMBER	SHEET/LOCATION
ENGINE C15 LRC	336-6660	SHT1/ F11
ENGINE C15 STD/CEM	342-6362	SHT1/ J11
CAB	351-0870	

CALLOUTS

Callout Number (Machine Location from Component Locations Table) — (52) VALVE GP - CONTROL — Component Name
138-1234 — Part Number

THIS SCHEMATIC IS FOR THE 735B AND 740B ARTICULATED TRUCK, AND 740B EJECTOR ARTICULATED TRUCK ELECTRICAL SYSTEM

VOLUME 1 of 2: CHASSIS

MEDIA NUMBER: UENR1735-04

SCHEMATIC PART NUMBER: 351-0870, CHANGE: 00, VERSION: -

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 Systems Operations.

IDENT	PART NO.	CHG	DESCRIPTION
HARNESS AS.			
E	332-9706	7	MAIN CAB
F	332-9707	6	ROOF
K	354-7735	3	FUSE
L	379-2433	1	DASH
R	379-2434	1	BULKHEAD
W	332-9701	0	WIPER
CA	352-2194	0	HVAC
EA	332-9704	7	GEARSHIFT
FK	364-3066	1	LIGHT JUMPER
FL	364-3066	1	LIGHT JUMPER
KM	346-9671	2	SEAT
WIRE AS./CABLE AS.			
EK	346-8101	0	JUMPER
KA	354-7732	0	MAIN POWER RELAY
RC	200-5728	2	RADIO

MISC. REF. VIDEO CABLE PART NUMBERS

PART NUMBER	DESCRIPTION
283-0657	3 METER VIDEO CABLE
274-4477	5 METER VIDEO CABLE
283-0658	7.5 METER VIDEO CABLE
283-0659	9 METER VIDEO CABLE
274-4478	11 METER VIDEO CABLE
274-4479	16 METER VIDEO CABLE

SYMBOL	DESCRIPTION
	CIRCUIT CONNECTED
	CIRCUIT NOT CONNECTED
	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
	CONNECTOR
H#	CIRCUIT GROUPING DESIGNATION
- - -	ATCH WIRE, CABLE, COMPONENT
	SPLICE
o	BLADE, SPADE, RING OR SCREW TERMINAL

CALLOUTS

Callout Number (Machine Location from Component Locations Table) → (52) VALVE GP - CONTROL ← Component Name
138-1234 ← Part Number

ABBREV	COLOR
RD	RED
WH	WHITE
OR	ORANGE
YL	YELLOW
PK	PINK
BK	BLACK
GY	GRAY
PU	PURPLE
BR	BROWN
GN	GREEN
BU	BLUE

WIRE GROUP COLOR DESCRIPTIONS

	GROUND CIRCUIT
	WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
	WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON
	VOLTAGE CONVERTER OUTPUT CIRCUIT
	STARTING CIRCUIT
	TRANSMISSION CIRCUIT
	MONITOR CIRCUIT
	CHASSIS CIRCUIT
	MACHINE SECURITY CONTROL CIRCUIT
	ENGINE CONTROL CIRCUIT
	HEATER AND AIR CONDITIONER CIRCUIT
	TURN SIGNAL / WIPER WASHER CIRCUIT
	CAT DATA LINK
	CAN DATA LINK
	RS-232 / RS-485 DATA LINK
	CAN DATA LINK A
	CAN DATA LINK B

OTHER COLOR DESCRIPTIONS

	HIGHWAYS

AT SUB-SYSTEM SCHEMATIC REFERENCE

APPLICATION	PART NUMBER	SHEET/LOCATION
ENGINE C15 LRC	336-8660	SHT1/ F11
ENGINE C15 STD/CEM	342-6382	SHT1/ J11
CHASSIS	330-9004	-

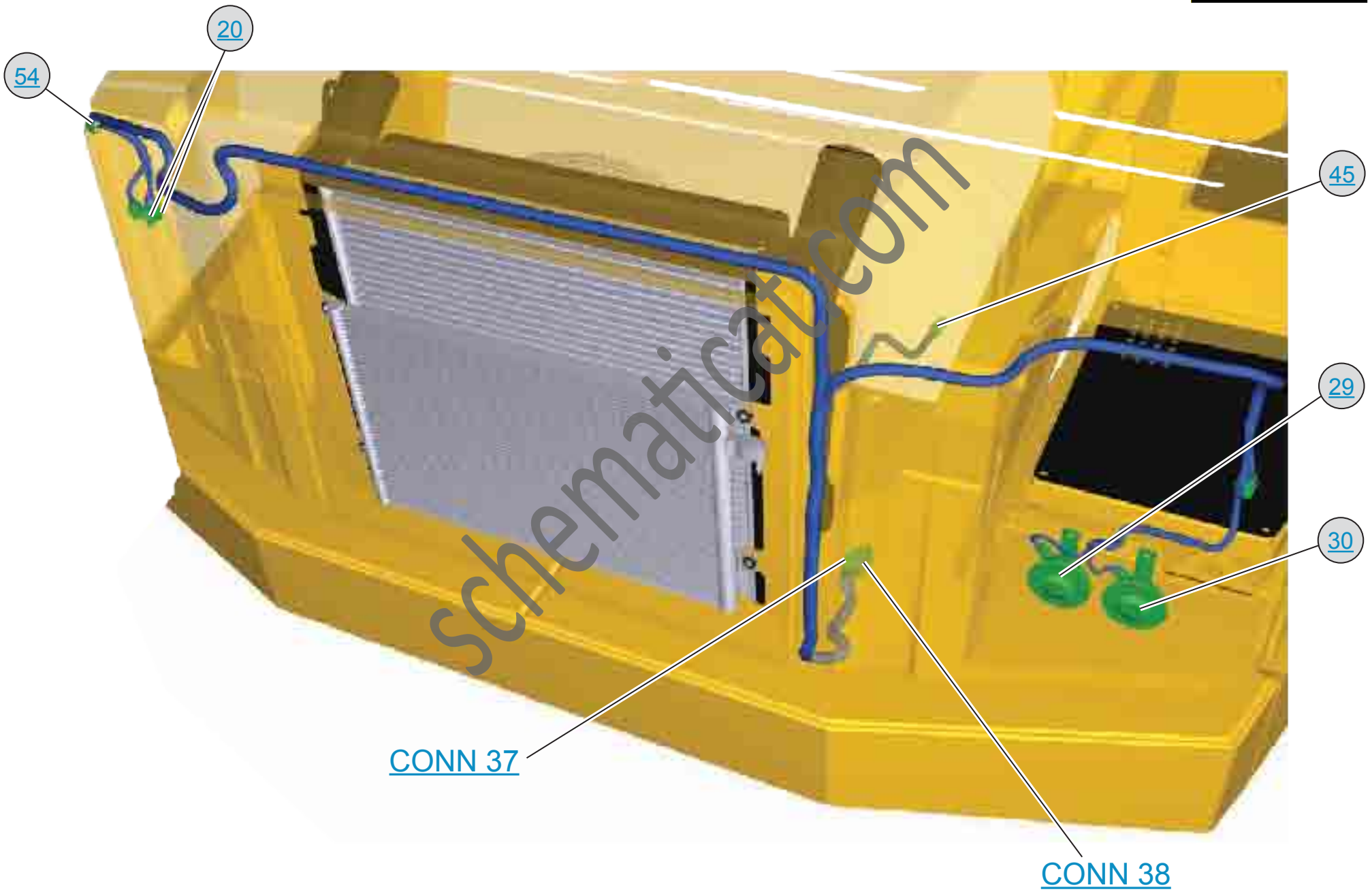
FUSE RATING	PART NO.
7.5A	141-2760
10A	113-8490
15A	113-8491
20A	113-8492

UNSWITCHED POWER FUSE	FUNCTION	RATING	CID	SWITCHED POWER FUSE	FUNCTION	RATING	CID
SLOT 1	NA			SLOT 1	NA		
SLOT 2	NA			SLOT 2	A/C	20	124-GN
SLOT 3	NA			SLOT 3	ARD	20	199-OR
SLOT 4	NA			SLOT 4	REAR WIPER MOTOR	15	110-GN
SLOT 5	NA			SLOT 5	FRONT WIPER	15	118-GY
SLOT 6	NA			SLOT 6	LONG RANGE LAMPS	15	103-YL
SLOT 7	FUEL PUMP RELAY	20	188-WH	SLOT 7	24V-12V CONV	10	A108-PK
SLOT 8	HOOD SWITCH	20	175-PK	SLOT 8	AIR SEAT	10	108-BU
SLOT 9	A4/ET	20	111-RD	SLOT 9	CIGAR LIGHTER	10	129-BU
SLOT 10	CHASSIS ECM 24V	20	132-PK	SLOT 10	AUTOLUBE	10	A110-WH
SLOT 11	HEAD SIDE LAMP	15	102-RD	SLOT 11	SOOT SENSOR	7A5	E741-YL
SLOT 12	FLASHER	10	A109-PU	SLOT 12	DIFF LOCK SWITCH	7A5	123-WH
SLOT 13	24V-12V CONV	10	130-GN	SLOT 13	SEC STR RELAY	7A5	192-GN
SLOT 14	INFO ECMs	10	125-OR	SLOT 14	KEY SWITCH	7A5	113-OR
SLOT 15	STOP LAMP	7A5	173-RD	SLOT 15	SHIFT/HOIST QUAD LEVER	7A5	165-YL
SLOT 16	REVERSE ALARM	7A5	121-RD	SLOT 16	BEACON	7A5	119-PK
SLOT 17	RH DOME LAMP	7A5	117-YL	SLOT 17	REAR FLOOD LAMP	7A5	116-BR
SLOT 18	HORN RELAY	7A5	114-RD	SLOT 18	HEATED MIRRORS	7A5	A111-GY
SLOT 19	CMPD AND IND DISPLAY	7A5	A112-OR	SLOT 19	INFO ECMs	7A5	147-PU
SLOT 20	KEY START SWITCH	7A5	105-RD	SLOT 20	SEC STR SWITCH	7A5	136-GN

THIS SCHEMATIC IS FOR THE 735B AND 740B ARTICULATED TRUCK, AND 740B EJECTOR ARTICULATED TRUCK ELECTRICAL SYSTEM
VOLUME 2 of 2: CAB
MEDIA NUMBER: UENR1735-04
SCHEMATIC PART NUMBER: 351-0870, CHANGE: 00, VERSION: -
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 Systems Operations.

