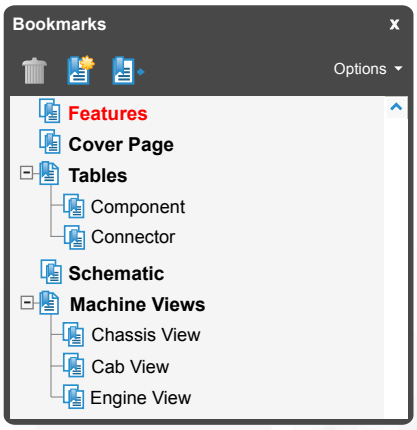
INTERACTIVE SCHEMATIC

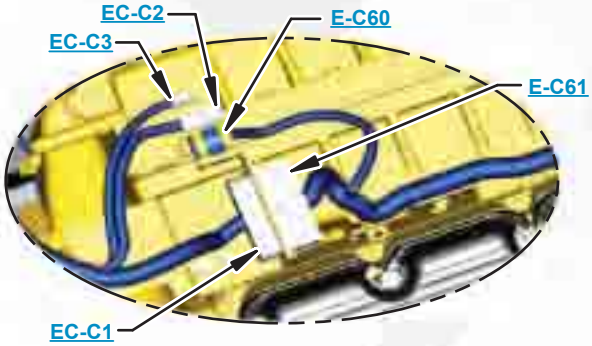


The Bookmarks panel will allow you to quickly navigate to points of interest.

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*



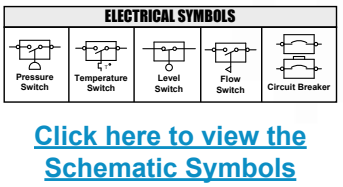
Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

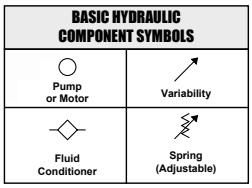
Click here to save a copy of this interactive schematic to your desktop

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

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	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

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).

AG-C4 111-7898 | L-C12 3E-5179

Part Number: for Connector Plug

1 2

Plug | Receptacle Pin or Socket Number

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

5A

Fuse (5 Amps)

9X-1123 Component Part Number

325-AG135 PK-14

Harness identification code: This example indicates wire group 325, wire 135 in harness "AG".

Wire Gauge | Wire Color

1 2

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

1 2

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

CATERPILLAR®

UENR4996
September 2014

Schematic

844K Wheel Dozer and 990K Wheel Loader Electrical System

844K:
MBE1-UP

990K:
A9P1-UP

Volume 1 of 3: Chassis Wiring
Volume 2 of 3: Cab Wiring
Volume 3 of 3: Engine Wiring

Printed in U.S.A.

COMPONENT TABLE - CHASSIS

Component Location - Vol 1 (Chassis)					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Backup	I-12	1	Sensor - XMSN Oil Temp	G-8	61
Breaker - Steel Mill	D-11	2	Sensor - XMSN Input Speed	H-8	62
Diode - Park Brake Release	C-11	3	Sensor - XMSN Oil Lo	H-9	63
Display - Messenger	A-11	4	Sensor - XMSN Output Speed 1	G-8	64
Ground - Cab	E-10	5	Sensor - XMSN Output Speed 2	G-8	65
Ground - Chassis	E-11	6	Solenoid - Autolube	C-9	66
Ground - Frame 1	A-13	7	Solenoid - Axle Oil Cooler	I-8	67
Ground - Frame 2	A-13	8	Solenoid - Blade Lower	E-3	68
Horn - Forward High Tone LH	J-2	9	Solenoid - Blade Raise	E-3	69
Horn - Forward High Tone RH	H-2	10	Solenoid - Blade Tilt Left	E-3	70
Horn - Forward High Tone RH 2	D-2	11	Solenoid - Blade Tilt Right	E-3	71
Horn - Forward Low Tone LH	J-2	12	Solenoid - Dual Tilt	D-3	72
Horn - Forward Low Tone LH 2	F-2	13	Solenoid - Dump	I-2	73
Horn - Forward Low Tone RH	H-2	14	Solenoid - Forward 3rd	I-2	74
Indicator - Start Lockout	H-13	15	Solenoid - FWD 2	H-10	75
Keypad - Level Monitoring	C-11	16	Solenoid - Impeller Clutch	E-8	76
Pump - Fuel Priming	F-10	17	Solenoid - Implement Pilot Supply	H-2	77
Pump Gp - Lubrication	E-2	18	Solenoid - Implement Pilot Supply	E-3	78
Resistor	E-15	19	Solenoid - Lift Float	I-2	79
Resistor - Keypad Can B	C-11	20	Solenoid - Lock Up Clutch	E-8	80
Resistor - Keypad Can B1	A-8	21	Solenoid - Lower	I-2	81
Resistor - Radar Can B	J-12	22	Solenoid - Park Brake Override	D-16	82
Sender - Fuel Level	F-10	23	Solenoid - Parking Brake	D-8	83
Sensor - Air Inlet Temp	F-12	24	Solenoid - Rackback	I-2	84
Sensor - Autolube Grease Level	B-9	25	Solenoid - Raise	J-2	85
Sensor - Autolube Pressure	I-3	26	Solenoid - Rear 3rd	H-2	86
Sensor - Autolube Pump Pressure	B-9	27	Solenoid - Rev 1	H-10	87
Sensor - Brake Accumulator Pressure	H-10	28	Solenoid - Ride Control Activation	F-4	88
Sensor - Brake Accumulator Pressure	C-16	29	Solenoid - Ride Control Balance	G-4	89
Sensor - Coolant Tank Level Full	F-12	30	Solenoid - Right Front Implement Pump	E-8	90
Sensor - Coolant Tank Level Low	F-12	31	Solenoid - Right Rear Implement Pump	E-8	91
Sensor - Demand Fan Pressure	D-8	32	Solenoid - Speed 1	G-10	92
Sensor - Fixed Pump Pressure	B-7	33	Solenoid - Speed 2	G-10	93
Sensor - FR Axle Oil Temp	G-4	34	Solenoid - Speed 3	H-9	94
Sensor - FR Axle Oil Temp	D-3	35	Switch - Area Light	A-12	95
Sensor - Front Service Brake Pressure	D-8	36	Switch - Fan Motor case Drain Bypass	C-9	96
Sensor - Impl Clutch Pressure	I-8	37	Switch - Fan Return Filter Bypass	I-10	97
Sensor - Implement Pilot oil Pressure	D-9	38	Switch - Fan Return Filter Bypass	C-16	98
Sensor - Implement Pilot Oil Pressure	D-3	39	Switch - Fuel Prime Pump	F-12	99
Sensor - Implement Pressure	B-7	40	Switch - Ground Level Service Key VIMS	C-12	100
Sensor - Implement Tank Oil Full	H-10	41	Switch - Ground Level Shutdown	I-13	101
Sensor - Implement Tank Oil Low	H-10	42	Switch - Hood Lamp 1	F-12	102
Sensor - Implement Tank Oil Temperature	I-10	43	Switch - Hood Lamp 2	F-13	103
Sensor - Implement Tank Oil Temperature	C-16	44	Switch - Impl Discharge Screen Bypass	I-8	104
Sensor - Lift Cylinder Head End Pressure	I-4	45	Switch - Impl Pilot Filter Bypass	C-9	105
Sensor - Lift Cylinder Rod End Pressure	J-4	46	Switch - Impl Pump Case Drain Bypass	C-9	106
Sensor - Lift Linkage Position	G-3	47	Switch - Park Brake Release	C-11	107
Sensor - Object Detection (Center)	J-12	48	Switch - Primary Steer Pressure	I-8	108
Sensor - Object Detection (LH)	J-12	49	Switch - Retractable Step 1	I-13	109
Sensor - Object Detection (RH)	J-12	50	Switch - Retractable Step 2	J-10	110
Sensor - Parking Brake Oil Pressure	D-8	51	Switch - Stairway Access Lights	I-13	111
Sensor - Rear Axle Oil Temp	F-9	52	Switch - Starter Lockout	H-13	112
Sensor - Rear Service Brake Pressure	D-8	53	Switch - Steel Mill Park Brake	D-16	113
Sensor - Steering Tank Oil Full	F-10	54	Switch - Steer Brake Case Drain Bypass	D-9	114
Sensor - Steering Tank Oil Low	F-10	55	Switch - Steering CLR Return Filter Bypass	E-10	115
Sensor - Steering Tank Oil Temp	F-10	56	Switch - Steering Pilot Filter Bypass	C-9	116
Sensor - TC Oil Temp	E-8	57	Switch - XMSN Lockout	I-13	117
Sensor - Tilt Linkage	G-3	58	Switch - XMSN Oil Filter Bypass	D-9	118
Sensor - Turbo Inlet Pressure LH	E-12	59	Valve As - Ether	F-11	119
Sensor - Turbo Inlet Pressure RH	E-2	60	Valve Gp - Demand Fan	E-8	120

COMPONENT TABLE - CAB

Component Location - Vol 2 (CAB)					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Action	F-4	121	Sensor - Louver Temp	H-3	172
Alarm - Machine Feature	H-3	122	Sensor - Recirc Filter Temp	G-5	173
Block As - Fuse	C-10	123	Sensor - Third Lever Position	I-4	174
Breaker - Engine ECM	C-11	124	Sensor - Throttle Position	C-3	175
Breaker - Engine ECM 2	C-11	125	Sensor - Tilt Lever Position	I-4	176
Breaker - Running Lamp	C-11	126	Sensor - Torque Conv Pedal Position	C-3	177
Camera - Cat Detect	C-16	127	Sensor Gp - HVAC Evaporator	H-16	178
Control - Ripper Rocker	F-4	128	Suppressor - ARC (Steel Mill)	I-14	179
Control As - Blower Fan Speed	G-5	129	Suppressor - ARC (Steel Mill)	H-14	180
Control Gp - Handle	J-4	130	Switch - 3rd Function Lockout	F-1	181
Control Gp - Joystick	H-4	131	Switch - AC High Low Pressure	G-15	182
Control Gp - Network Manager	C-5	132	Switch - AC Low Pressure	G-15	183
Converter - 10A (ATCH)	I-11	133	Switch - ATC / Man	I-1	184
Converter - 10A (STD)	H-12	134	Switch - Beacon	G-1	185
ECM - Implement	J-6	135	Switch - Comp BK Pedal	D-3	186
ECM - XMSN	G-6	136	Switch - Door	B-3	187
Flasher	B-3	137	Switch - Dual Wiper	J-11	188
Ground - Cab 1	B-9	138	Switch - Forward Override	I-15	189
Ground - Cab 2	B-9	139	Switch - Front Floods	H-1	190
Ground - RR Cab	B-14	140	Switch - Front Intermittent Wiper	I-12	191
Module Gp - Display (Object Det, Vision)	G-3	141	Switch - Hazard Lamp	G-1	192
Module Gp - Indication	E-3	142	Switch - HID Lamp	H-1	193
Module Gp - Keypad	F-1	143	Switch - Horn (844)	G-4	194
Monitor Gp - VIMS	G-10	144	Switch - Horn (990)	I-4	195
Motor - Blower	H-16	145	Switch - Implement Lockout	I-4	196
Motor - Front Washer	G-15	146	Switch - Implement Lockout (844)	G-4	197
Motor - Front Wiper	B-3	147	Switch - Key	F-3	198
Motor - Left Wiper	F-15	148	Switch - LH Armrest Position	J-4	199
Motor - LH Door Washer	F-15	149	Switch - Parking Brake	E-3	200
Motor - Precleaner	E-15	150	Switch - Payload Store	I-4	201
Motor - Rear Motor	E-14	151	Switch - Rear Floods	H-1	202
Motor - Rear Washer	F-15	152	Switch - Rear Intermittent Wiper	I-12	203
Motor - RH Door Washer	F-15	153	Switch - Reverse Override	I-15	204
Motor - Right Wiper	F-15	154	Switch - RH Service Brake Pedal	C-3	205
Motor - Sprayer Washer	G-15	155	Switch - Running Lamp	G-1	206
Panel - HVC	I-1	156	Switch - Seat Belt Reminder	F-5	207
Panel Gp - Fuse	D-10	157	Switch - Service Lamp	E-1	208
Product Link - Radio (Cell)	B-7	158	Switch - Shop Horn	E-1	209
Product Link - Radio (Sat)	C-7	159	Switch - Spot Lamp	J-11	210
Radio - Product Link	I-10	160	Switch - Stairway Access	G-1	211
Relay - Machine Power Distribution	D-11	161	Switch - Steering Lock	J-4	212
Relay - Main Power	C-11	162	Switch - Stoplamp	C-3	213
Relay - Steel Mill Backup Alarm	I-16	163	Switch - Throttle Lock Resume	H-4	214
Resistor	F-5	164	Switch - Throttle Lock Resume (844)	G-4	215
Resistor	E-1	165	Switch - Throttle Lock Set	H-4	216
Resistor	D-15	166	Switch - Throttle Lock Set (844)	G-4	217
Resistor - Pull Up	E-3	167	Switch - Turn Signal	H-4	218
Resistor - Steel Mill	I-14	168	Switch - Turn Signal	F-4	219
Seat - Air Suspension / Heat	F-5	169	Switch - Washer Bottle Level	E-15	220
Sensor - ARC Inclination	D-3	170	Valve - Water	G-16	221
Sensor - Lift Lever Position	J-4	171			