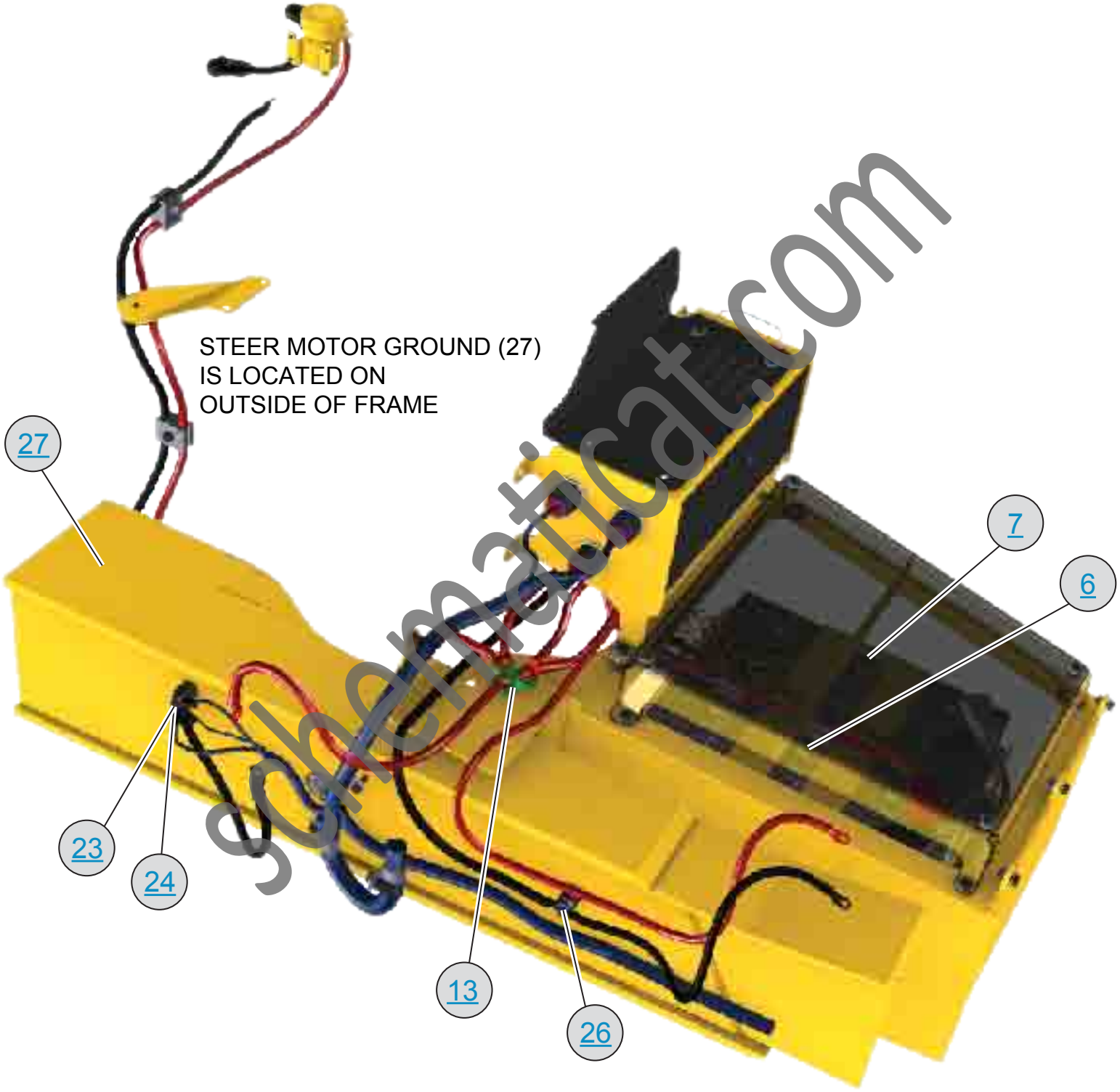
HOOD HARNESS VIEW

VIEW ALL CALLOUTS



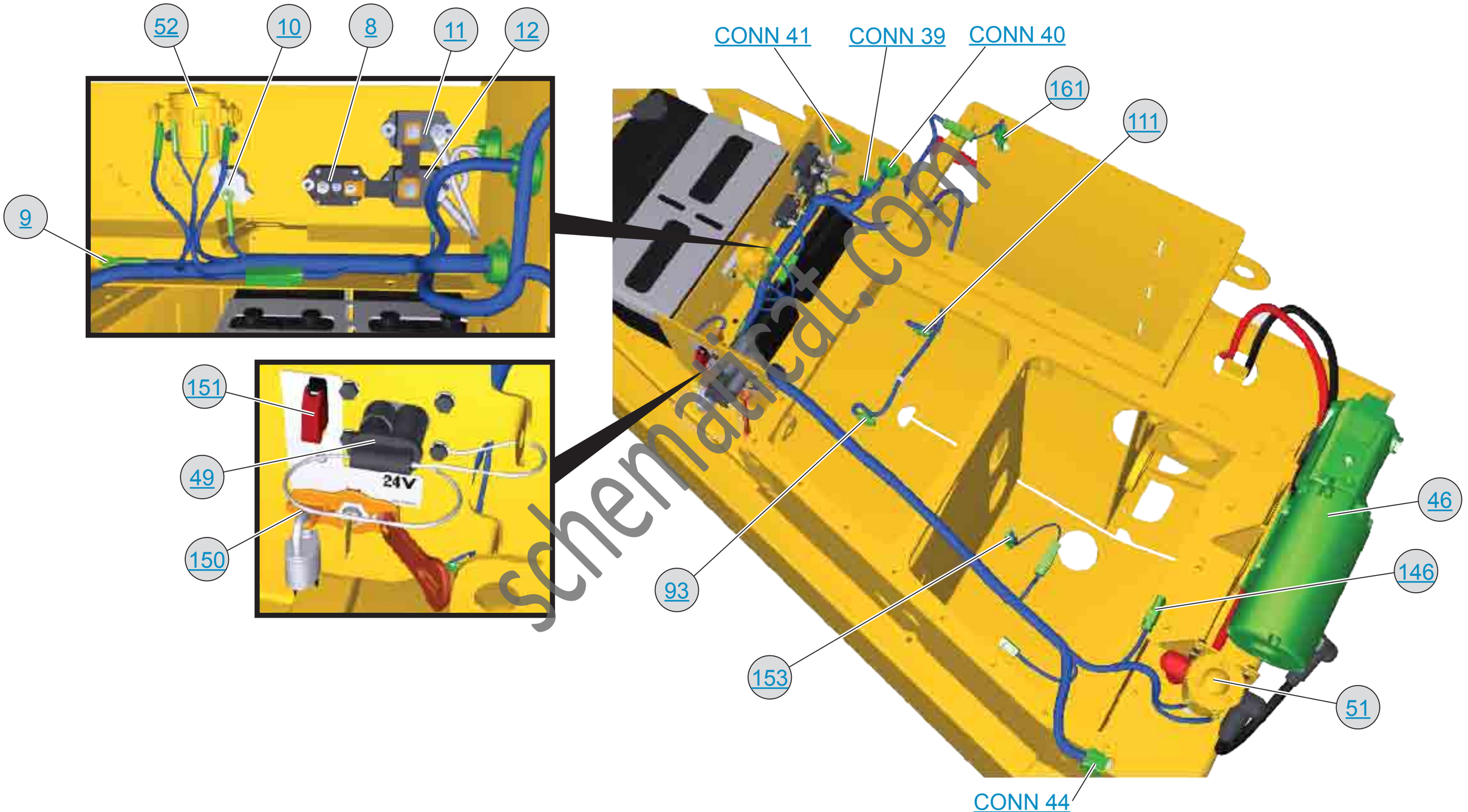
GROUND HARNESSES VIEW

VIEW ALL CALLOUTS



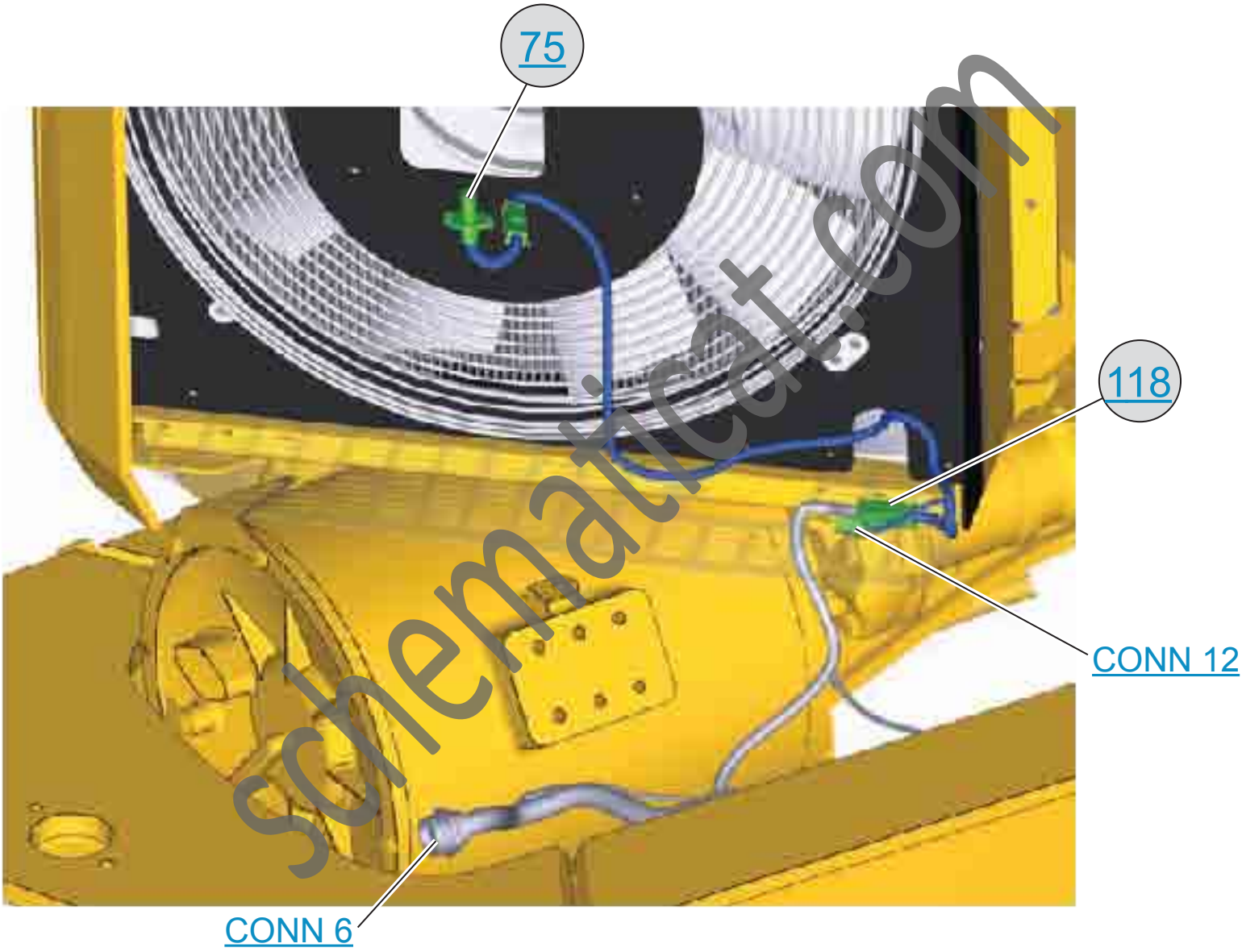
FRONT CHASSIS BREAKER HARNESS VIEW

VIEW ALL CALLOUTS



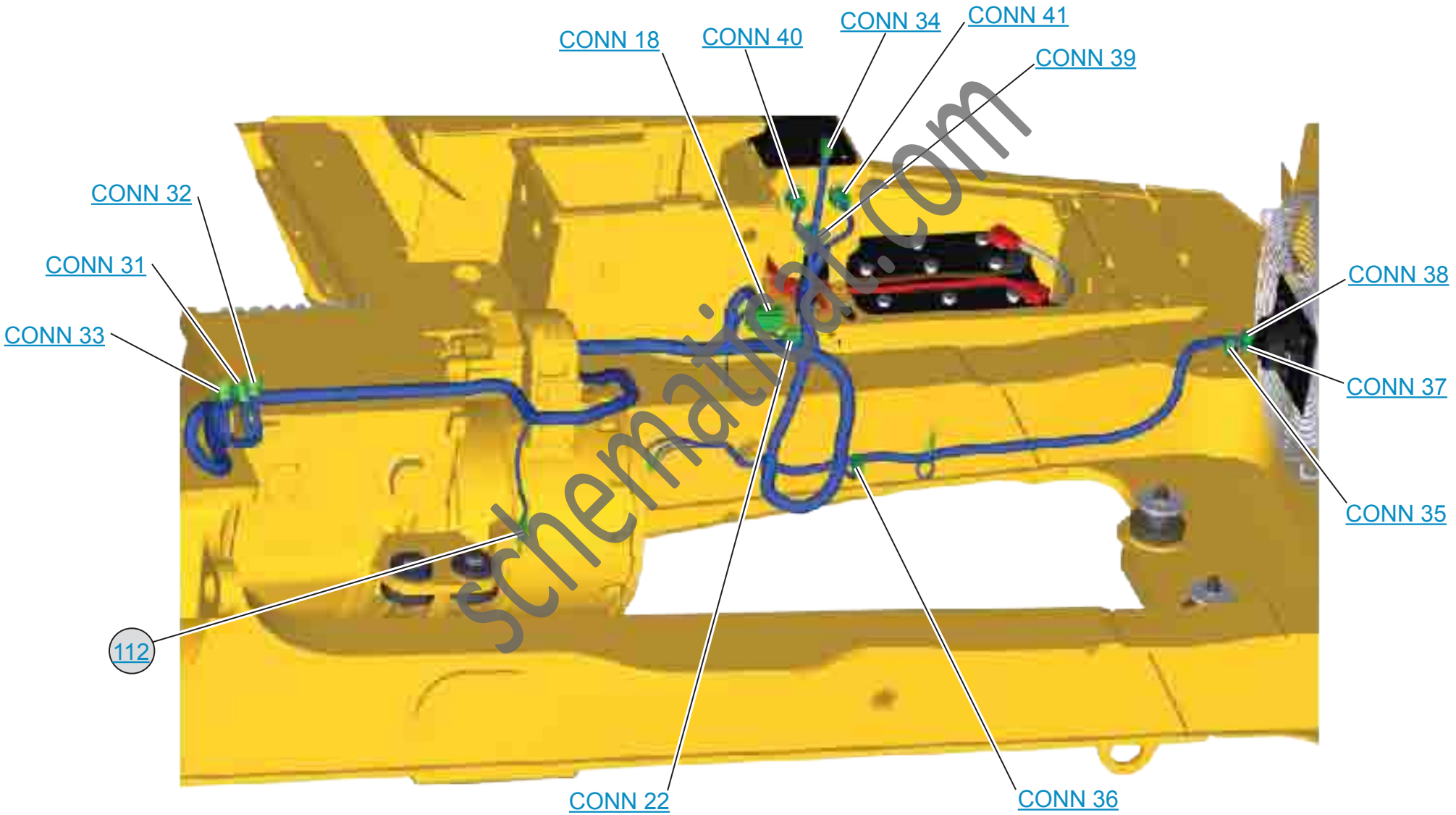
MAIN FAN HARNESS VIEW

VIEW ALL CALLOUTS



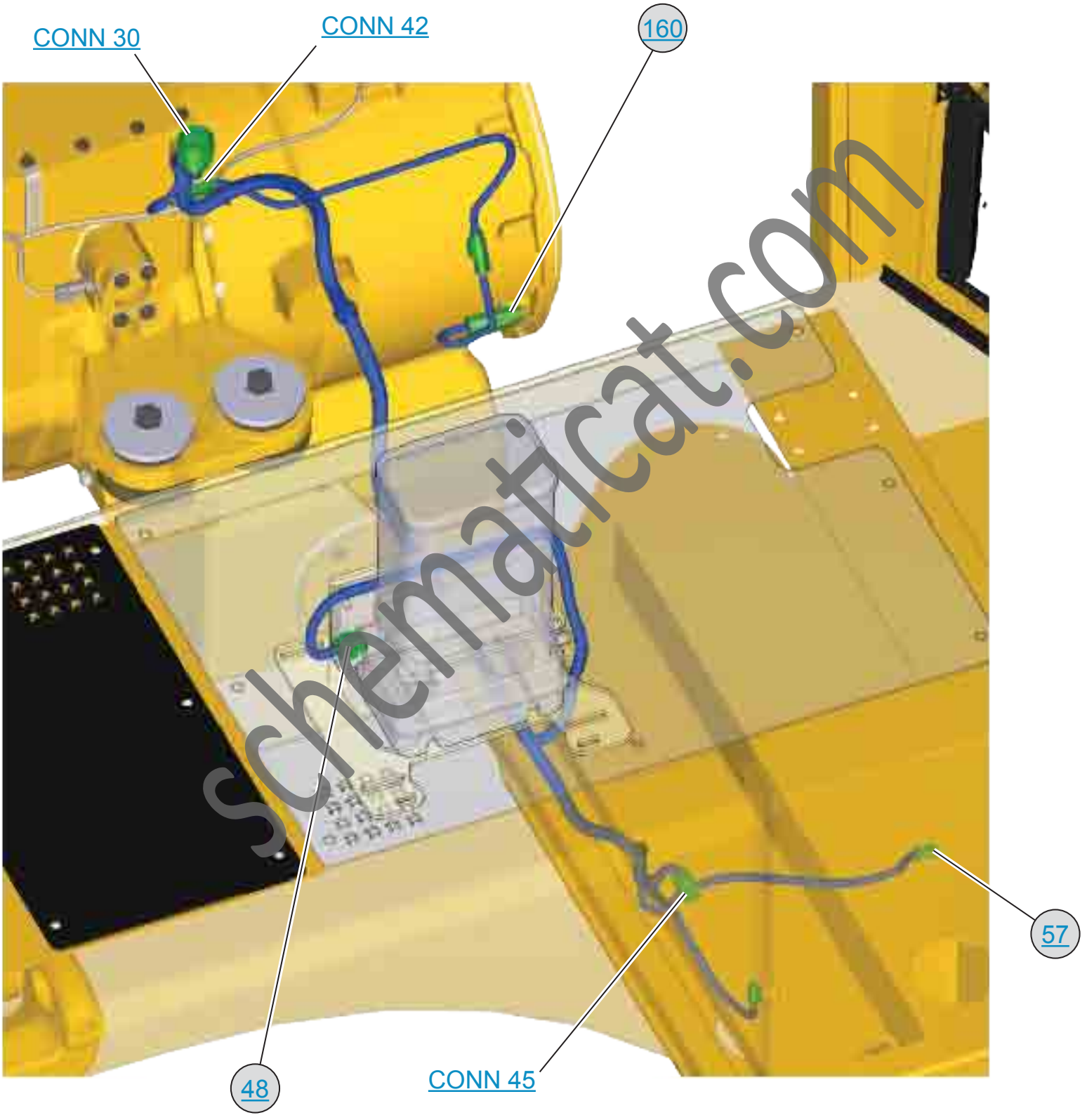
FRONT CHASSIS HARNESS VIEW

VIEW ALL CALLOUTS



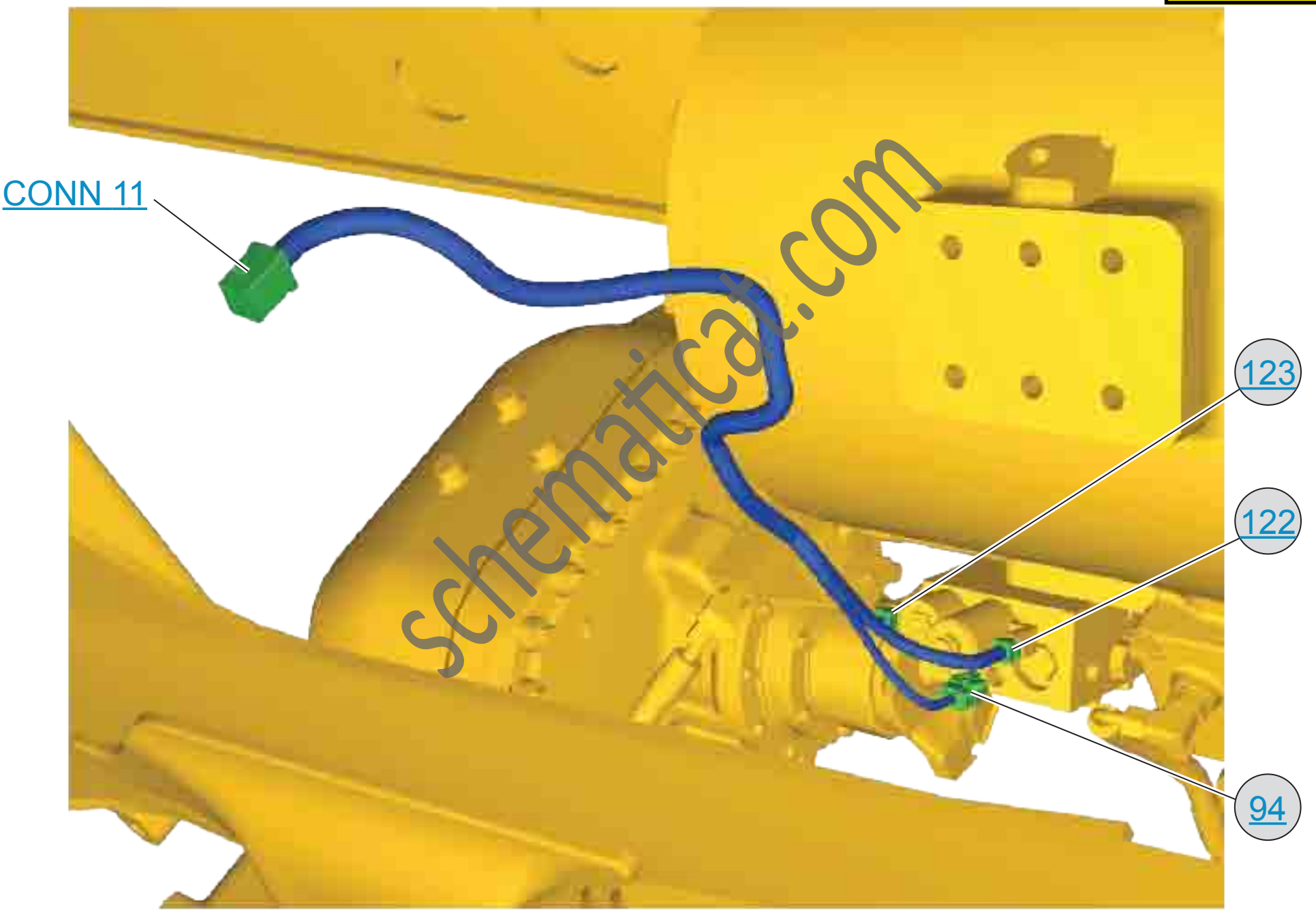
FENDER HARNESS VIEW

VIEW ALL CALLOUTS



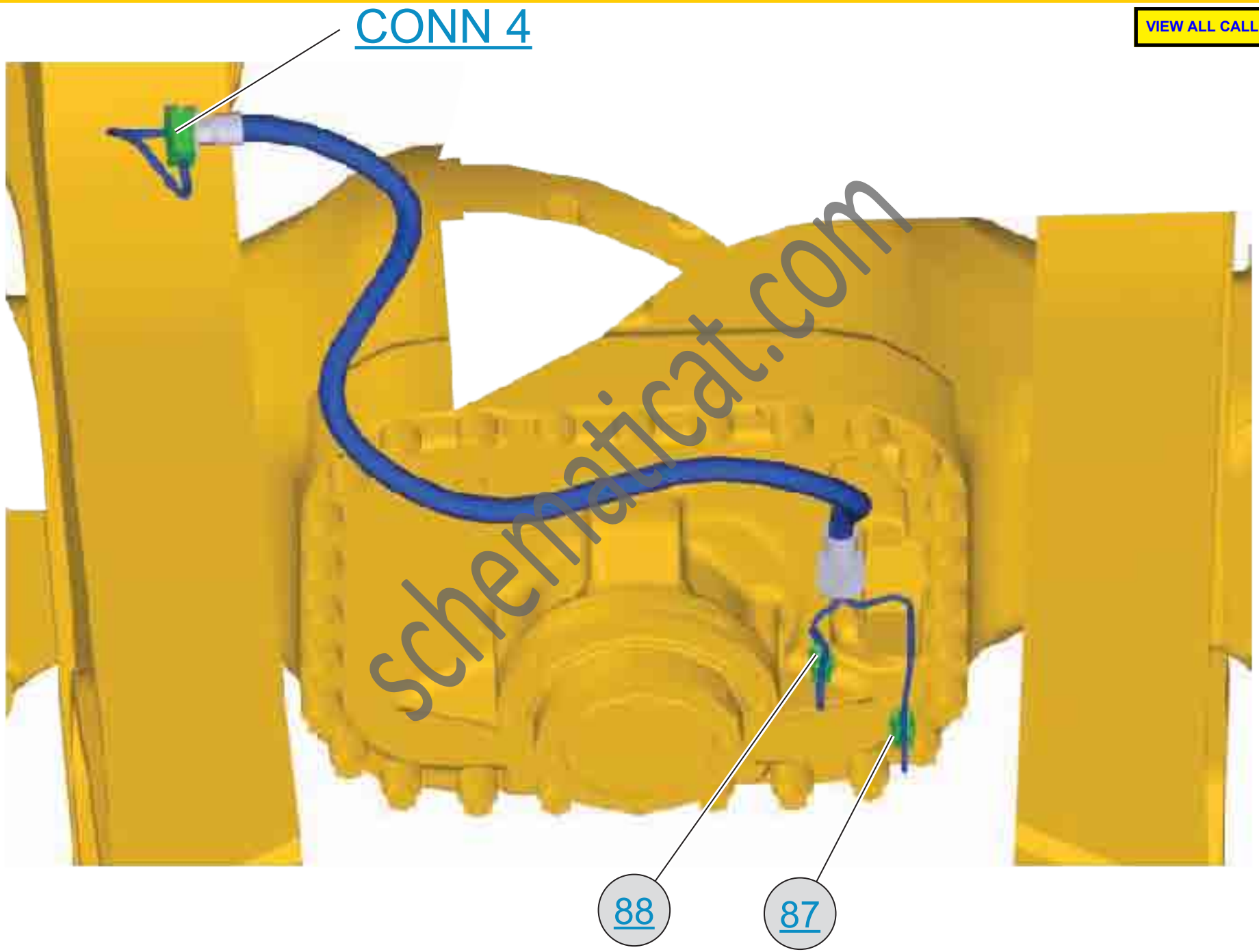
OTG HARNESS VIEW

VIEW ALL CALLOUTS



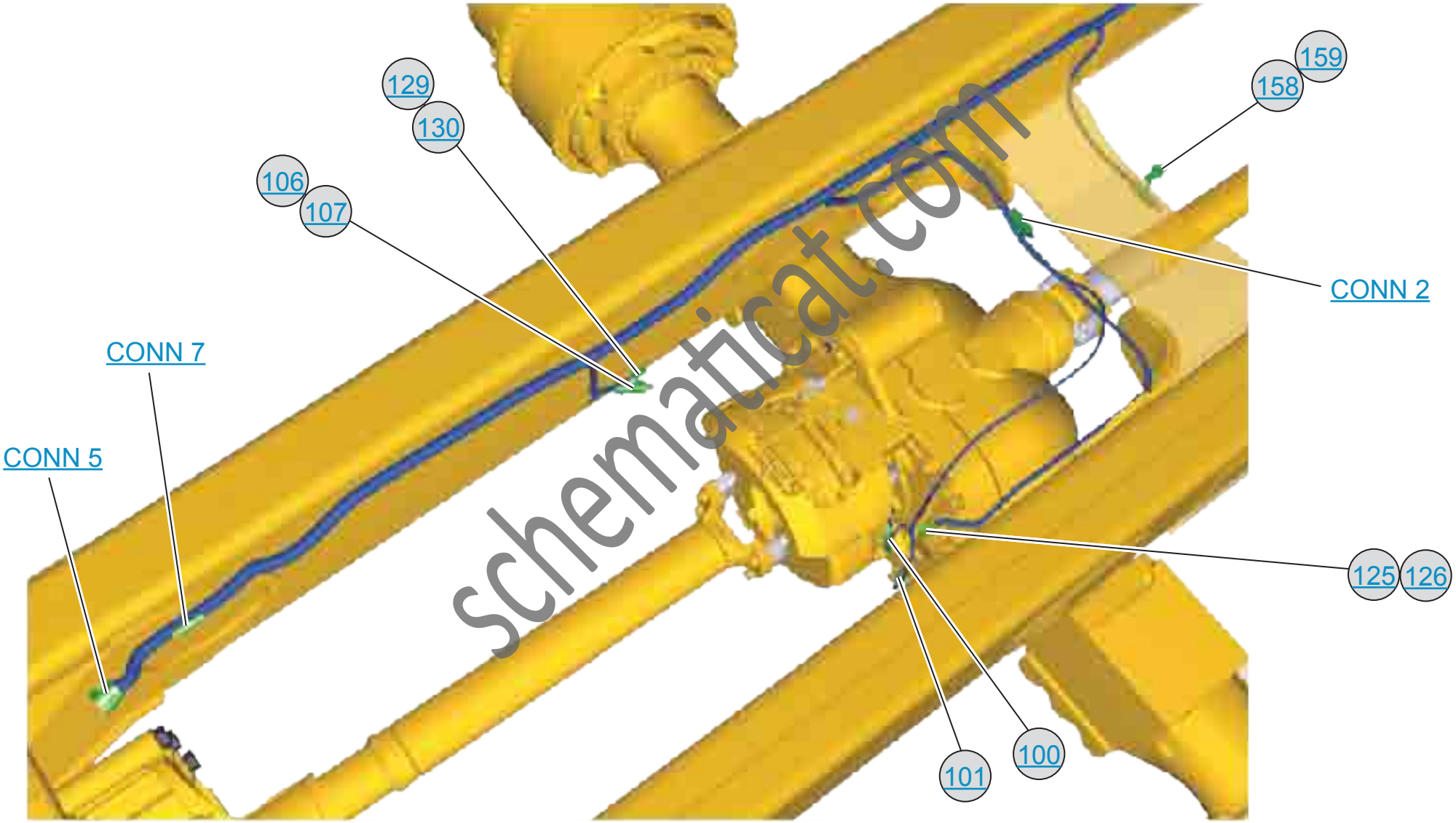
FRONT AXLE HARNESS VIEW

VIEW ALL CALLOUTS