COMPONENT TABLE - ENGINE

Component Location - Vol 3 (Engine)		
Component	**Schematic Location**	**Machine Location**
Alternator	C-3	222
Batteries - LH	B-2	223
Batteries - RH	B-2	224
Breaker - Main	C-2	225
Compressor Gp - Refrigerant	B-4	226
ECM - Engine	D-8	227
Ground - Engine	B-3	228
Ground - Frame	C-3	229
Ground - Frame	B-2	230
Ground - Frame 2	B-3	231
Ground - Frame 3	B-3	232
Injectors - Even (Without Brake)	D-1	233
Injectors - Odd (Without Brake)	D-3	234
Injectors - Even (With Brake)	F-3	235
Injectors - Odd (With Brake)	F-1	236
Module - Aftertreatment	C-7	237
Motor - Starter (LH Machine Side)	B-3	238
Motor - Starter (RH Machine Side)	B-3	239
Receptacle - Auxiliary Start	C-2	240
Resistor - Can A	B-4	241
Sensor - Barometric Pressure	D-6	242
Sensor - Coolant Loss Pressure	B-4	243
Sensor - Coolant Temperature	F-6	244
Sensor - Engine Oil Pressure	F-6	245
Sensor - Engine Speed #1 (Crank)	C-7	246
Sensor - Engine Speed #2 (Cam)	B-7	247
Sensor - Exhaust Temperature LH	C-6	248
Sensor - Exhaust Temperature RH	C-6	249
Sensor - Fuel Pressure After Filter LH	F-4	250
Sensor - Fuel Temperature	F-4	251
Sensor - Intake Man Pressure LH #1	F-6	252
Sensor - Intake Man Pressure RH #2	F-6	253
Sensor - Intake Man Temp LH #1	E-6	254
Sensor - Intake Man Temp RH #2	E-6	255
Sensor - Low Oil Level Eng Off Full	E-6	256
Sensor - Low Oil Level Eng Running	E-6	257
Sensor - Low Oil Level Safe to Start	E-6	258
Sensor - NRS Differential Pressure	D-6	259
Sensor - NRS Intake Pressure	D-6	260
Sensor - NRS Temperature	D-6	261
Solenoid - Brake (1&3)	E-3	262
Solenoid - Brake (10&12)	E-1	263
Solenoid - Brake (2&4)	E-1	264
Solenoid - Brake (5&7)	E-3	265
Solenoid - Brake (6&8)	E-1	266
Solenoid - Brake (9&11)	E-3	267
Solenoid - NRS Flow Balance	C-6	268
Solenoid - NRS Valve Actuator	C-7	269
Switch - Battery Disconnect	C-2	270
Switch - Fuel Diff Pressure LH	F-4	271

CONNECTOR TABLE - CHASSIS

Connector Location - Vol 1 (Chassis)	
Connector Number	**Schematic Location**
CONN 1	J-16
CONN 2	G-16
CONN 3	E-14, G-7
CONN 4	D-14
CONN 5	D-14
CONN 6	C-14, H-7
CONN 7	G-13
CONN 8	G-12
CONN 9	G-12
CONN 10	E-12
CONN 11	D-12
CONN 12	D-12
CONN 13	A-13
CONN 14	J-10
CONN 15	I-10
CONN 16	H-11
CONN 17	G-11
CONN 18	F-10
CONN 19	F-10
CONN 20	B-11
CONN 21	A-10
CONN 22	J-9
CONN 23	J-7
CONN 24	I-7
CONN 25	I-7
CONN 26	G-8
CONN 27	G-7
CONN 28	F-8
CONN 29	F-8
CONN 30	F-8
CONN 31	F-7
CONN 32	F-7
CONN 33	E-7
CONN 34	E-7
CONN 35	E-7
CONN 36	D-7
CONN 37	C-7
CONN 38	C-7
CONN 39	B-8
CONN 40	A-7, A-8
CONN 41	D-5, H-5
CONN 42	F-5
CONN 43	D-5
CONN 44	C-5
CONN 45	A-5
CONN 46	A-5
CONN 47	J-4
CONN 48	I-4
CONN 49	D-3
CONN 50	G-4
CONN 51	G-4
CONN 52	F-3
CONN 53	E-3
CONN 54	D-3

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 TABLE - CAB

Connector Location - Vol 2 (CAB)		
Connector Number		Schematic Location
CONN 2		D-15
CONN 11		I-16
CONN 42		J-14
CONN 43		H-14
CONN 44		F-14
CONN 45		E-14
CONN 46		A-14
CONN 55		F-3, I-14
CONN 56		G-15
CONN 57		G-15
CONN 58		F-15
CONN 59		D-14
CONN 60		B-14
CONN 61		B-14
CONN 62		A-14
CONN 63		J-11
CONN 64		D-5, H-12
CONN 65		D-5, G-10
CONN 66		A-5, F-12
CONN 67		E-12
CONN 68		E-12
CONN 69		E-12
CONN 70		J-5
CONN 71		H-5, I-5
CONN 72		G-5, I-5
CONN 73		G-5, H-5
CONN 74		B-6, C-6
CONN 75		A-7
CONN 76		I-3
CONN 77	VIMS SERVICE PORT	J-1
CONN 78	ET SERVICE TOOL	F-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.

CONNECTOR TABLE - ENGINE

Connector Location - Vol 3 (Engine)	
Connector Number	**Schematic Location**
CONN 13	A-4
CONN 79	F-5
CONN 80	D-2, F-2, F-5
CONN 81	D-2, E-5, F-2
CONN 82	D-2, E-5, F-2
CONN 83	D-2, D-5, F-2
CONN 84	C-5
CONN 85	B-4
CONN 86	C-3
CONN 87	B-3

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.

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
- START AID CIRCUIT
- TRANSMISSION / ENGINE PUMP CONTROL CIRCUIT
- ENGINE CONTROL CIRCUIT
- TURN SIGNAL / WIPER WASHER CIRCUIT
- CAT DATA LINK
- CAN DATA LINK
- IMPLEMENT / VALVE / TOOL CONTROL CIRCUIT
- CAN DATA LINK A
- CAN DATA LINK B
- CAN DATA LINK D

OTHER COLOR DESCRIPTIONS

- HIGHWAYS

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

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

IDENT	PART NO	CHG	NOTE	DESCRIPTION
HARNESS AS.				
A	442-7244	00		TORQUE CONVERTER
C	436-8042	00		MAIN CHASSIS
E	440-6635	00		BRAKE
F	450-2498	00	ATCH	IMPLEMENT DISCHARGE SCREEN BYP SW
H	396-2003	00		RIGHT HOOD AND ETHER
J	448-1145	00		BEACON
K	386-8482	00	ATCH	SERVICE CENTER JUMPER
L	436-8043	00		TRANSMISSION SENSORS
W	385-1468	00		ROPS
AF	438-5350	00		RADIATOR
AG	436-8040	00	844K ONLY	FRONT FRAME - 844
AH	446-1482	00	ATCH 844K ONLY	AUTOLUBE PUMP - 844
AJ	438-1726	00	844K ONLY	LH FRONT FLOOD - 844
AL	436-8041	00	990K ONLY	RH FRONT FENDER LIGHTS - 990
AU	254-2301	01		TRANSMISSION SOLENOIDS
AV	441-9984	00	990K ONLY	VALVE HARNESS - 990
CF	389-9635	00	990K ONLY	TILT POSITION SENSORS
CL	417-2380	00	ATCH	AXLE OIL COOLER
EA	396-6965	00		FUEL TANK
FC	436-8039	00	990K ONLY	LIFT POSITION SENSOR
GE	443-9708	00		BUMPER
HC	386-8462	00		CENTER HOOD
HL	396-2004	00		LEFT HOOD
JA	438-1726	00	844K ONLY	RH FRONT FLOOD - 844
LF	390-9176	00		PLATFORM FLOOD
LH	436-8038	01	990K ONLY	FRONT FRAME - 990
LK	448-0493	00	ATCH	POWERED ACCESS STAIRWAY SWITCH JUMPER
MA	448-1894	00	ATCH 990K ONLY	STEEL MAIN MAIN - 990
MJ	448-1891	00	ATCH 990K ONLY	STEEL MILL BUMPER JUMPER - 990
MK	418-5134	00	ATCH 990K ONLY	STEEL MILL IMPLEMENT TANK - 990
MT	395-1124	00	ATCH	SERVICE CENTER
PL	438-5347	00		PLATFORM
PM	442-7245	00	990K ONLY	IMPLEMENT PUMPS
PT	386-8312	00		BUTTERFLY PLATE
RA	390-9179	00		REAR AXLE
RL	355-9620	00	ATCH 990K ONLY	AUTOLUBE - 990
RR	394-6999	00		CAT DETECT RADAR
TK	451-3872	00		IMPLEMENT TANK
TL	417-8833	00		FRONT HOOD
TM	444-0361	00		NON-SERVICE CENTER CAN JUMPER
YA	436-8041	00	990K ONLY	LH FRONT FENDER LIGHTS - 990

CALLOUTS

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

THIS SCHEMATIC IS FOR THE 844K WHEEL DOZER AND 990K WHEEL LOADER ELECTRICAL SYSTEM
VOLUME 1 of 3: CHASSIS WIRING

MEDIA NUMBER: UENR1697

SCHEMATIC PART NUMBER: 420-4822, 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.
Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.

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

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 / ENGINE PUMP 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
- IMPLEMENT / VALVE / TOOL CONTROL CIRCUIT
- CAN DATA LINK A
- CAN DATA LINK D

OTHER COLOR DESCRIPTIONS

- HIGHWAYS

CALLOUTS

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

THIS SCHEMATIC IS FOR THE 844K WHEEL DOZER AND 990K WHEEL LOADER ELECTRICAL SYSTEM

VOLUME 2 of 3: CAB WIRING

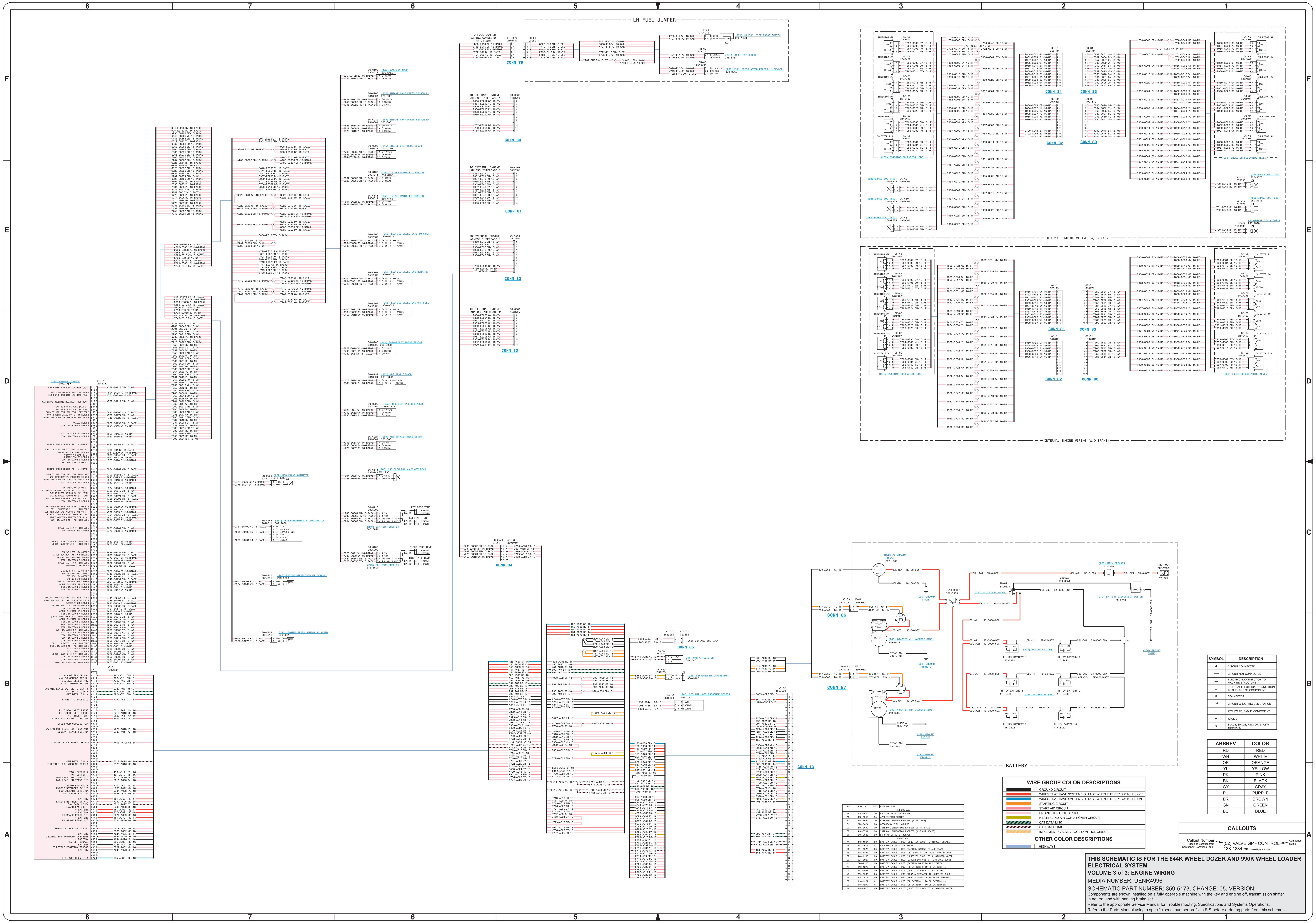
MEDIA NUMBER: UENR1697

SCHEMATIC PART NUMBER: 420-4823, 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.

Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.