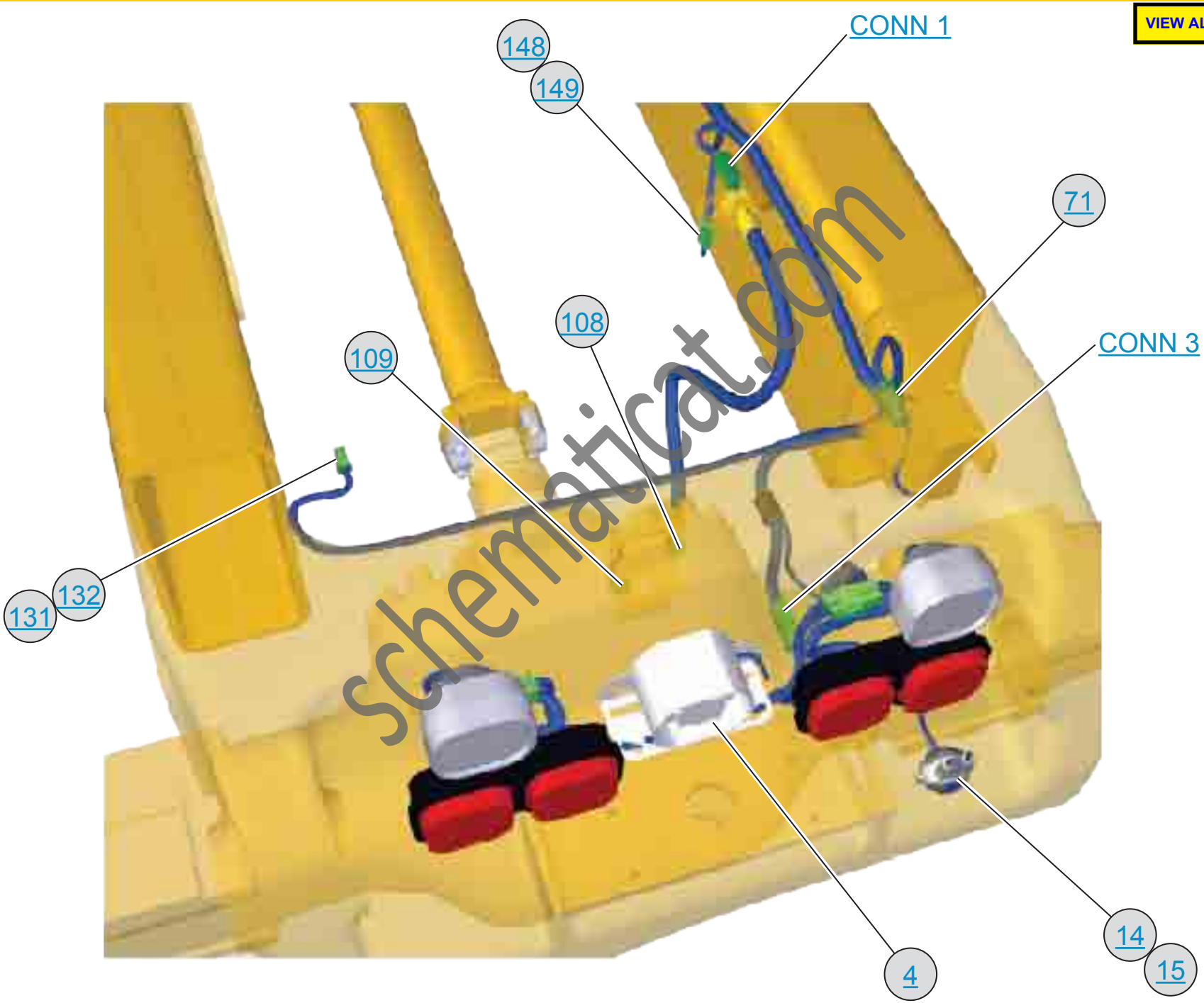
REAR CHASSIS AND MID AXLE HARNESS VIEW

VIEW ALL CALLOUTS



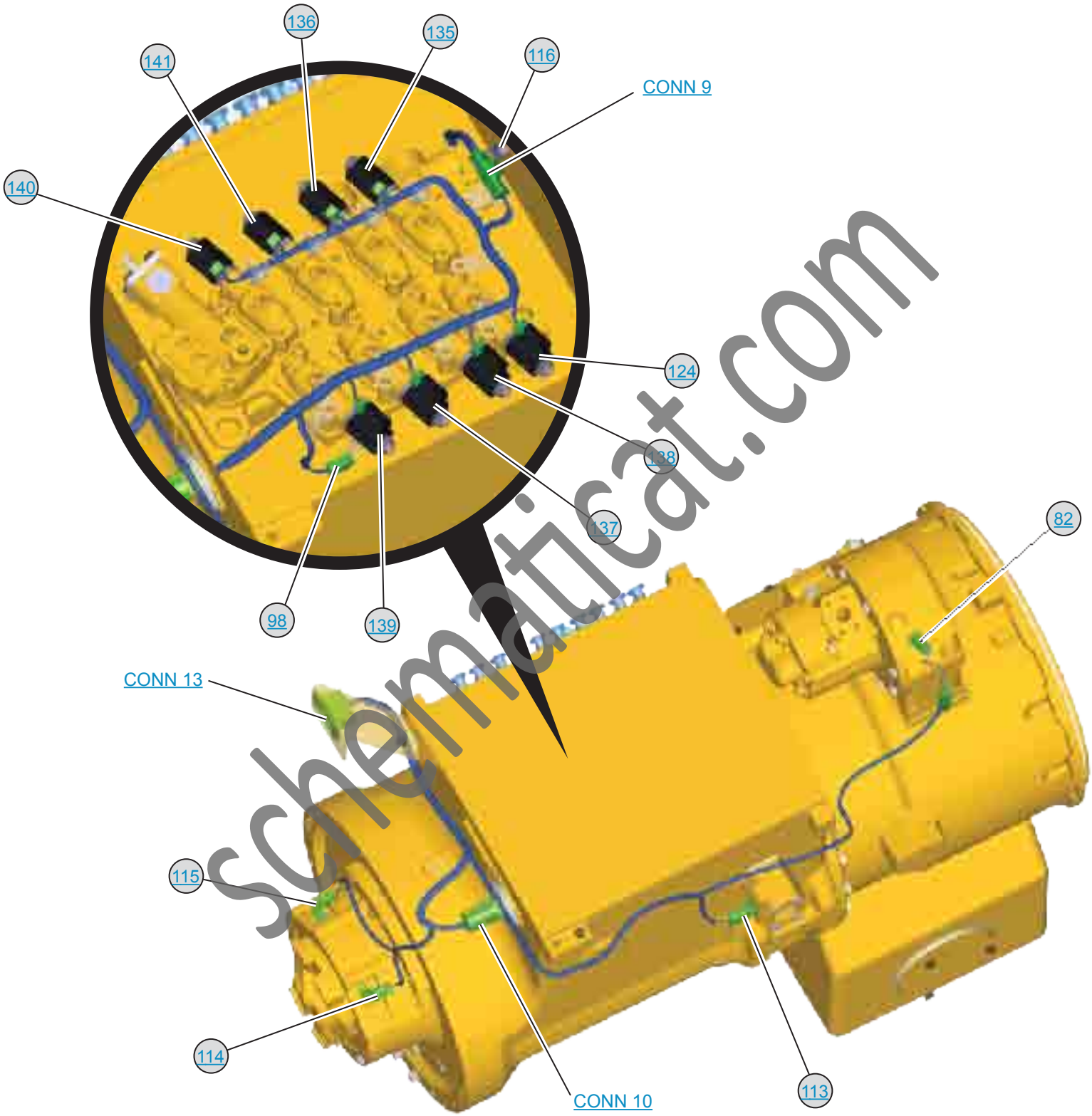
REAR CHASSIS AND REAR AXLE HARNESS VIEW

VIEW ALL CALLOUTS



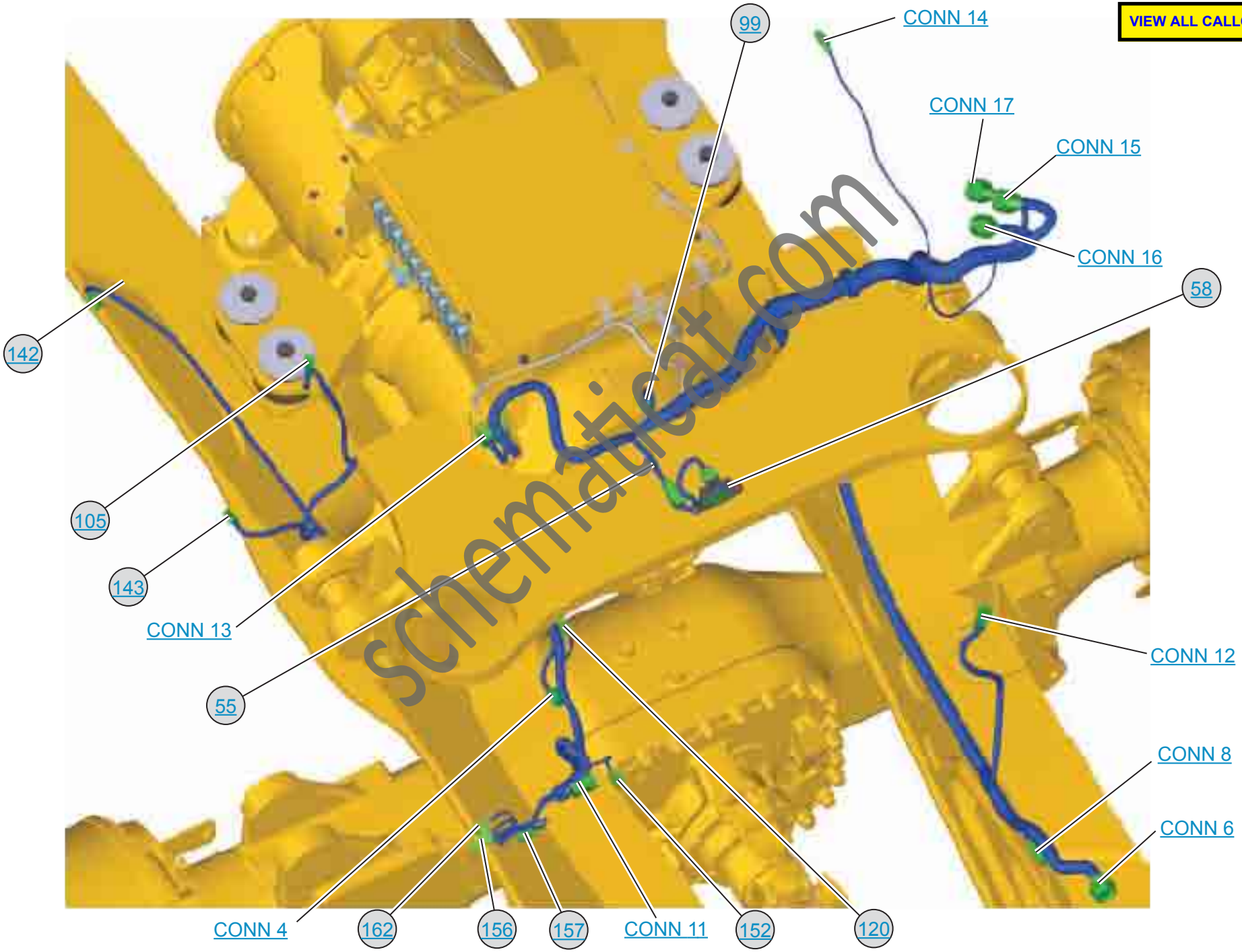
ECPC TRANSMISSION HARNESS VIEW

VIEW ALL CALLOUTS



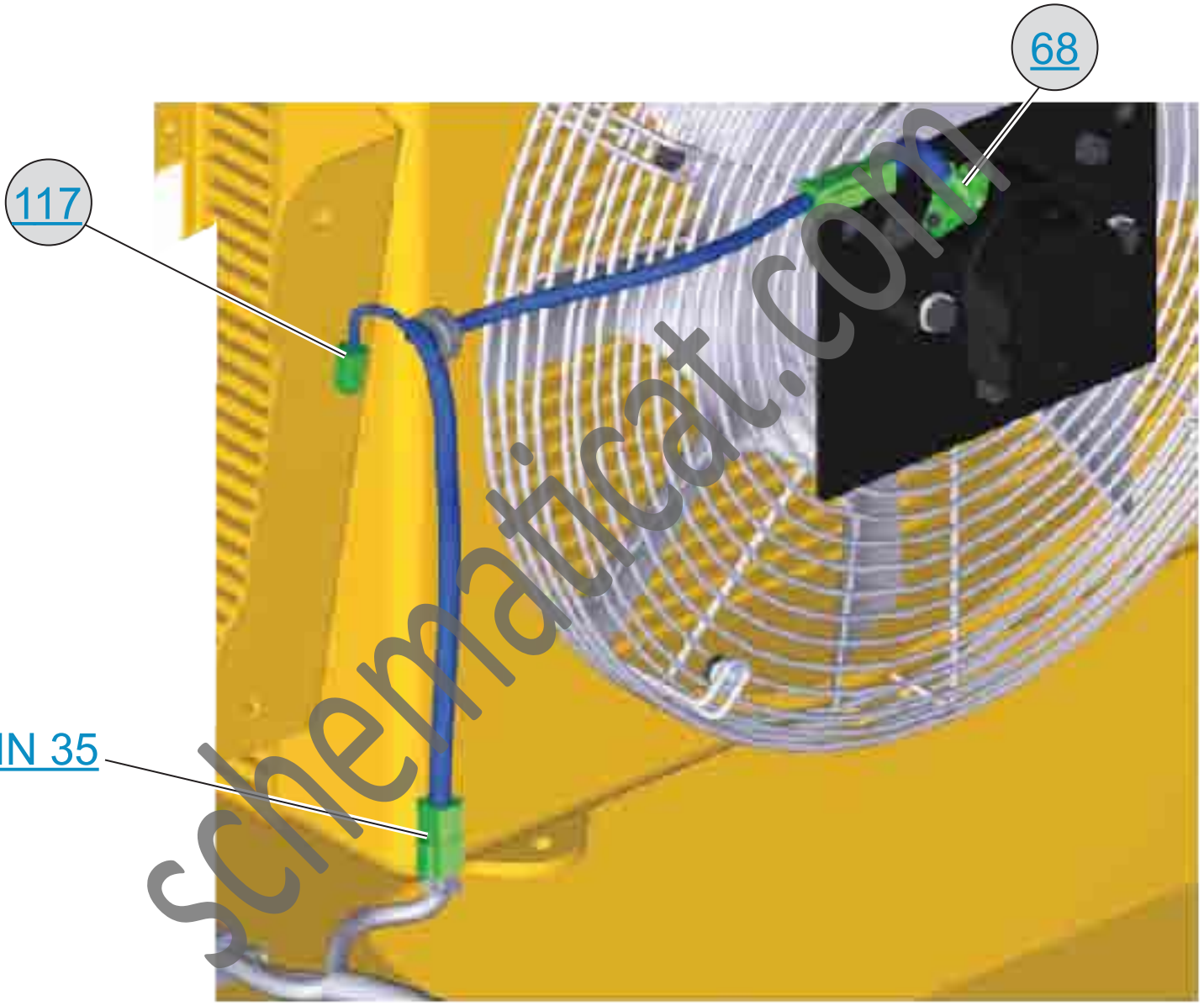
TRANSMISSION HARNESS VIEW