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
	BLADE, SPADE, RING OR SCREW TERMINAL

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

IDENT	PART NO	CHG	DESCRIPTION
			HARNESS AS.
M	348-3646	00	LH STARTER MOTOR JUMPER
AC	438-5349	00	APPLICATION ENGINE
EG	444-3502	00	EXTERNAL ENGINE HARNESS (HIGH TEMP)
FH	373-0424	00	SECONDARY FUEL HARNESS
GC	418-8699	00	INTERNAL INJECTION HARNESS (WITH BRAKE)
GF	418-8701	00	INTERNAL INJECTION HARNESS (WITHOUT BRAKE)
MF	348-3646	00	RH STARTER MOTOR JUMPER
			CABLE AS.
AA	448-1024	00	BATTERY CABLE - POS (JUNCTION BLOCK TO CIRCUIT BREAKER)
AR	342-9671	01	RECEPTACLE AS - AUX START
CC	391-5929	00	BATTERY CABLE - NEG (BATTERY GROUND TO AUX START)
EE	438-5348	00	BATTERY CABLE - POS (CKT BRKR TO CAB PASS-THROUGH POST)
FF	448-1100	00	BATTERY CABLE - POS (JUNCTION BLOCK TO RH STARTER MOTOR)
GG	391-5927	00	BATTERY CABLE - NEG (DISCONNECT SWITCH TO GROUND BOSS)
JJ	396-7120	00	BATTERY CABLE - POS (BATTERY BANK TO AUX START)
KK	118-1277	01	BATTERY CABLE - POS (RH BATTERY 3 TO RH BATTERY 4)
LL	391-5928	00	BATTERY CABLE - POS (JUNCTION BLOCK TO AUX START)
ME	399-6938	00	BATTERY CABLE - POS (150A ALTERNATOR TO JUNCTION BLOCK)
MV	415-2513	00	BATTERY CABLE - NEG (150A ALTERNATOR TO FRAME GROUND)
PP	118-1277	01	BATTERY CABLE - POS (RH BATTERY 1 TO RH BATTERY 2)
UU	118-1277	01	BATTERY CABLE - POS (LH BATTERY 1 TO LH BATTERY 2)
WW	448-1070	00	BATTERY CABLE - POS (JUNCTION BLOCK TO RH STARTER MOTOR)

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
	START AID CIRCUIT
	ENGINE CONTROL CIRCUIT
	HEATER AND AIR CONDITIONER CIRCUIT
	CAT DATA LINK
	CAN DATA LINK
	IMPLEMENT / VALVE / TOOL CONTROL CIRCUIT

OTHER COLOR DESCRIPTIONS

	HIGHWAYS

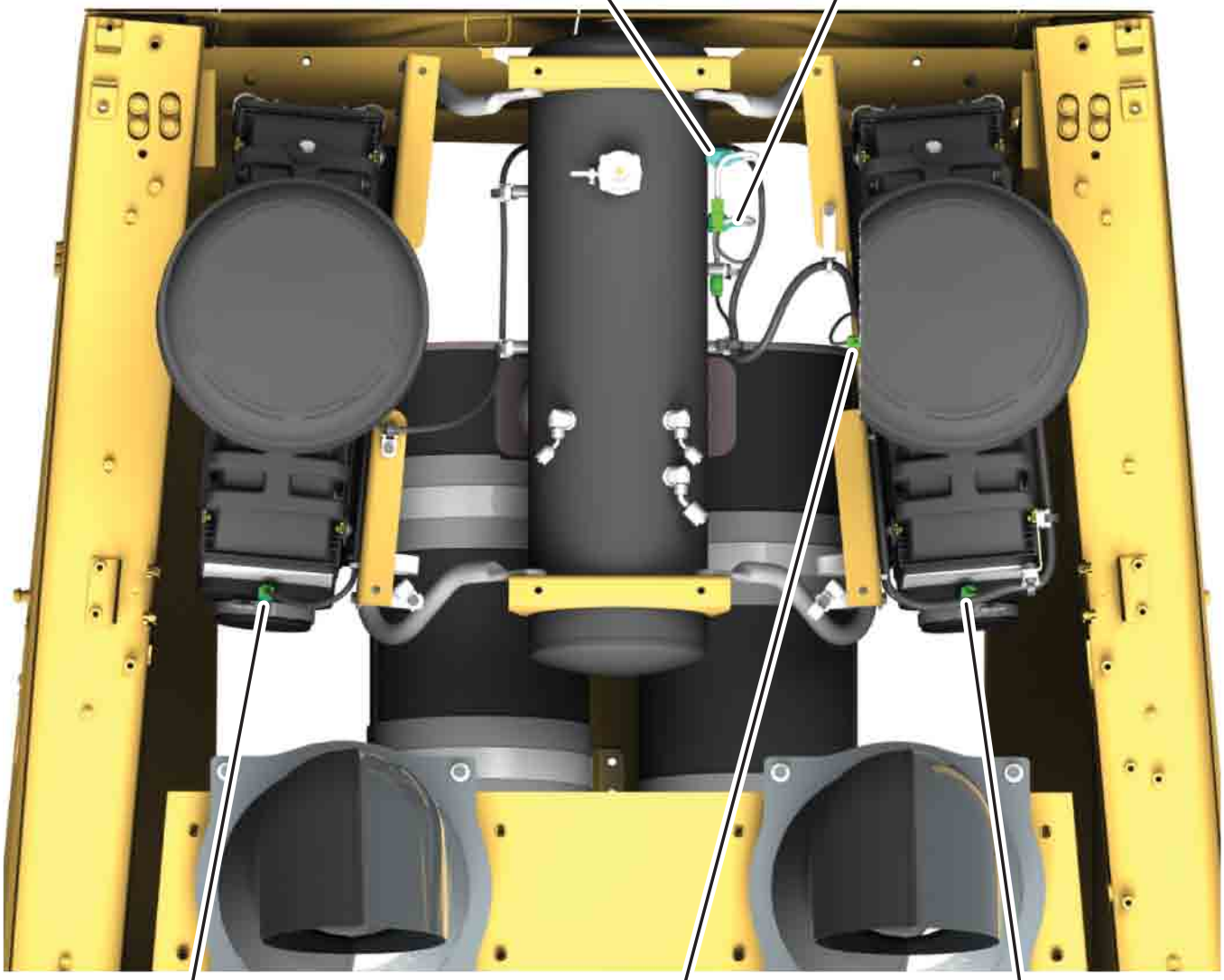
CALLOUTS

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

THIS SCHEMATIC IS FOR THE 844K WHEEL DOZER AND 990K WHEEL LOADER ELECTRICAL SYSTEM
VOLUME 3 of 3: ENGINE WIRING
MEDIA NUMBER: UENR4996
SCHEMATIC PART NUMBER: 359-5173, CHANGE: 05, 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.
Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.

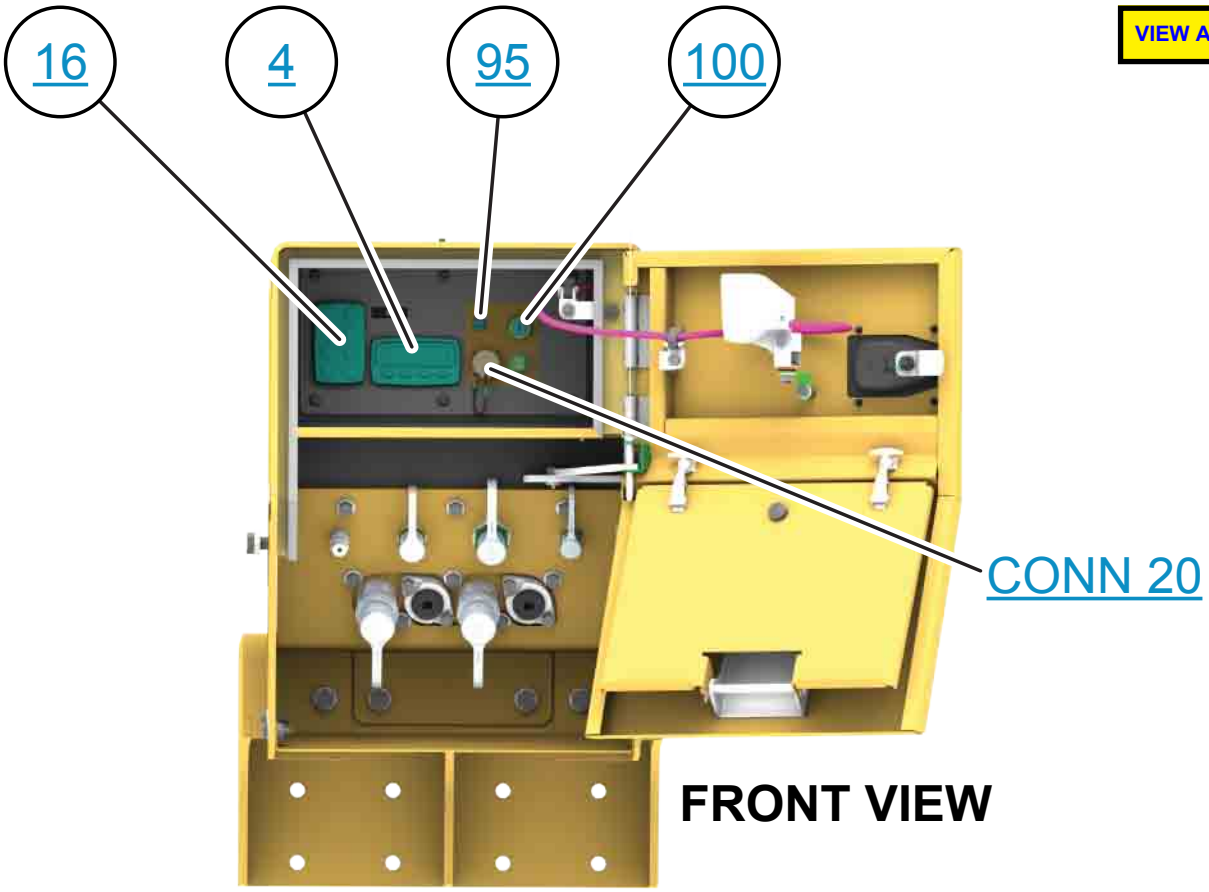
TOP REAR HOOD VIEW

VIEW ALL CALLOUTS

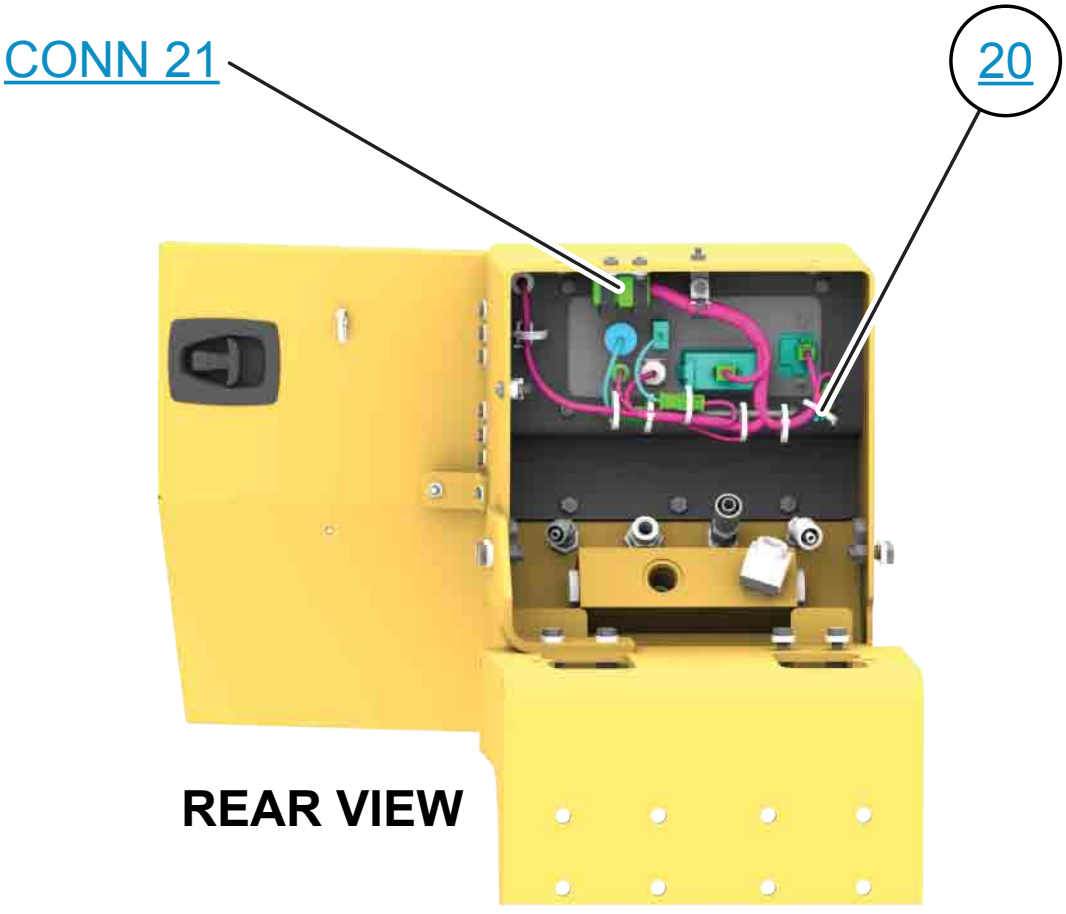


SERVICE CENTER VIEW

VIEW ALL CALLOUTS



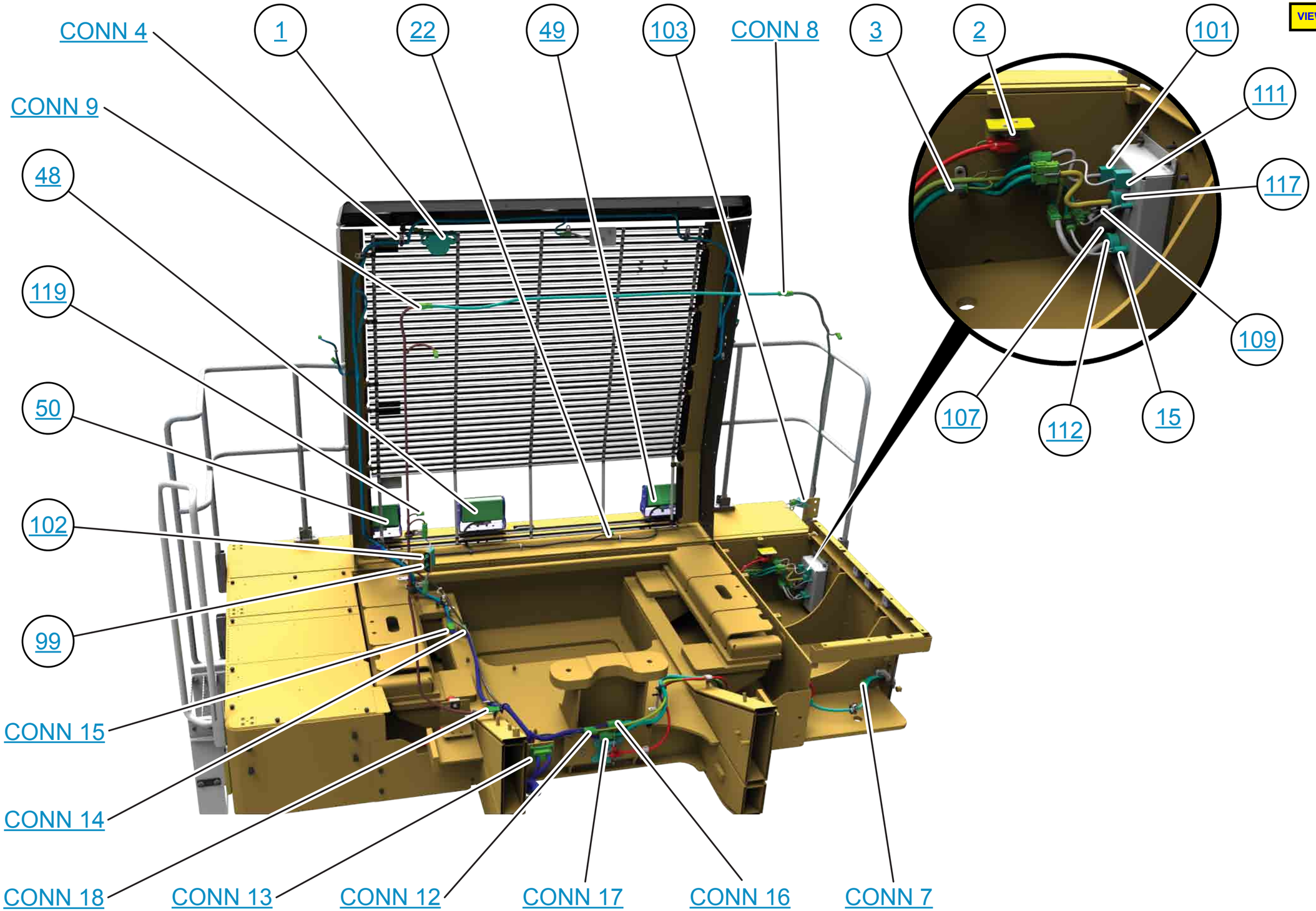
FRONT VIEW



REAR VIEW

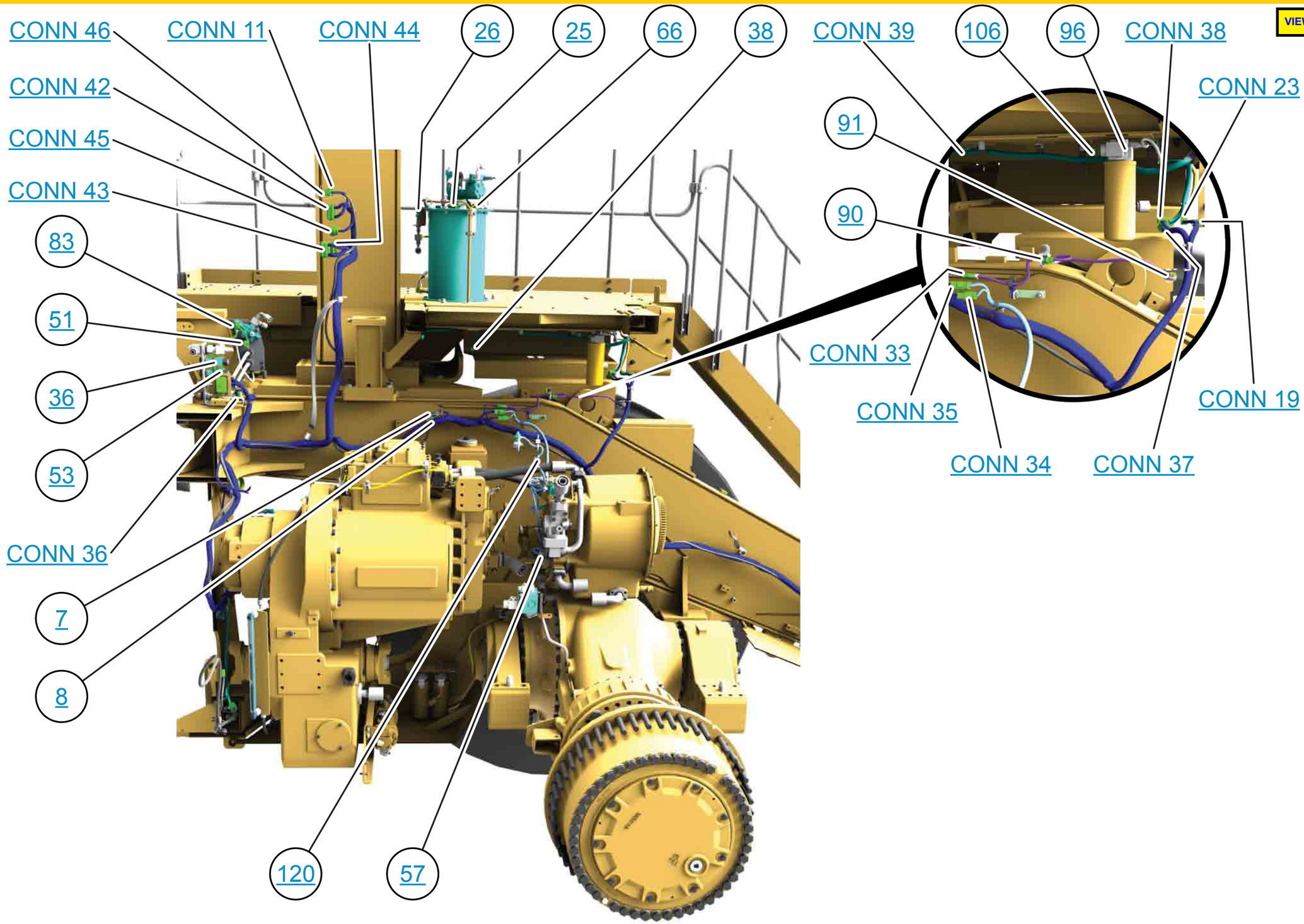
REAR BUMPER VIEW

VIEW ALL CALLOUTS



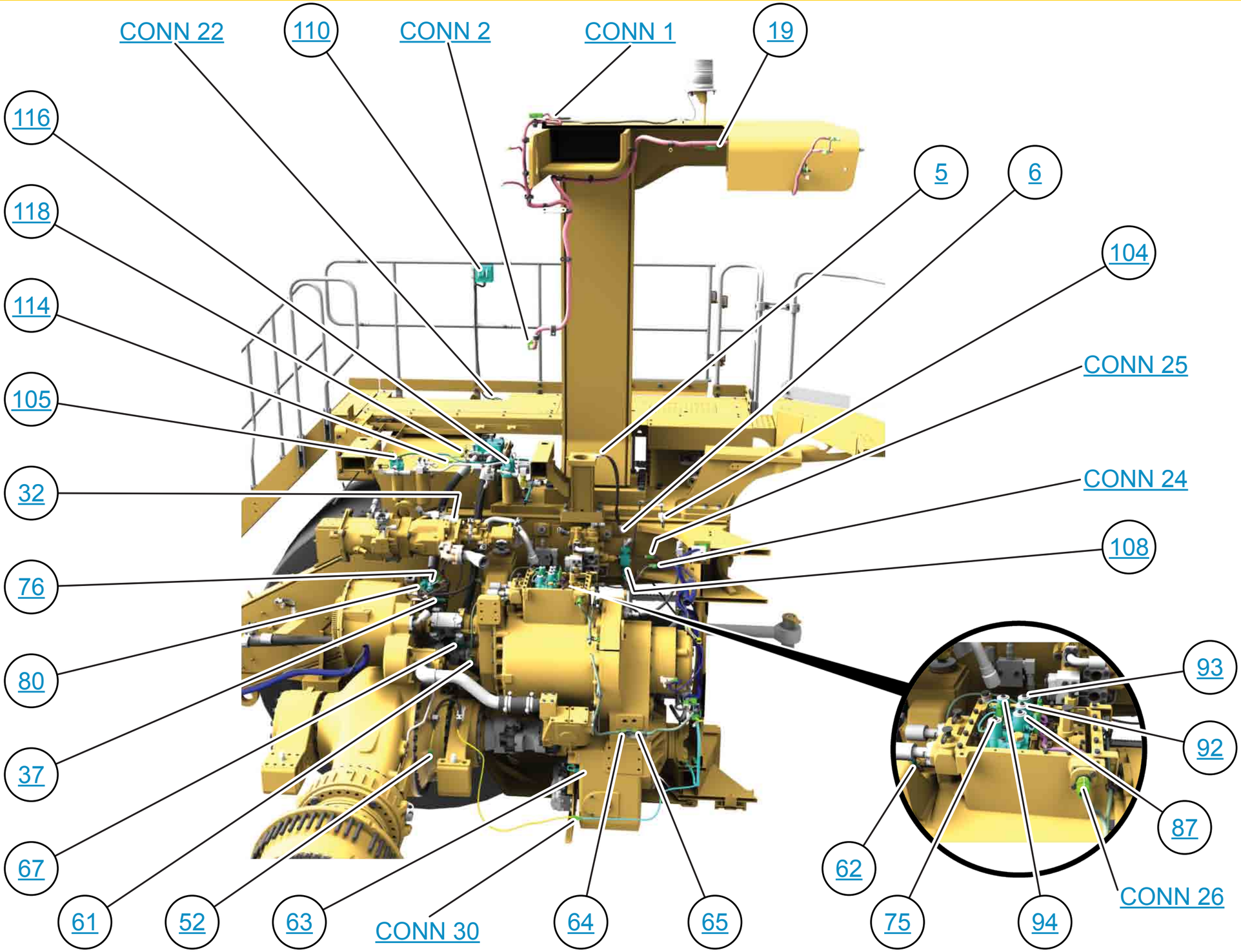