VIEW ALL CALLOUTS



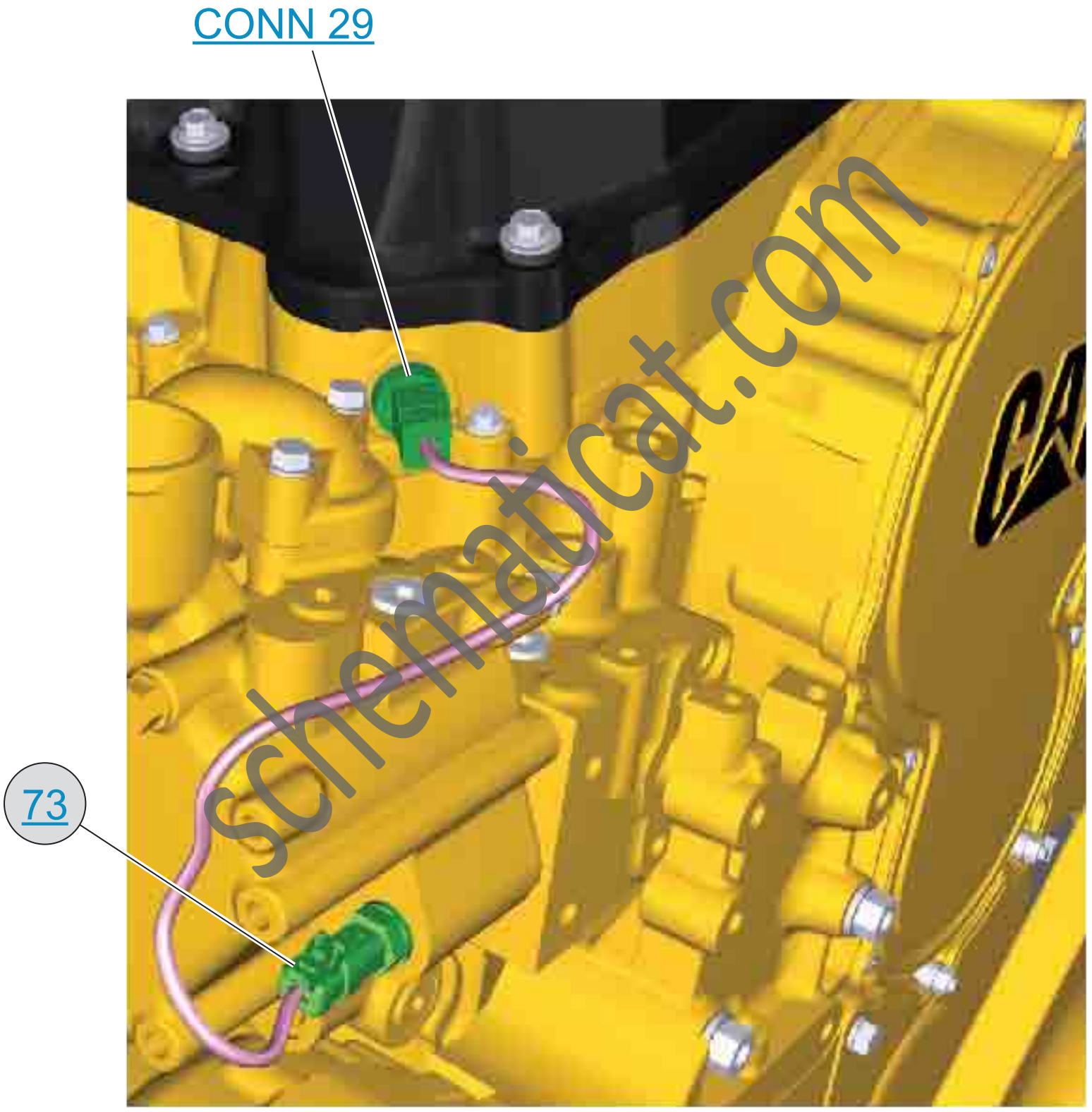
ATAAC HARNESS VIEW

VIEW ALL CALLOUTS



COOLANT JUMPER HARNESS VIEW - T4P T4R T4S

VIEW ALL CALLOUTS

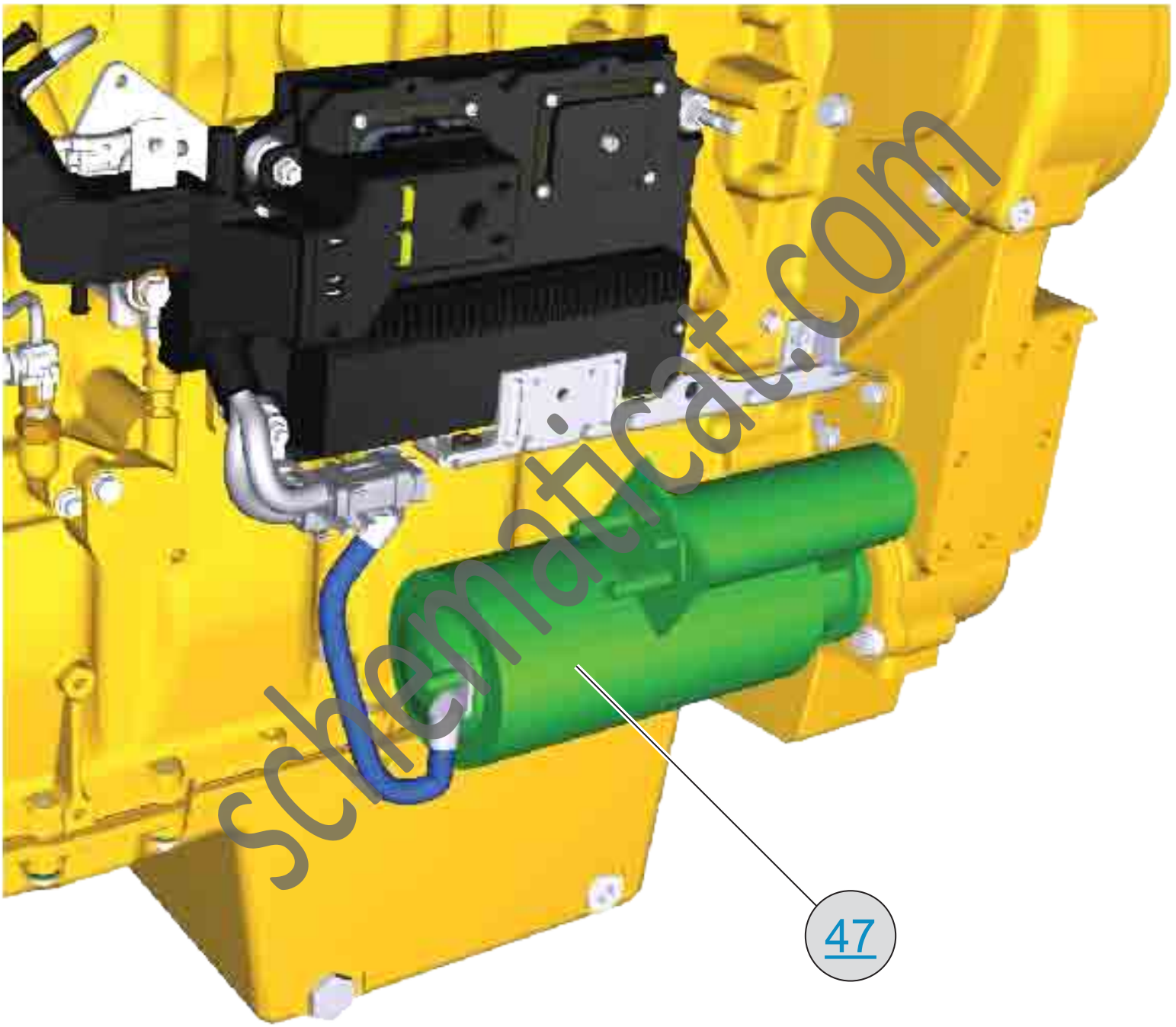


COOLANT JUMPER HARNESS VIEW - L4D L4E L4F

VIEW ALL CALLOUTS

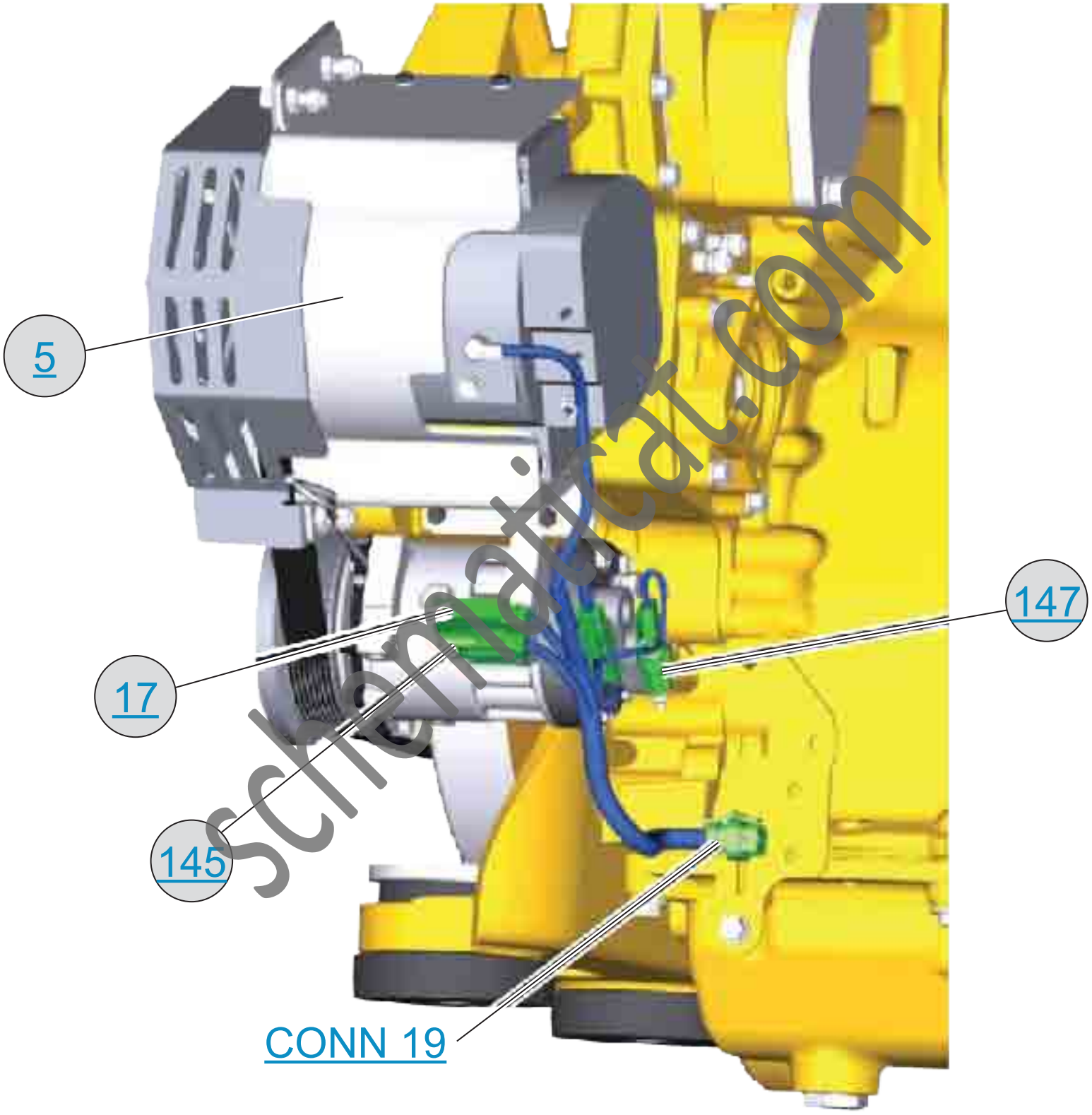
STARTER VIEW

VIEW ALL CALLOUTS