INSIDE RIGHT CHASSIS VIEW

VIEW ALL CALLOUTS



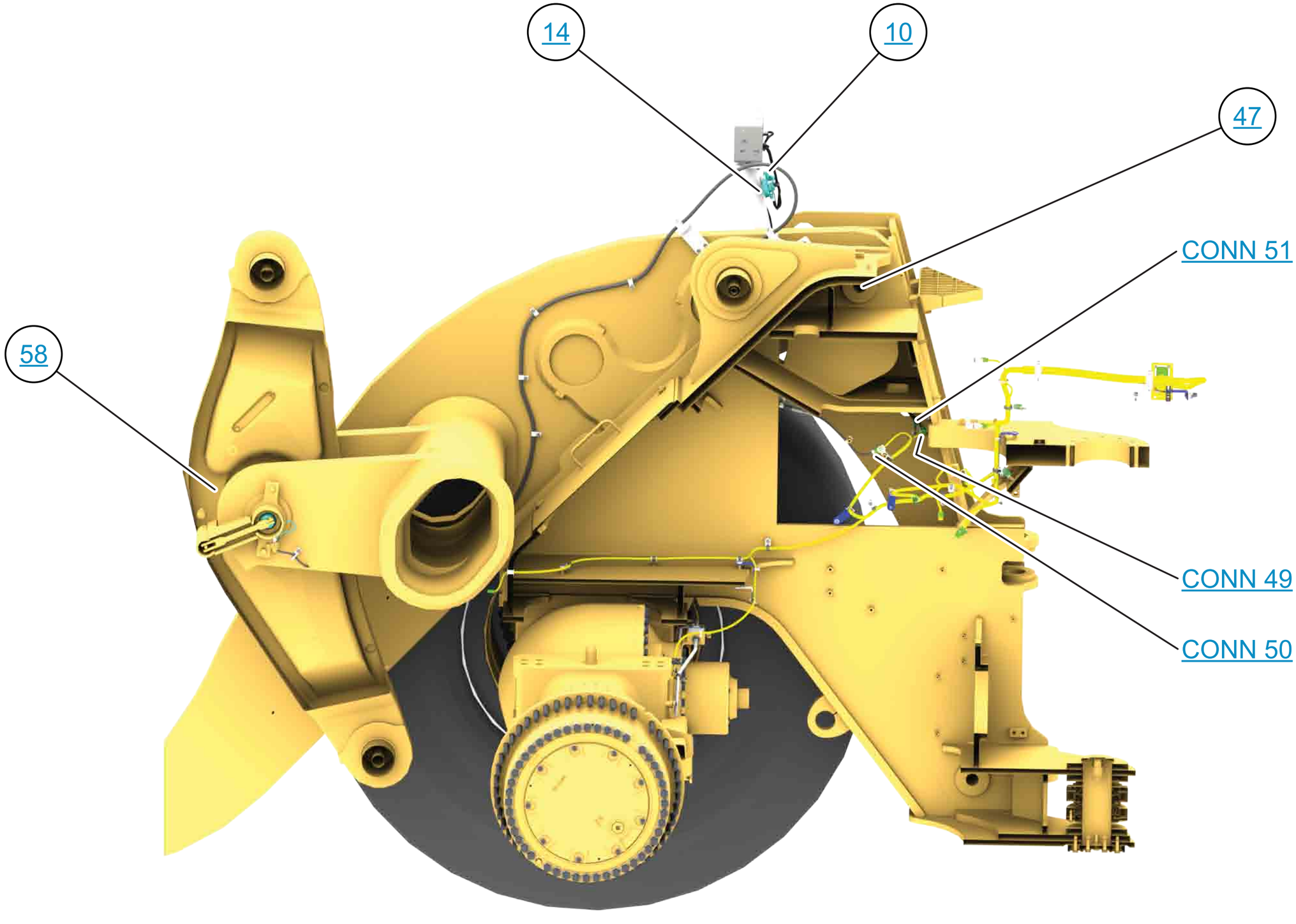
INSIDE LEFT CHASSIS VIEW

VIEW ALL CALLOUTS



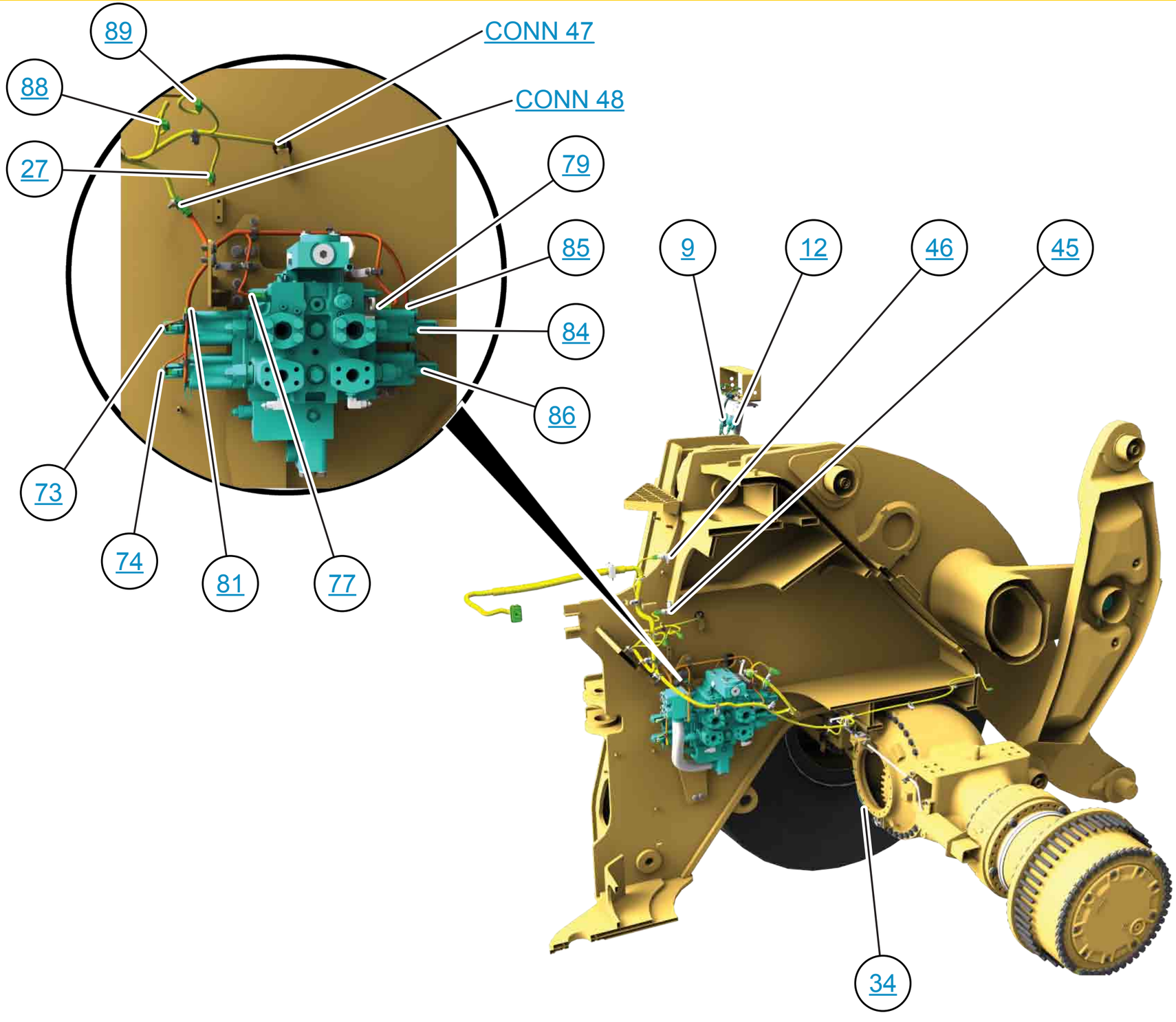
INSIDE FRONT RIGHT CHASSIS VIEW (990K)

VIEW ALL CALLOUTS



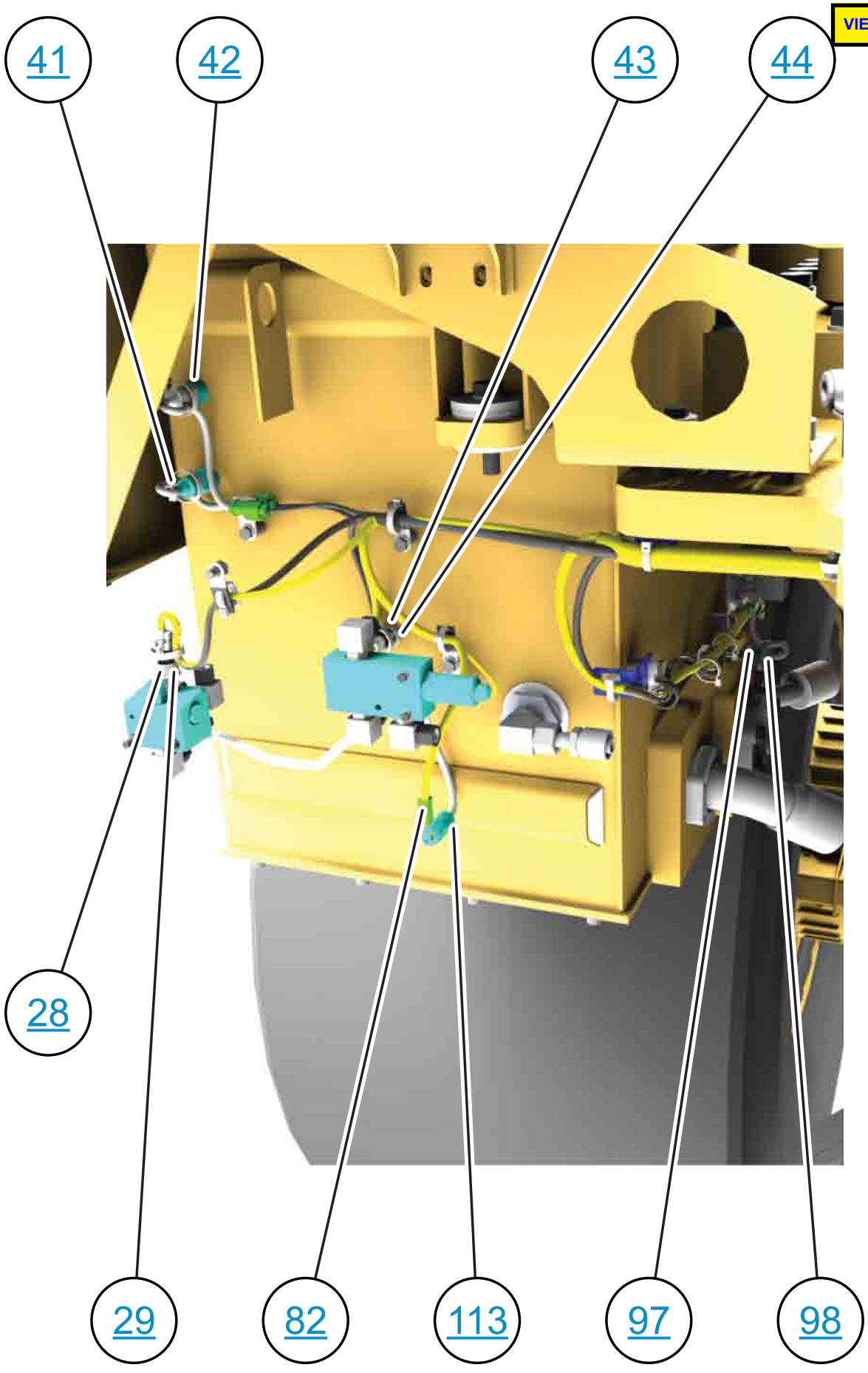
INSIDE FRONT LEFT CHASSIS VIEW (990K)