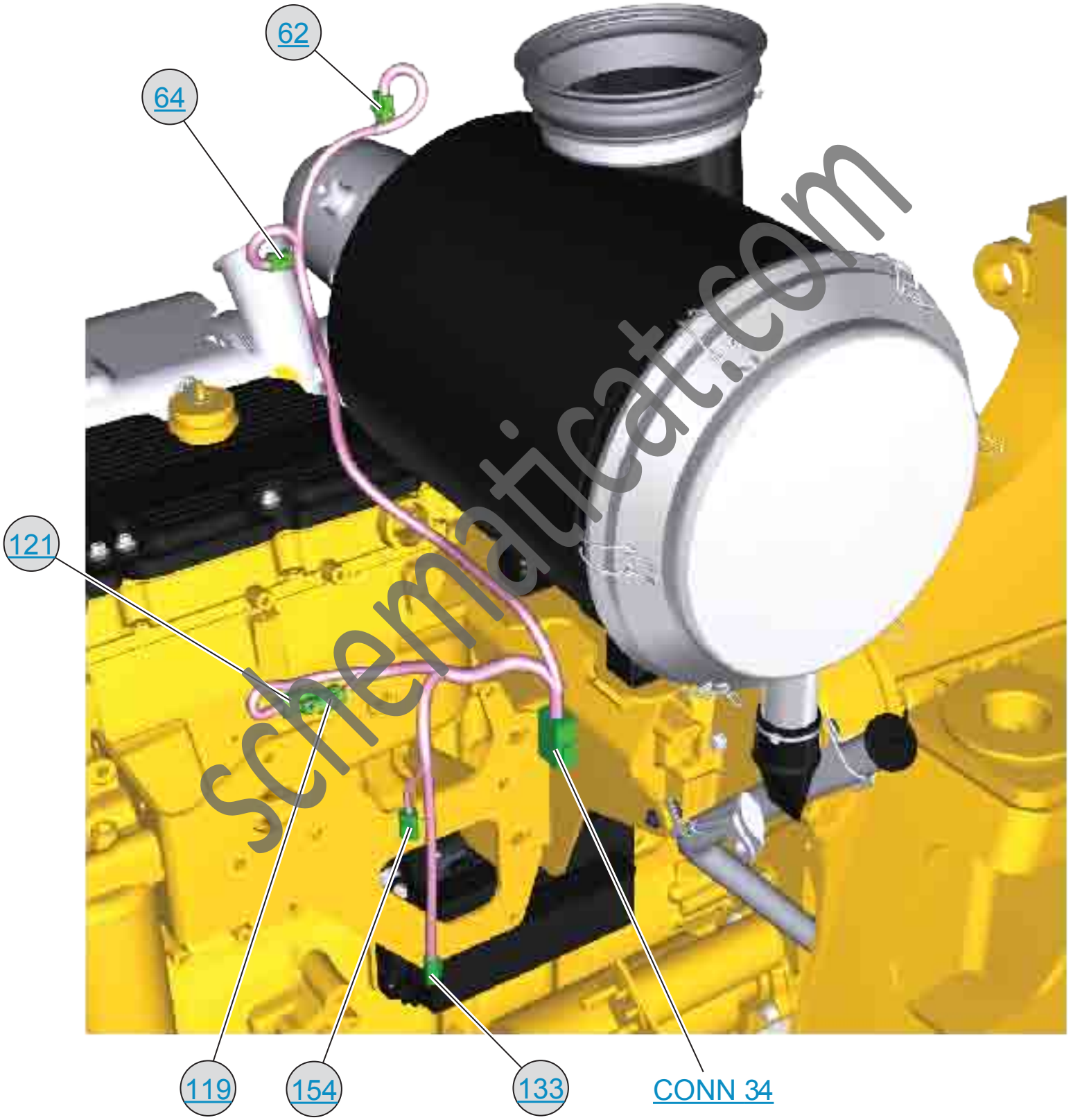
ALTERNATOR HARNESS VIEW

VIEW ALL CALLOUTS



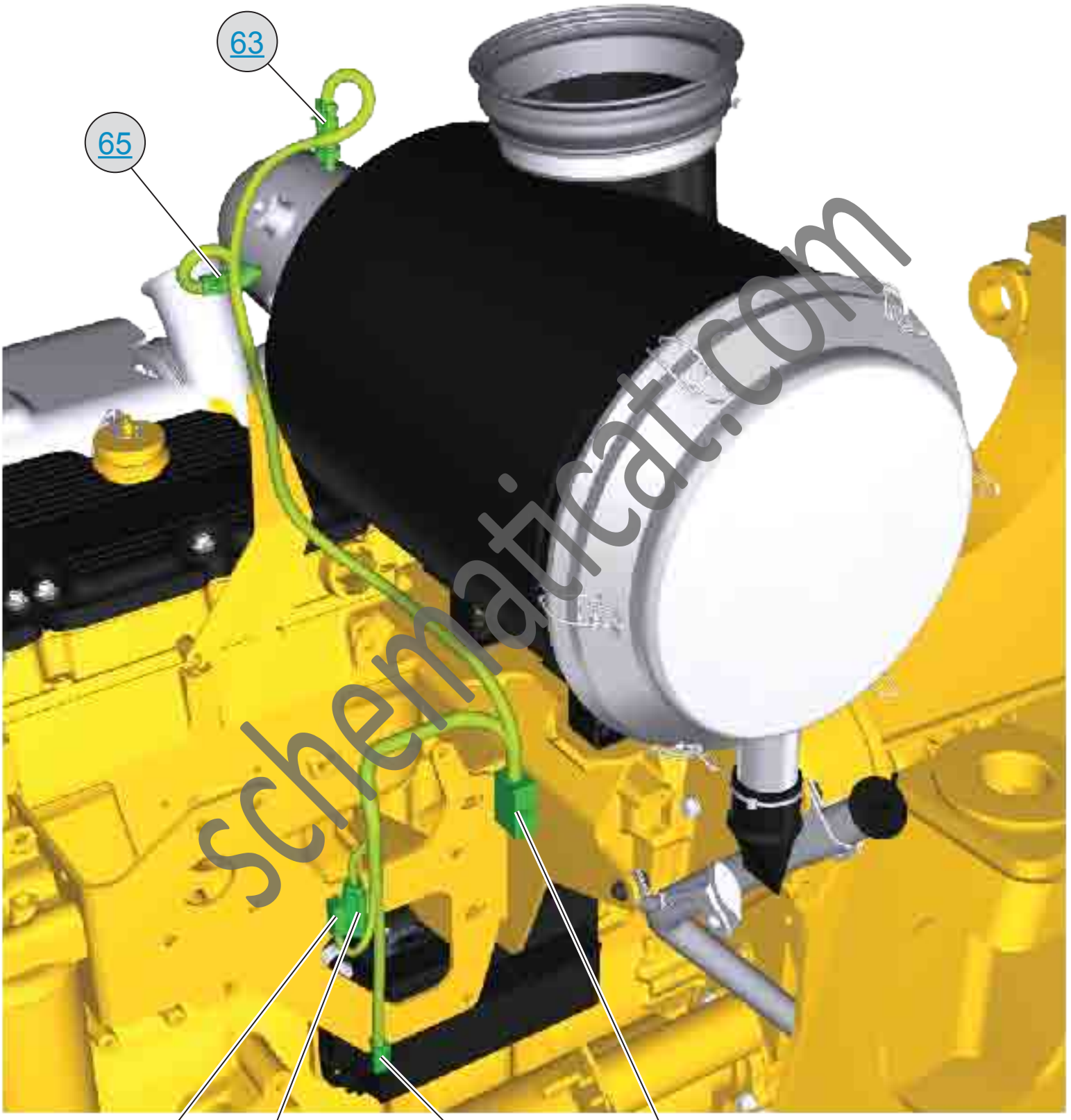
AIR CLEANER HARNESS VIEW - T4P T4R T4S

VIEW ALL CALLOUTS



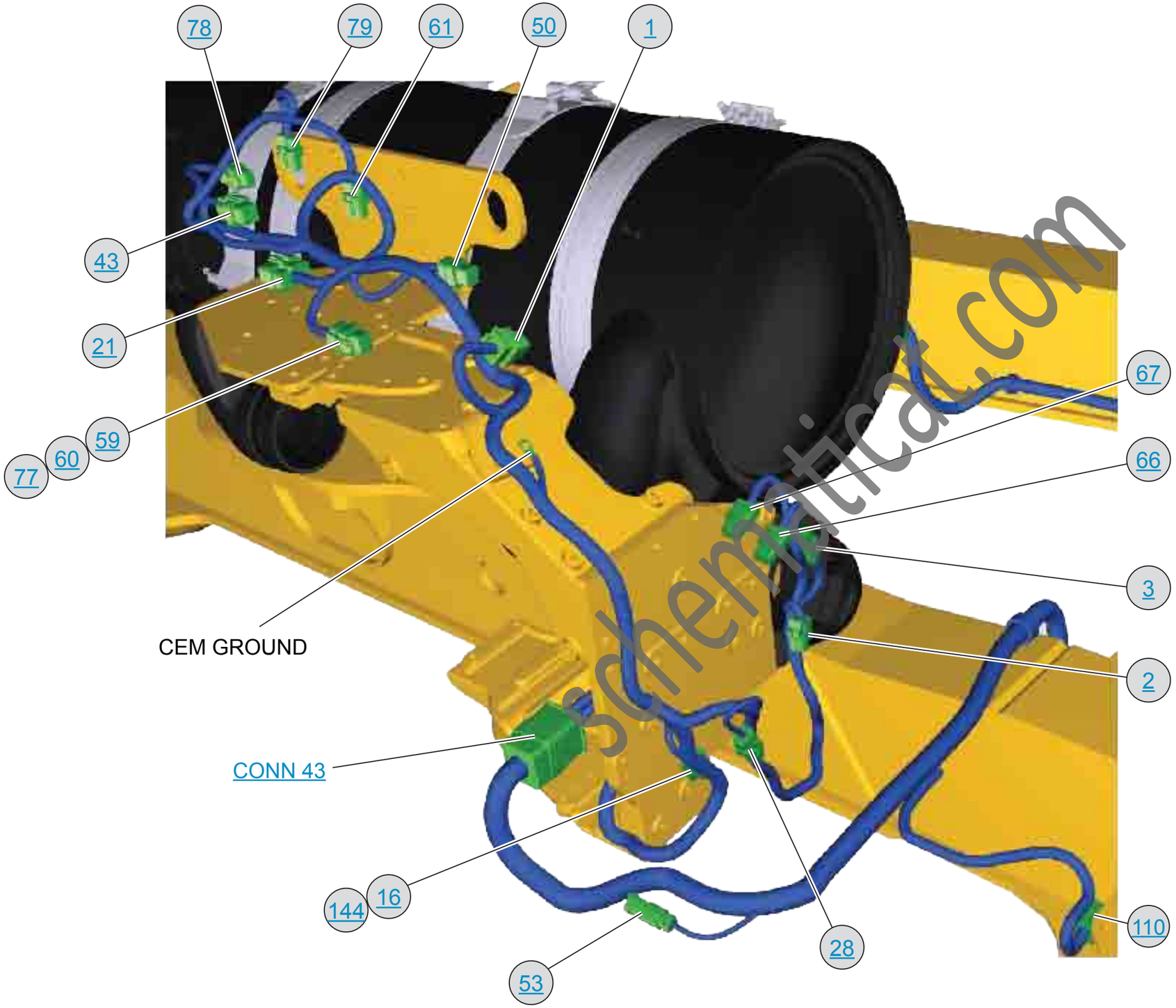
AIR CLEANER HARNESS VIEW - L4D L4E L4F

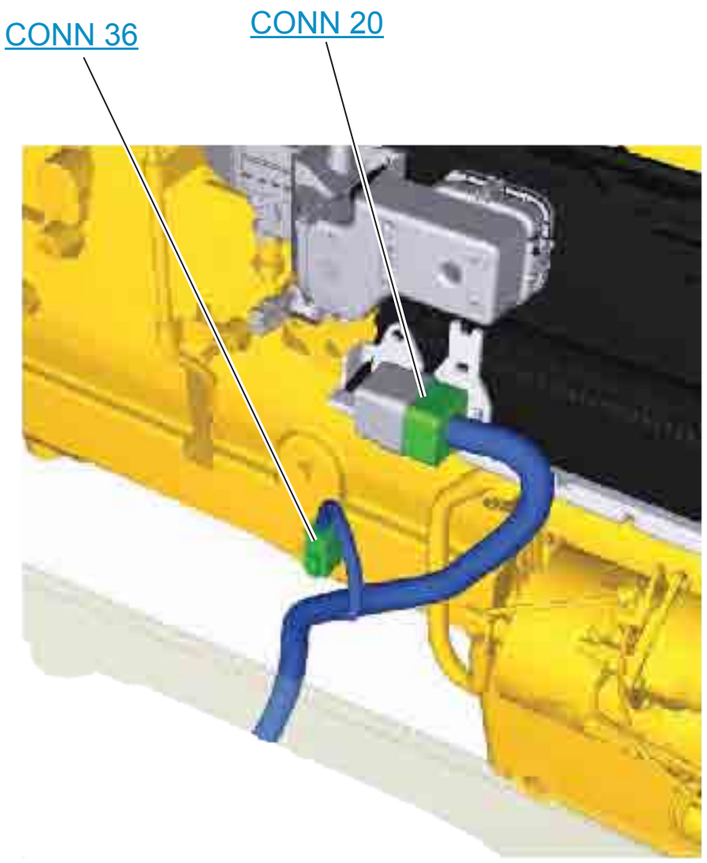
VIEW ALL CALLOUTS