VIEW ALL CALLOUTS



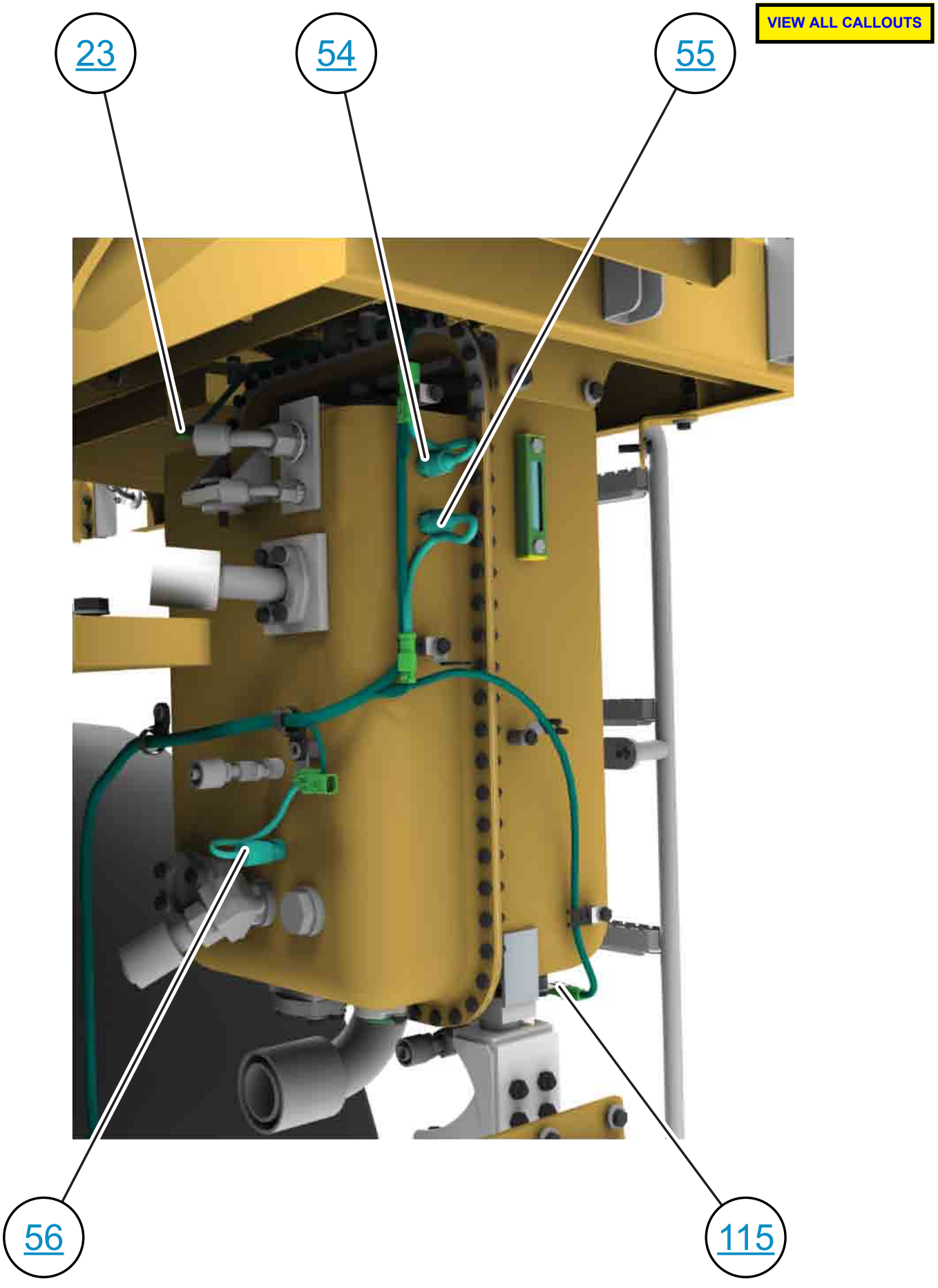
IMPLEMENT TANK FRONT VIEW

VIEW ALL CALLOUTS



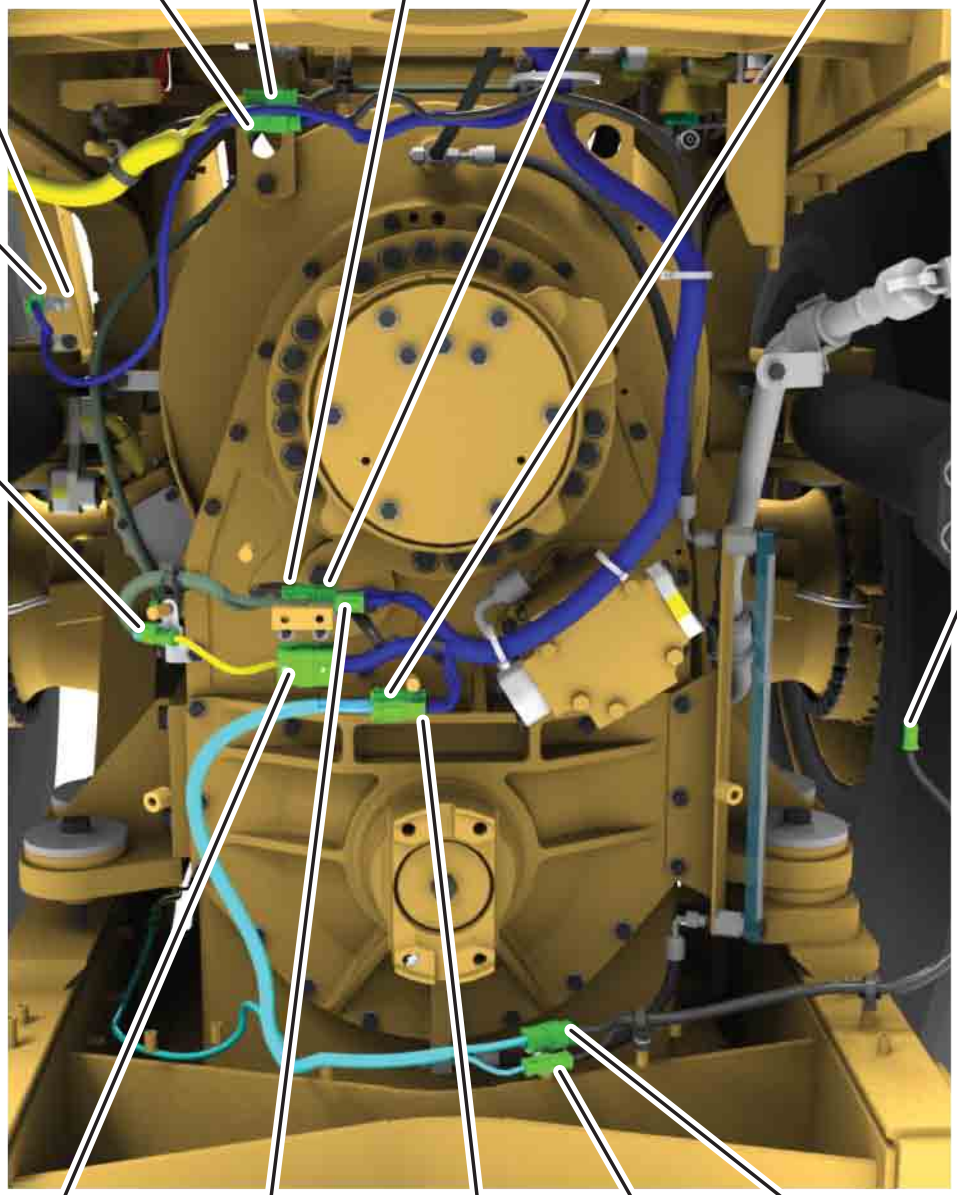
FUEL TANK FRONT VIEW

VIEW ALL CALLOUTS



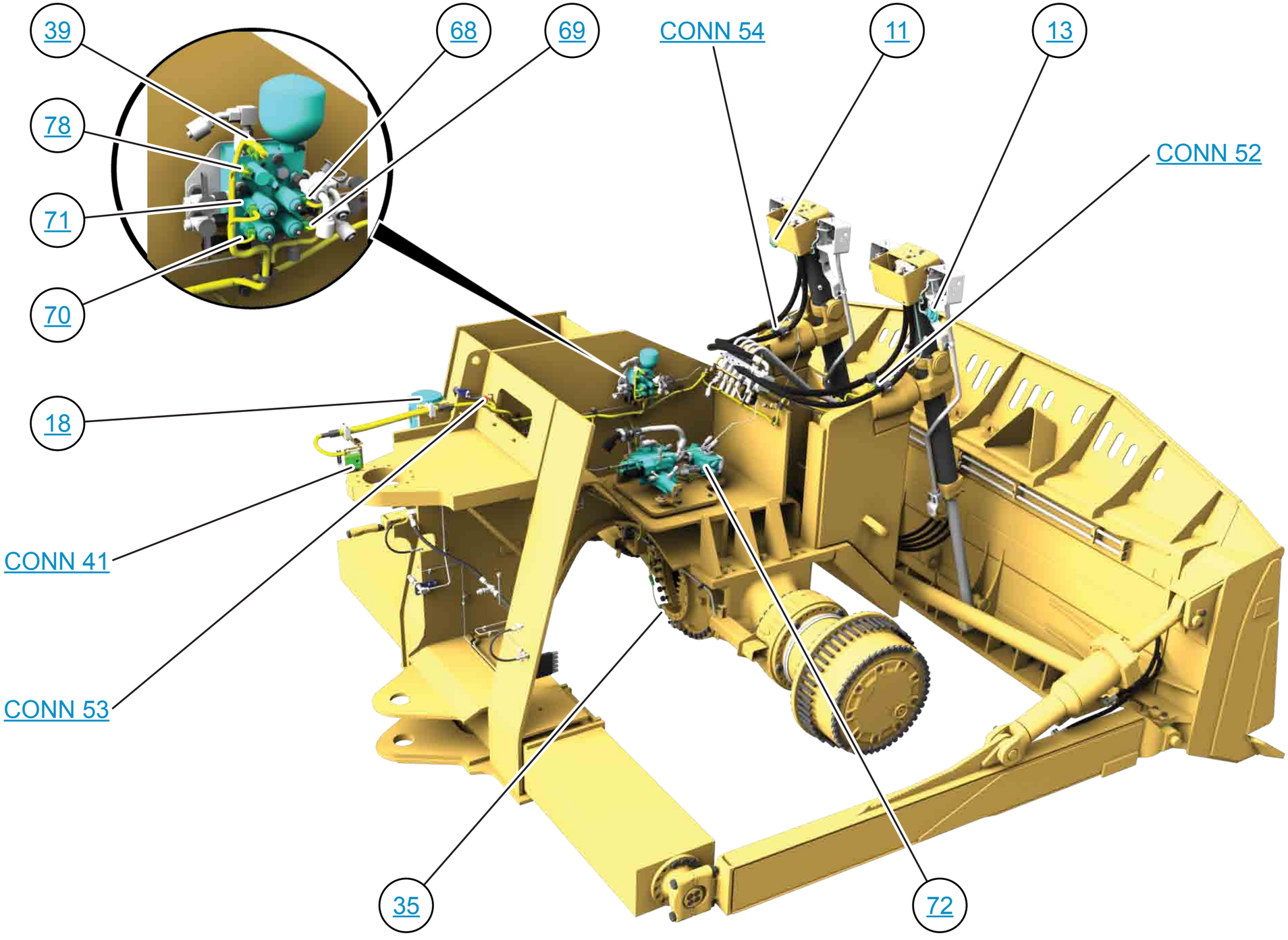
FRONT MACHINE VIEW

VIEW ALL CALLOUTS



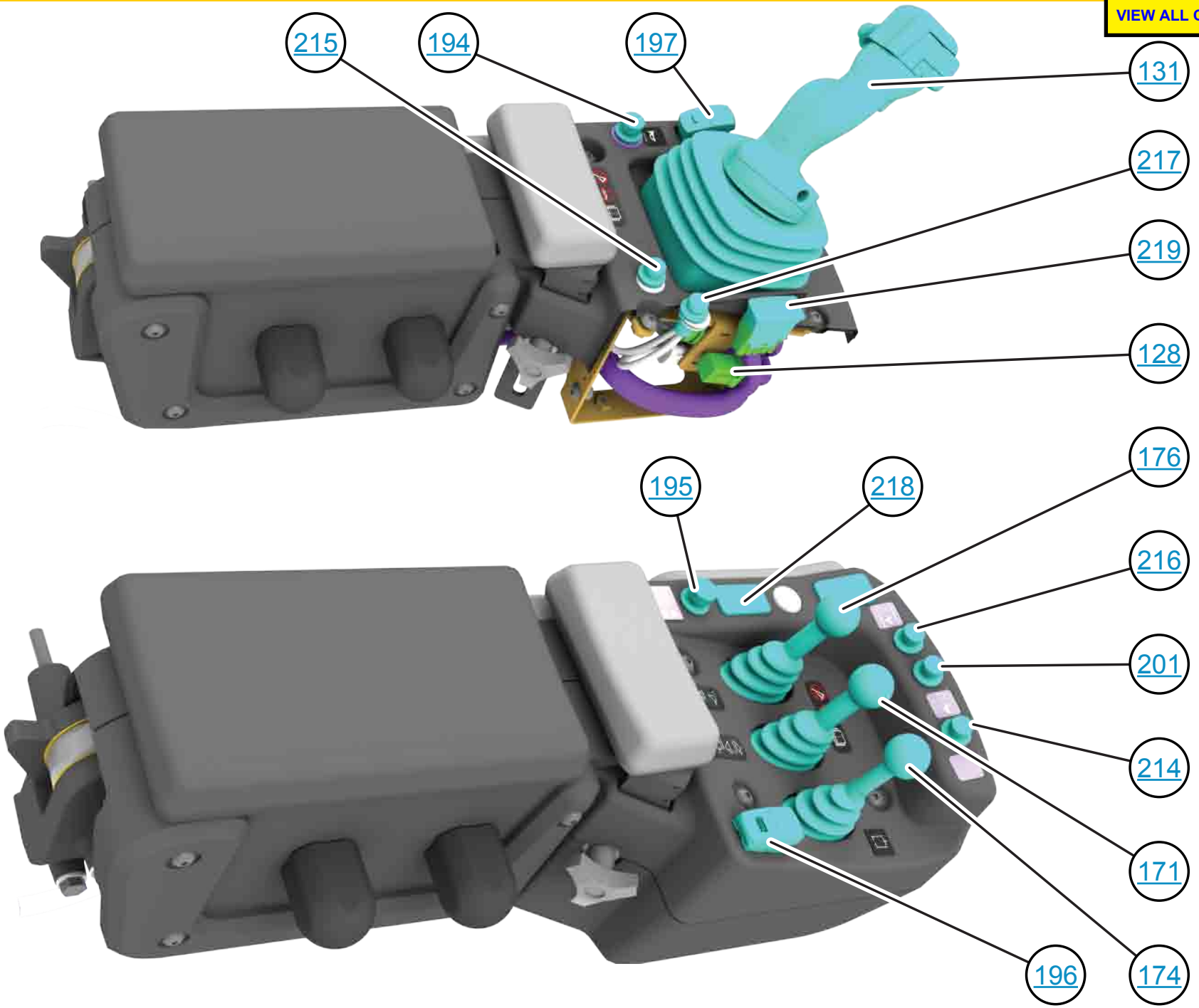
FRONT CHASSIS VIEW (844K)

VIEW ALL CALLOUTS



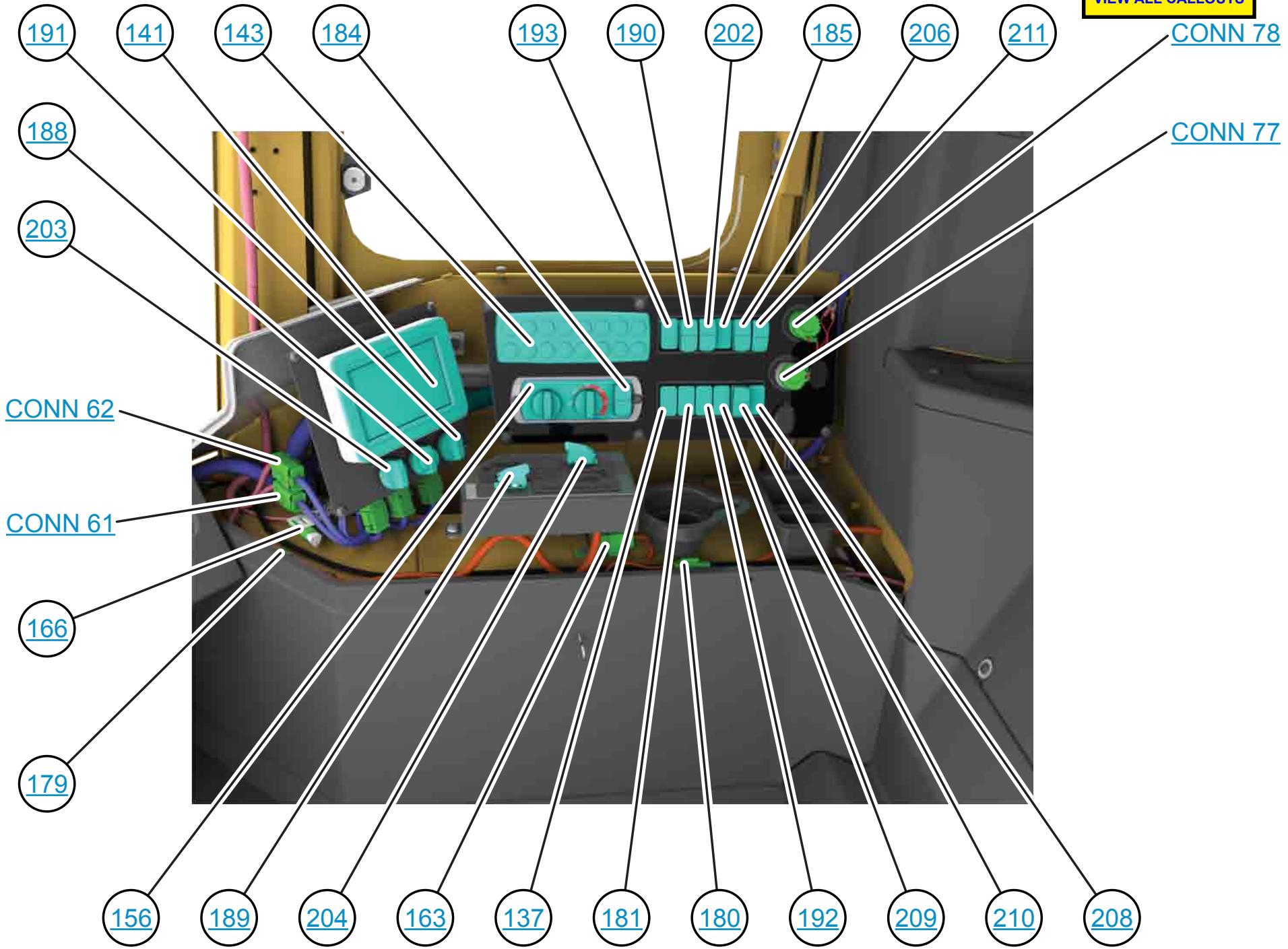
RIGHT HAND IMPLEMENT POD VIEW

VIEW ALL CALLOUTS



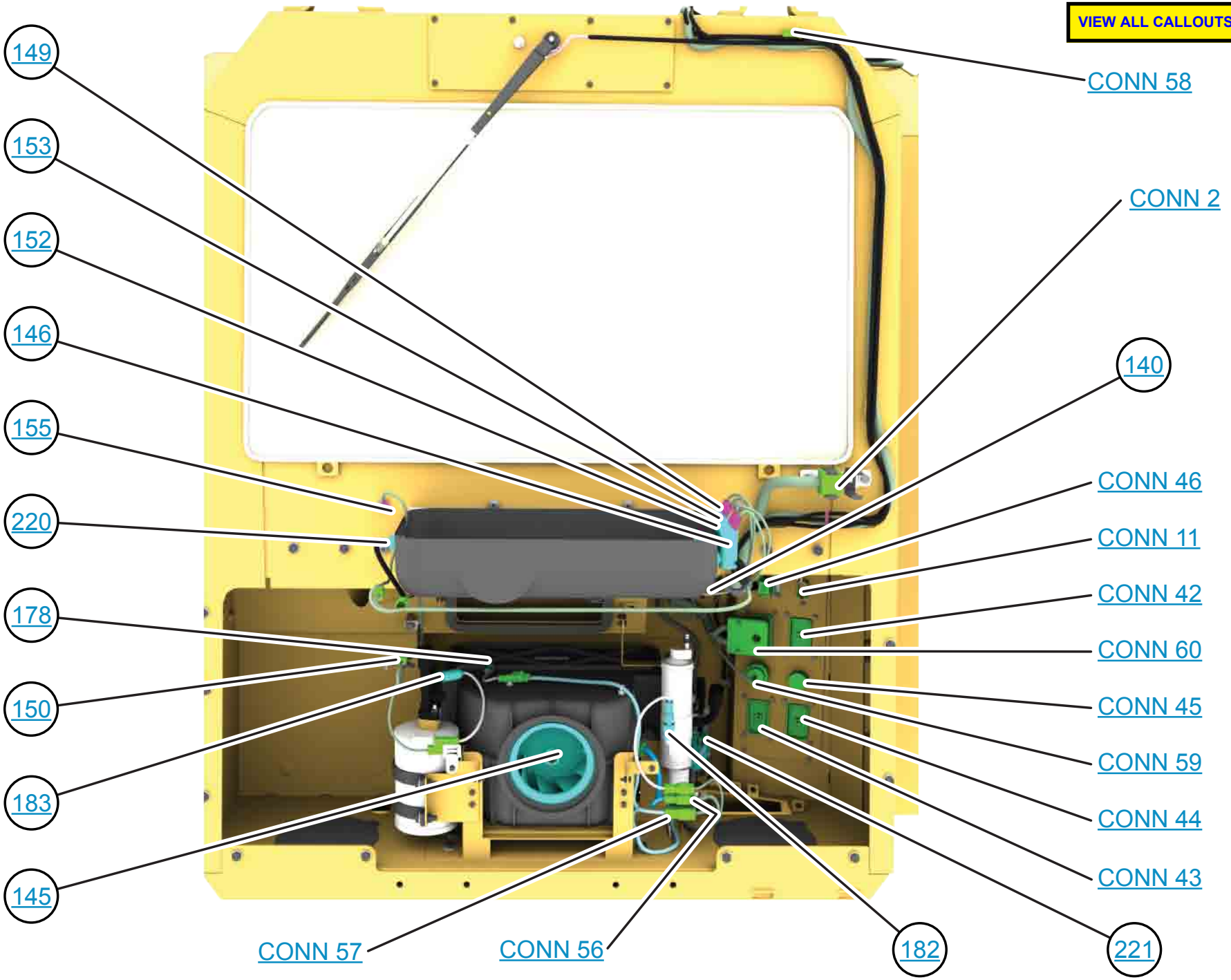
RIGHT CONSOLE VIEW

VIEW ALL CALLOUTS



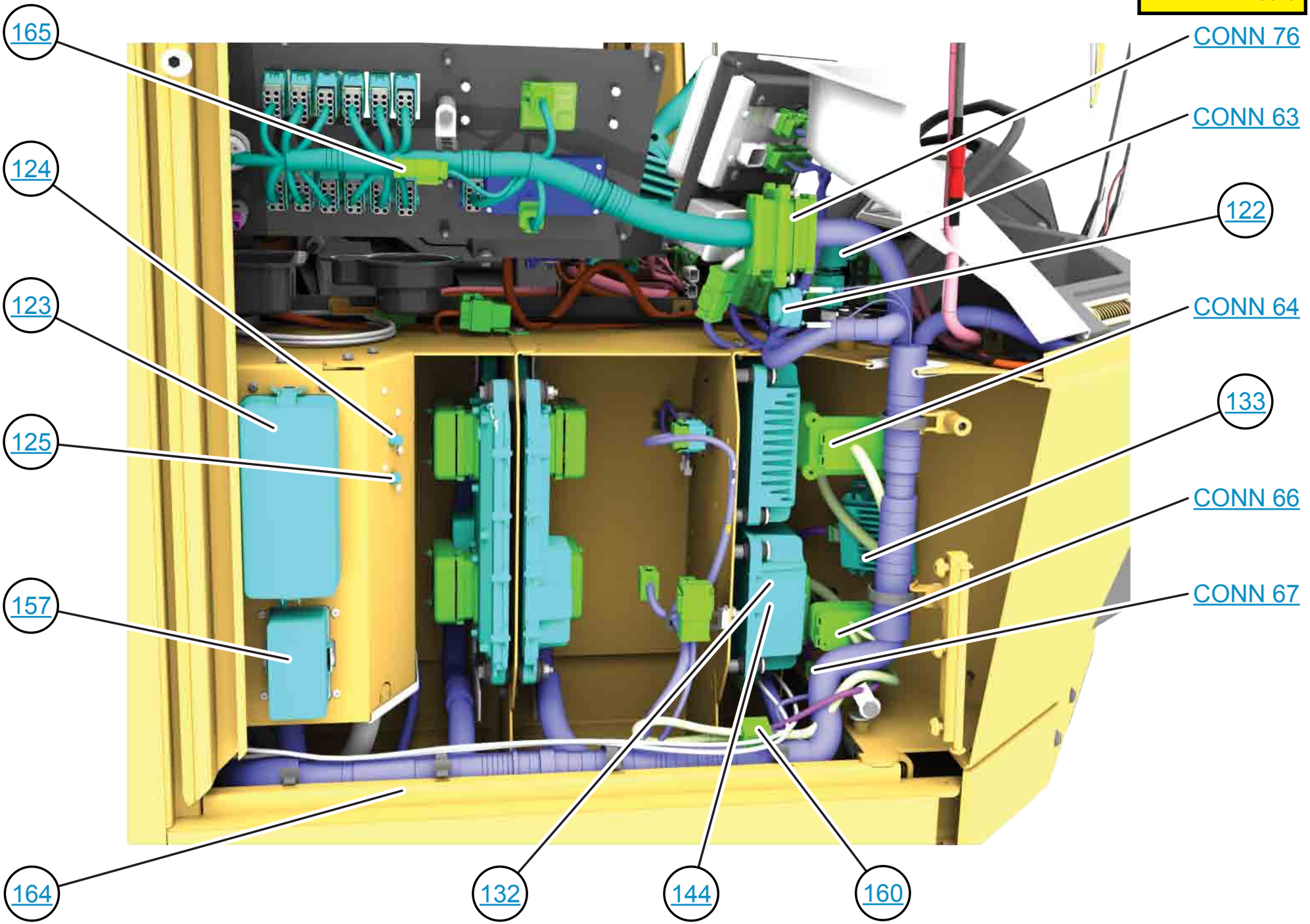
REAR CAB VIEW

VIEW ALL CALLOUTS



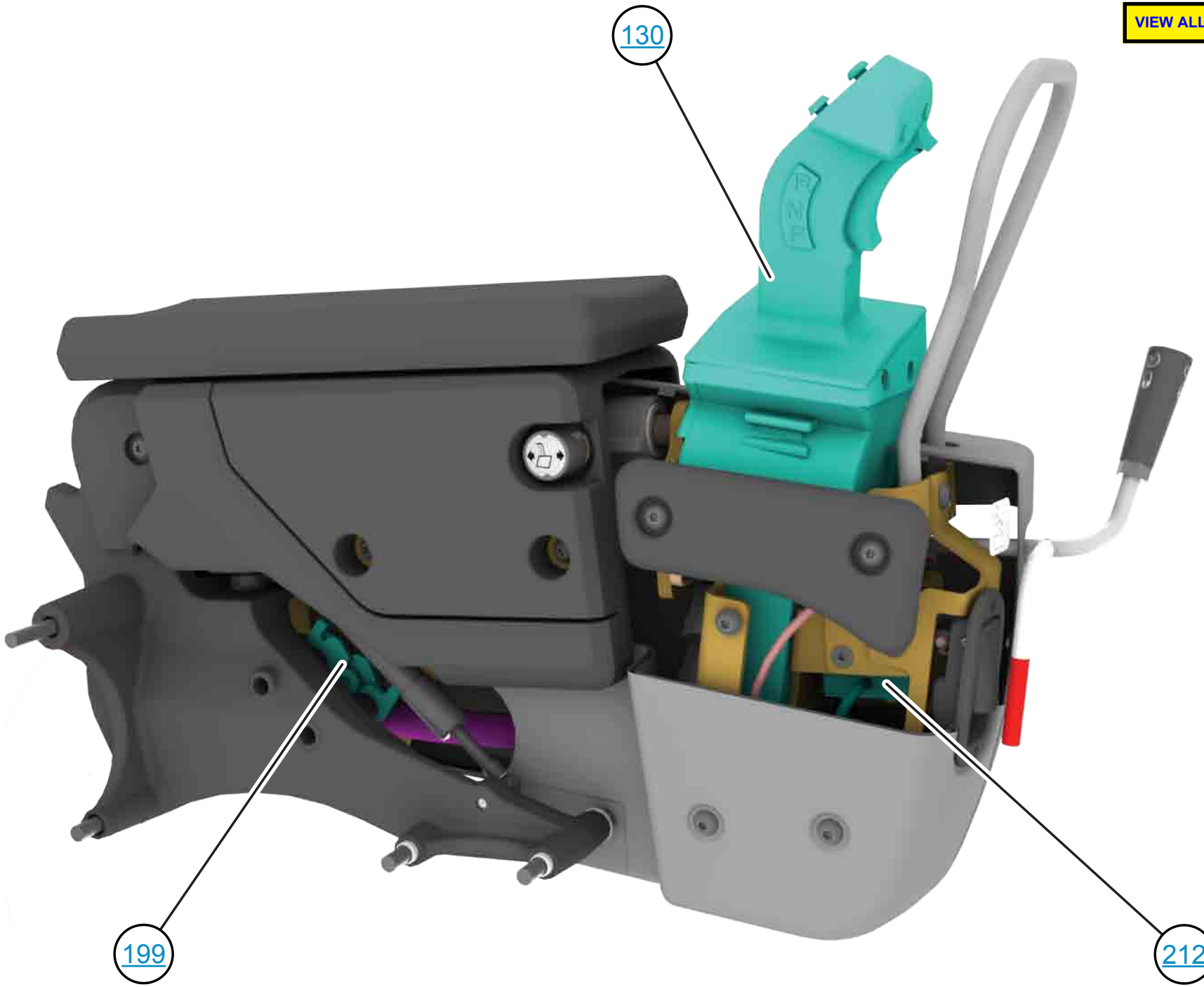
OUTSIDE RIGHT CONSOLE VIEW

VIEW ALL CALLOUTS



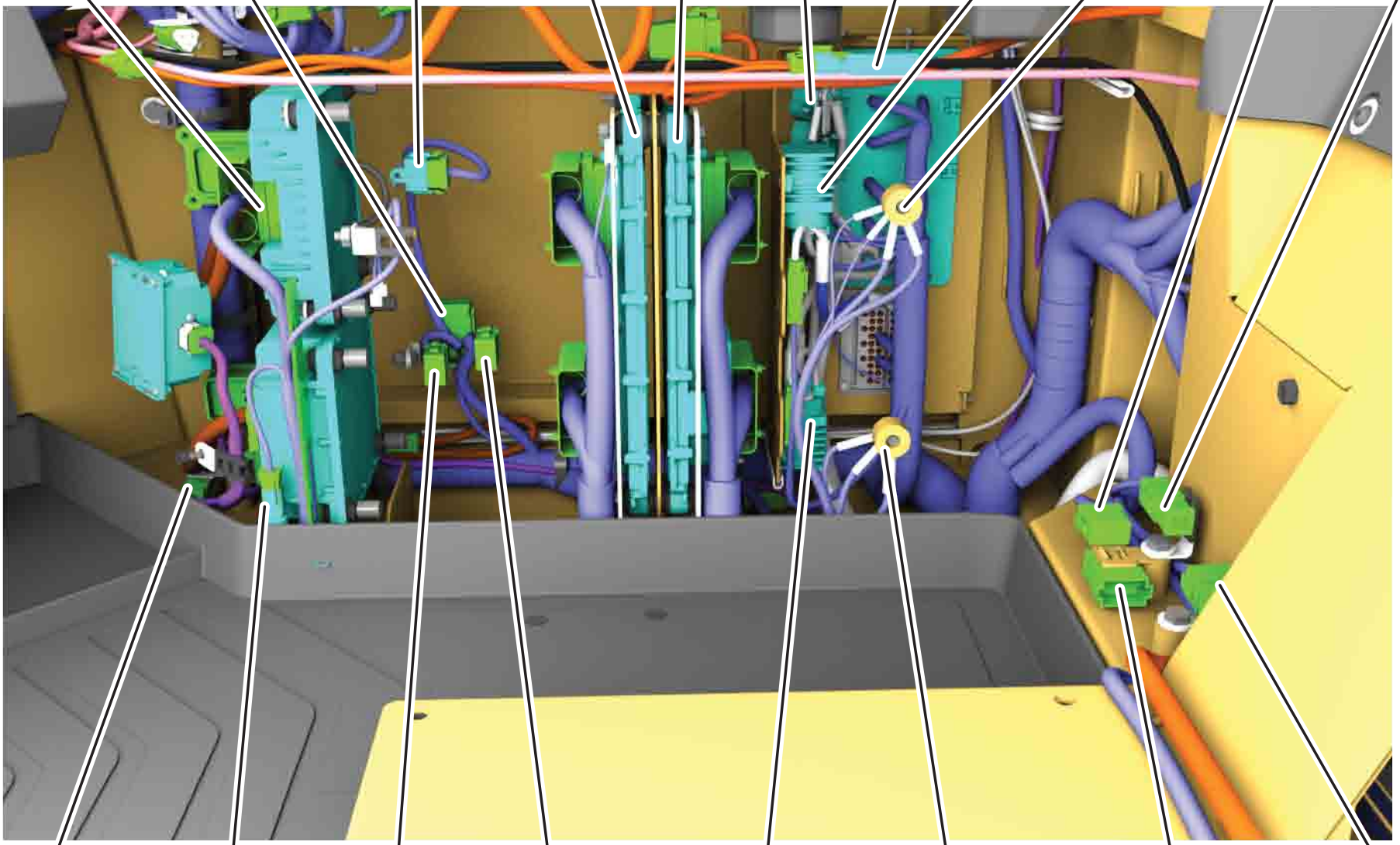