AFTERTREATMENT AND CEM HARNESS VIEW

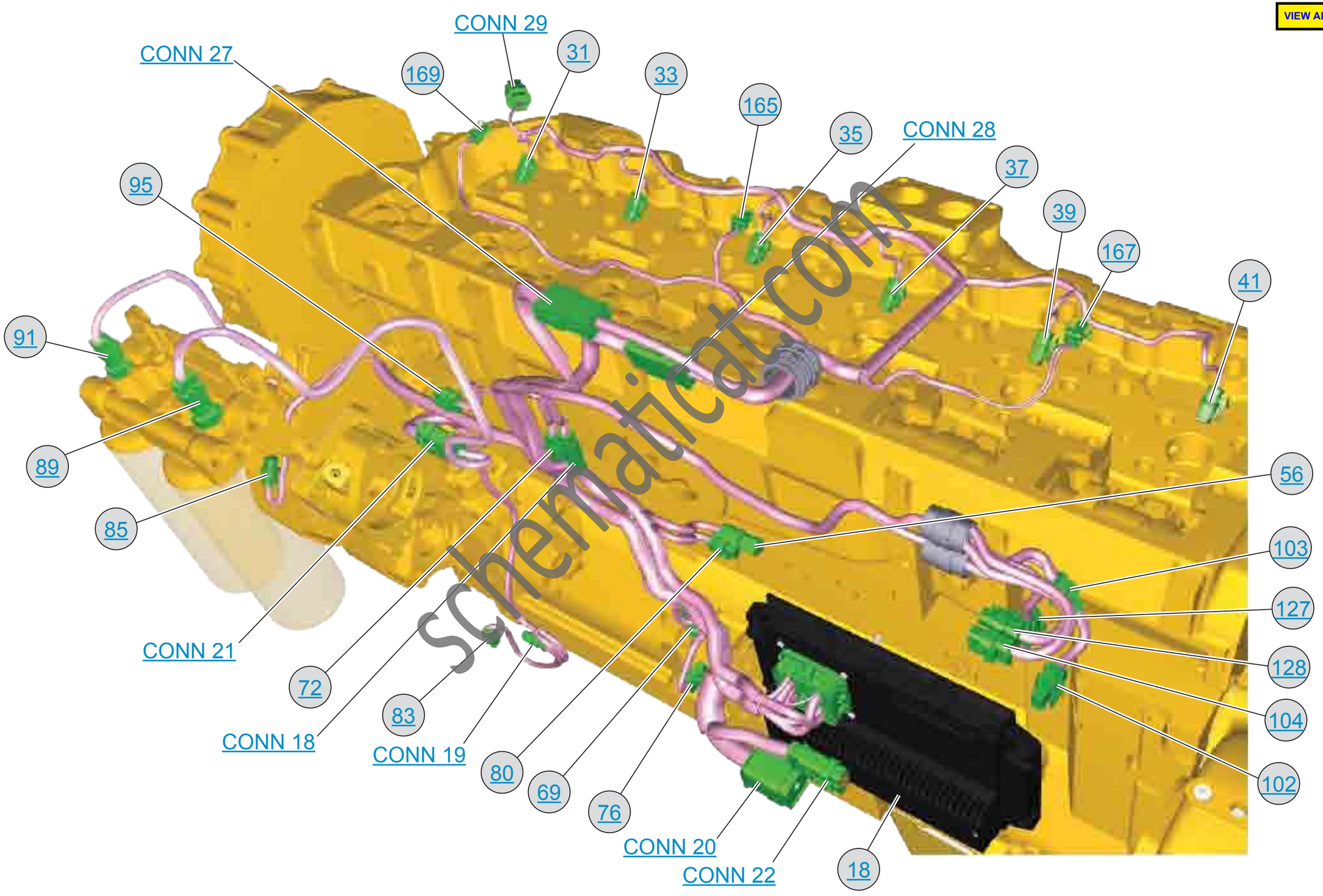
VIEW ALL CALLOUTS





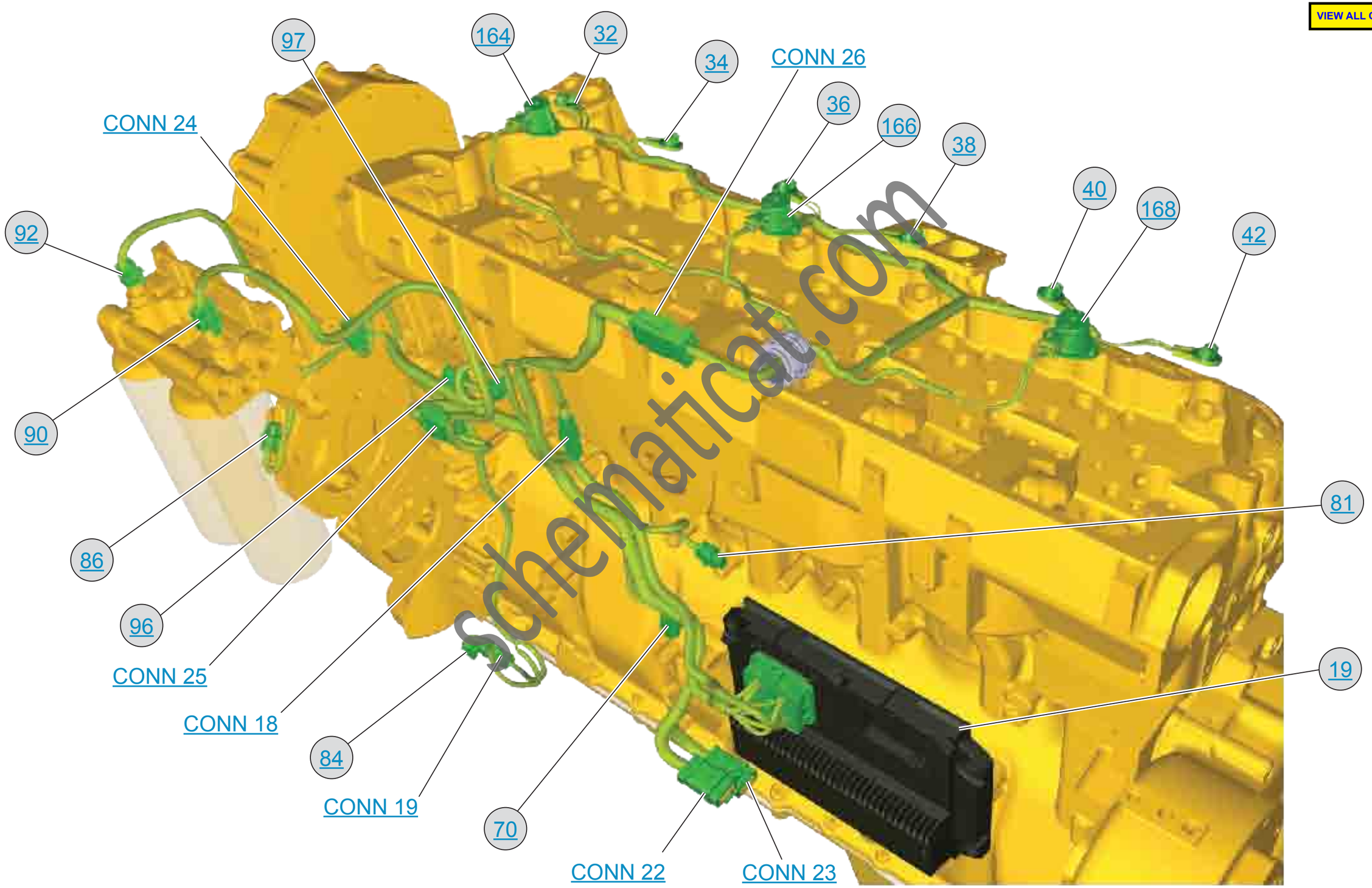
ENGINE HARNESS VIEW - T4P T4R T4S

VIEW ALL CALLOUTS



ENGINE HARNESS VIEW - L4D L4E L4F

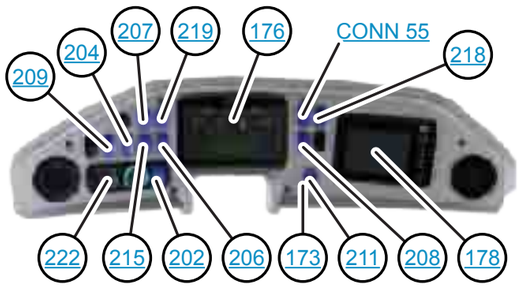
VIEW ALL CALLOUTS



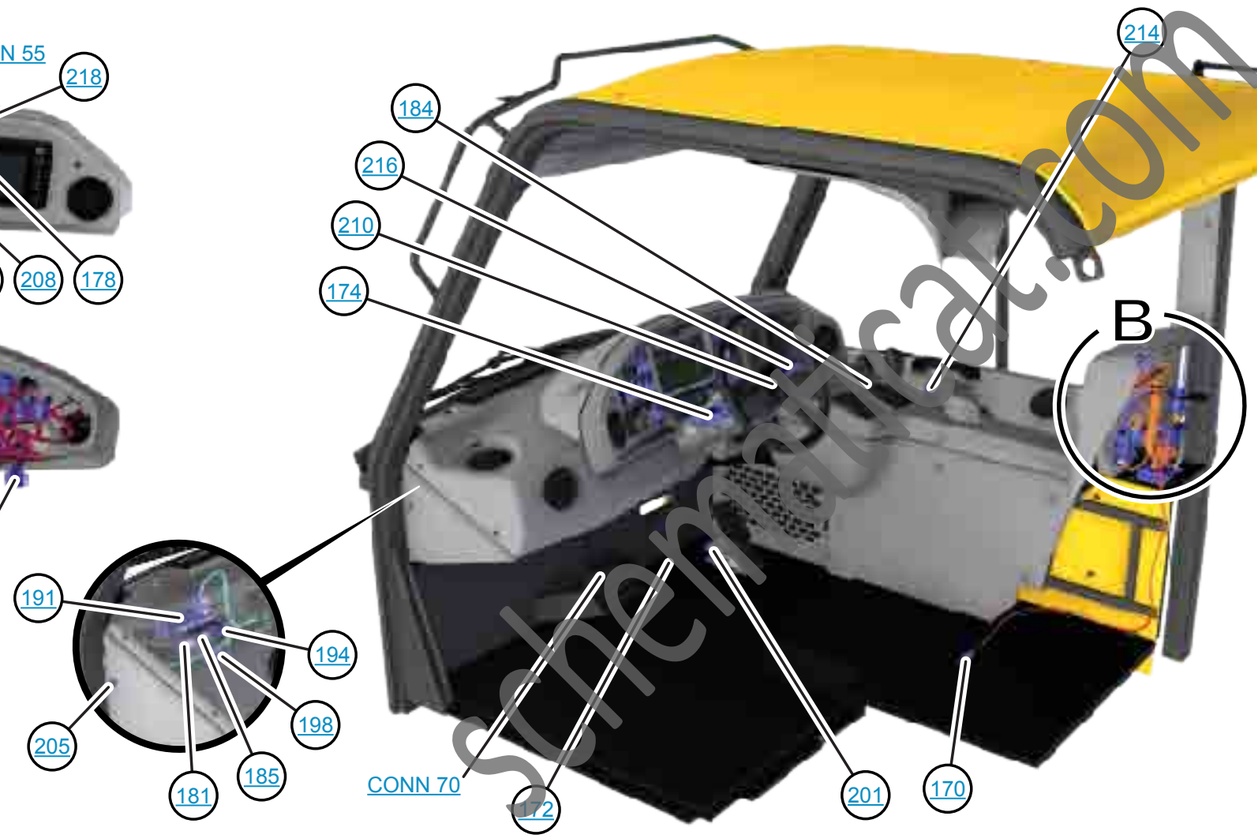
CAB INTERIOR VIEW

VIEW ALL CALLOUTS

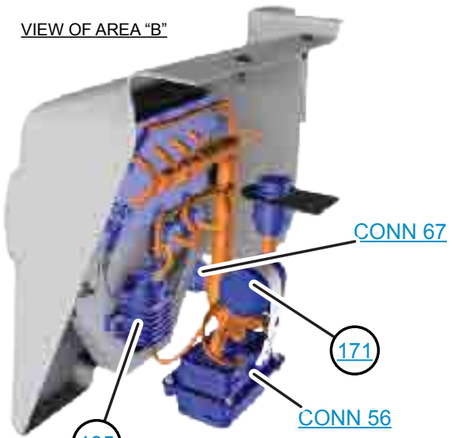
FRONT VIEW OF DASH



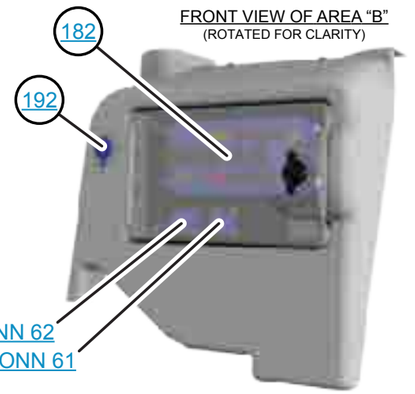
REAR VIEW OF DASH



VIEW OF AREA “B”

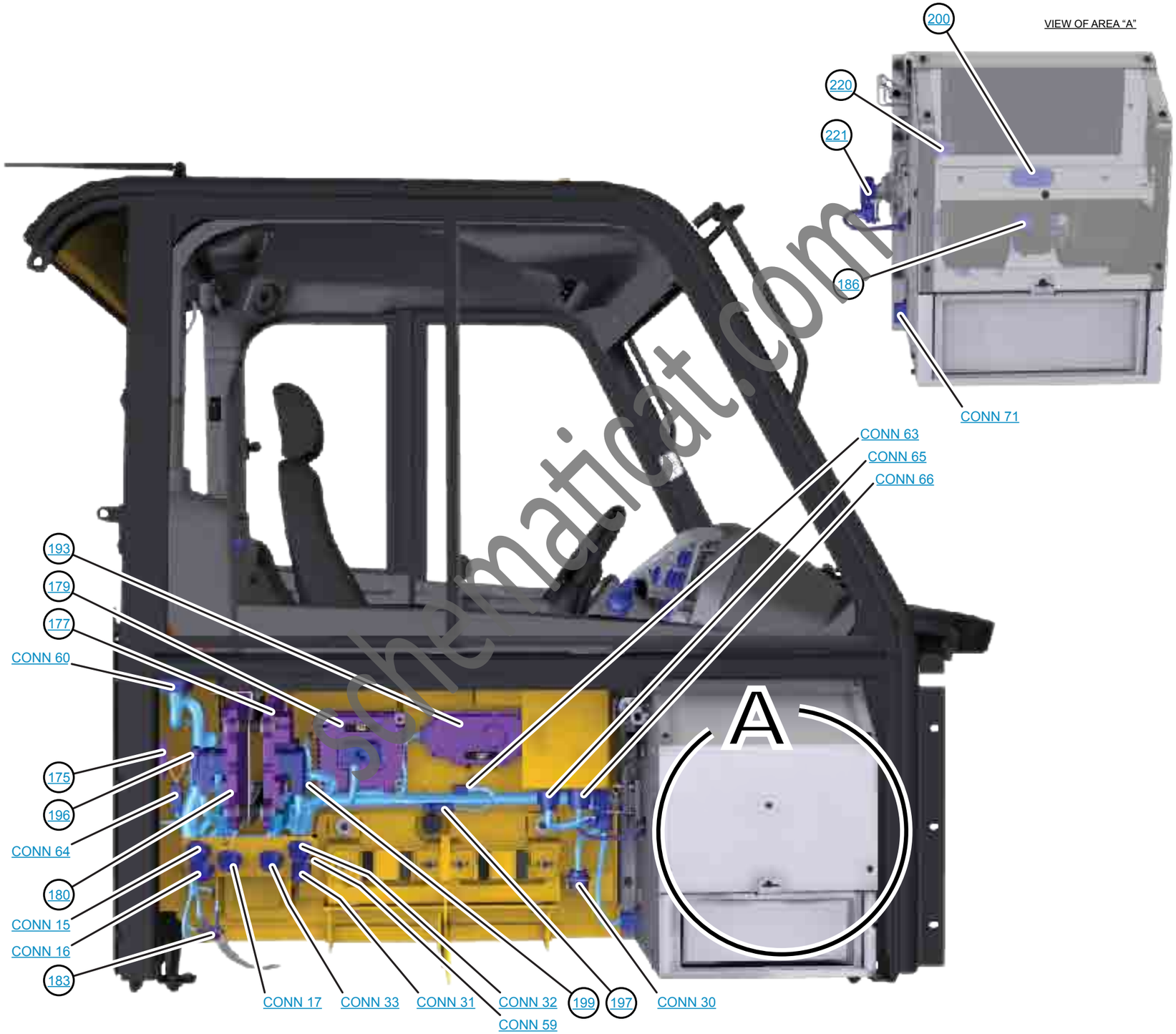


FRONT VIEW OF AREA “B”
(ROTATED FOR CLARITY)



ECM COMPARTMENT VIEW

VIEW ALL CALLOUTS



FRONT CAB VIEW

VIEW ALL CALLOUTS

HEADLINER VIEW

VIEW ALL CALLOUTS