LEFT HAND IMPLEMENT POD VIEW

VIEW ALL CALLOUTS



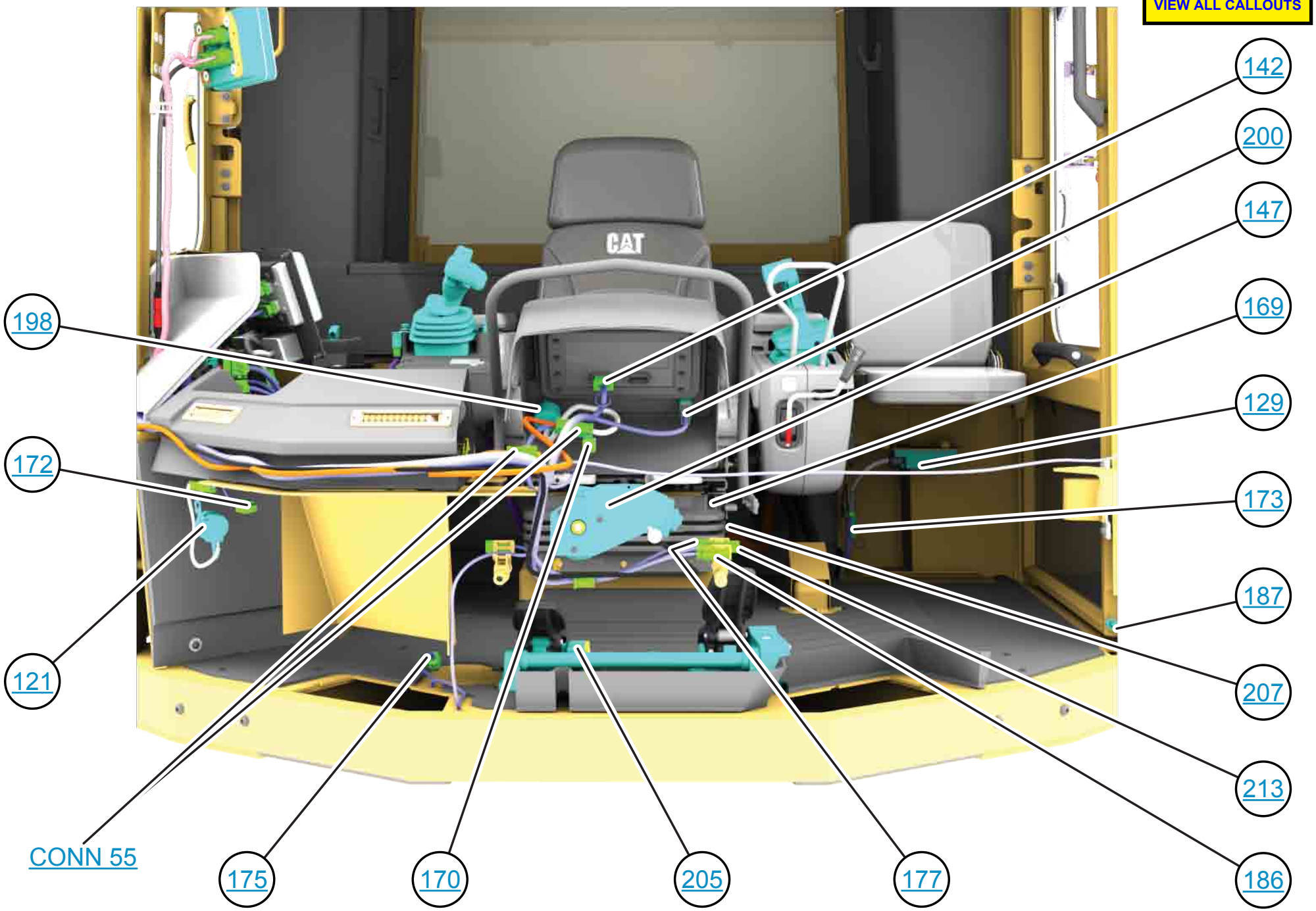
INSIDE RIGHT CONSOLE VIEW

VIEW ALL CALLOUTS



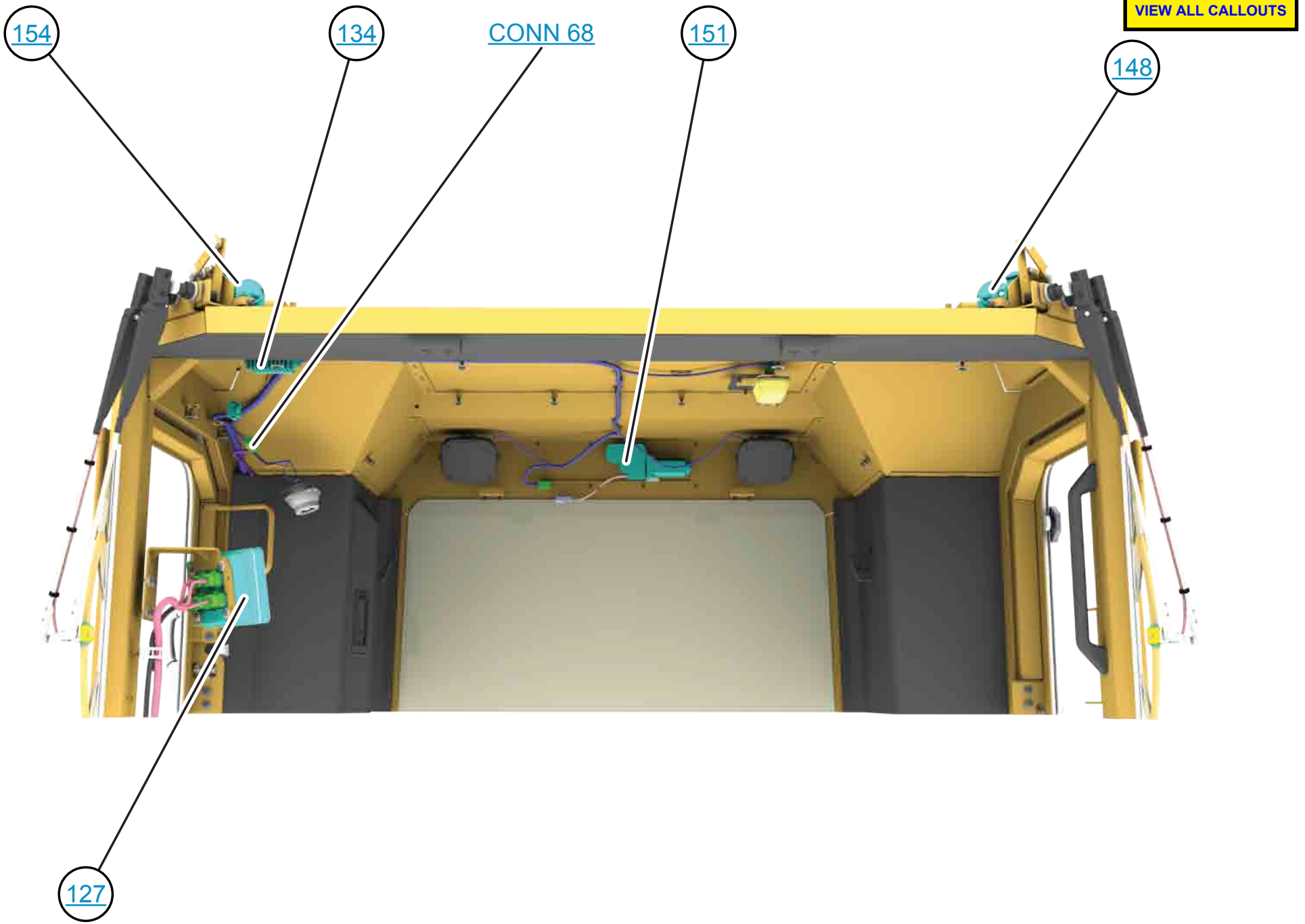
FRONT CAB VIEW

VIEW ALL CALLOUTS



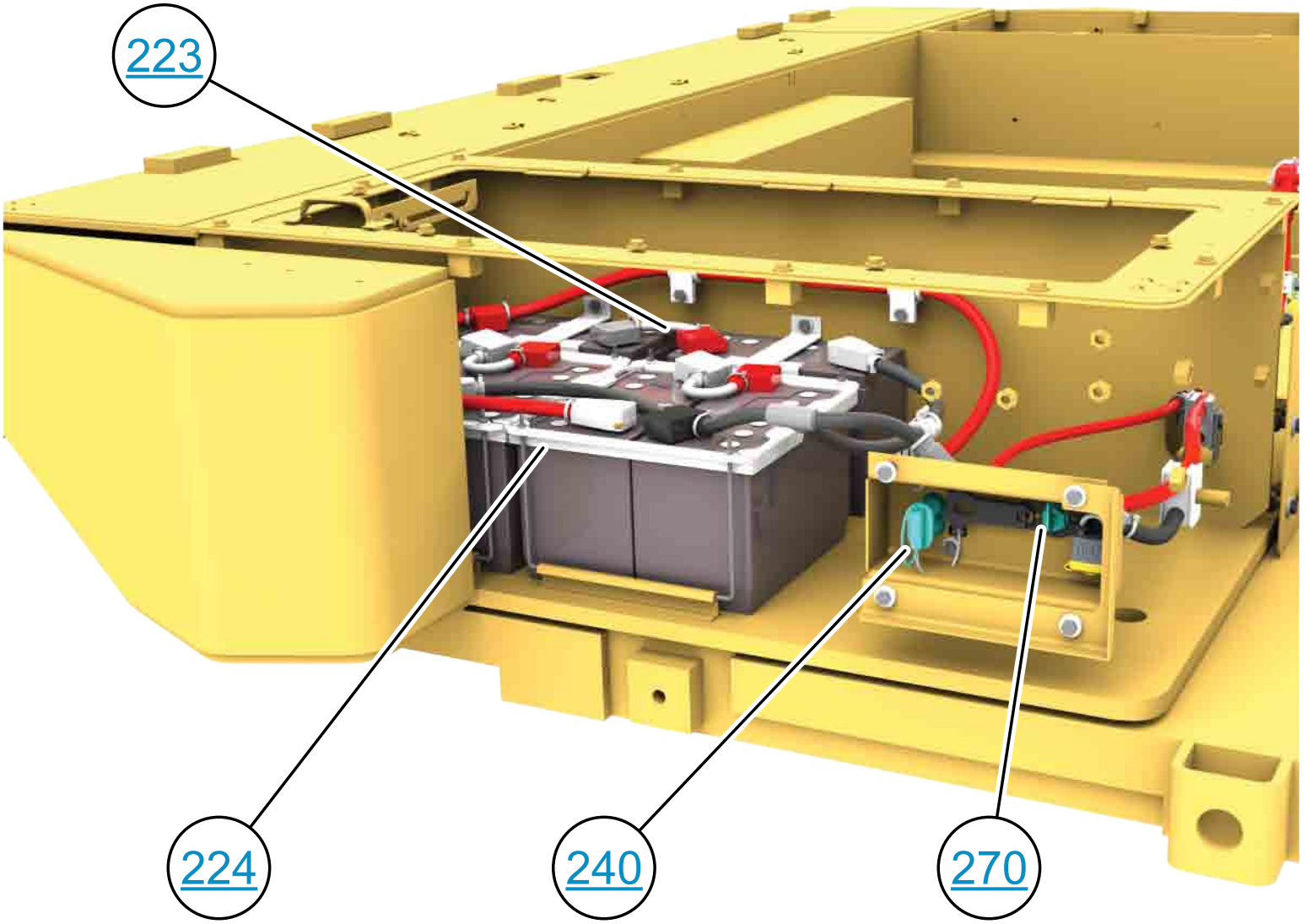
CAB FRONT TOP VIEW

VIEW ALL CALLOUTS



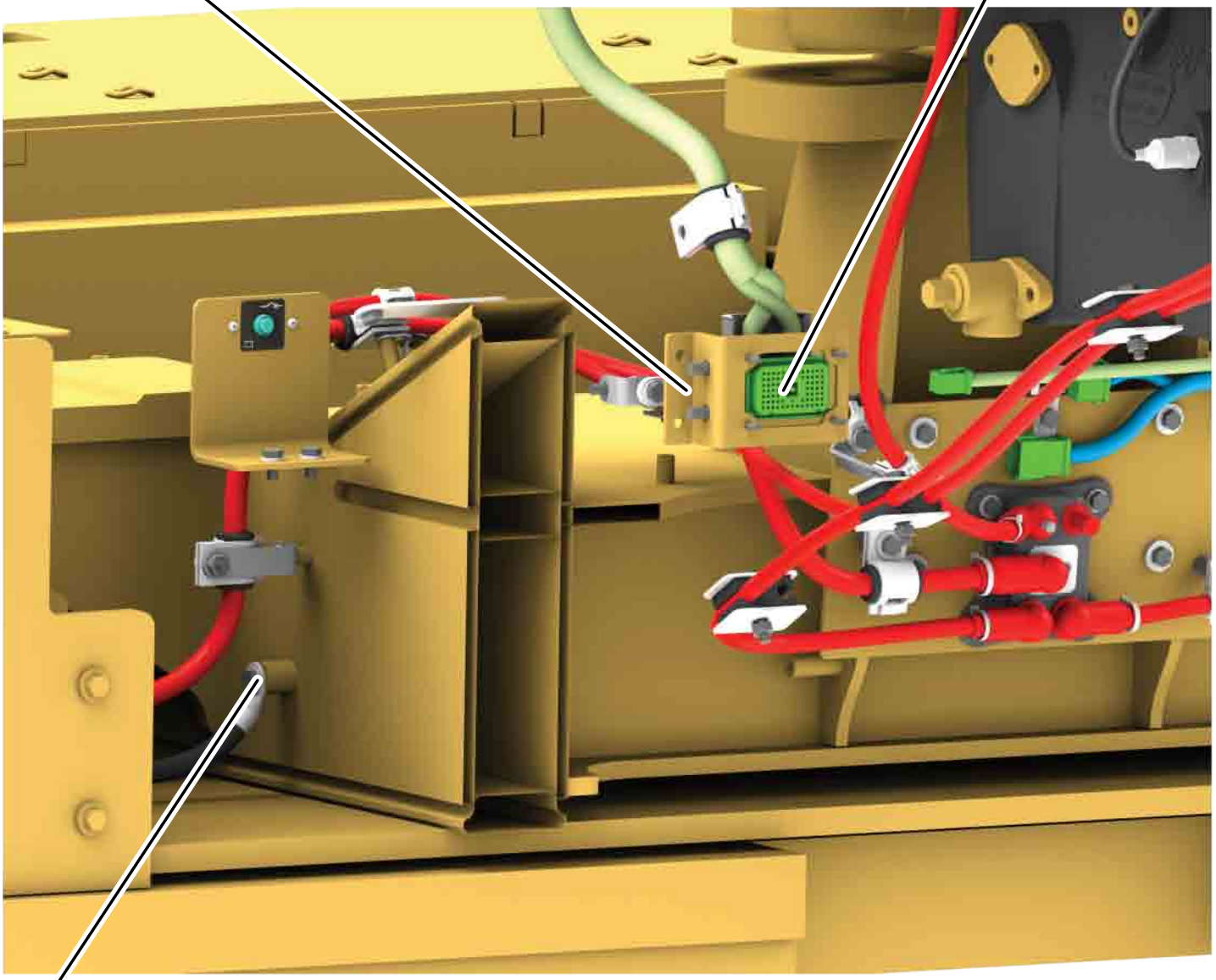
RIGHT SIDE REAR BUMPER VIEW

VIEW ALL CALLOUTS

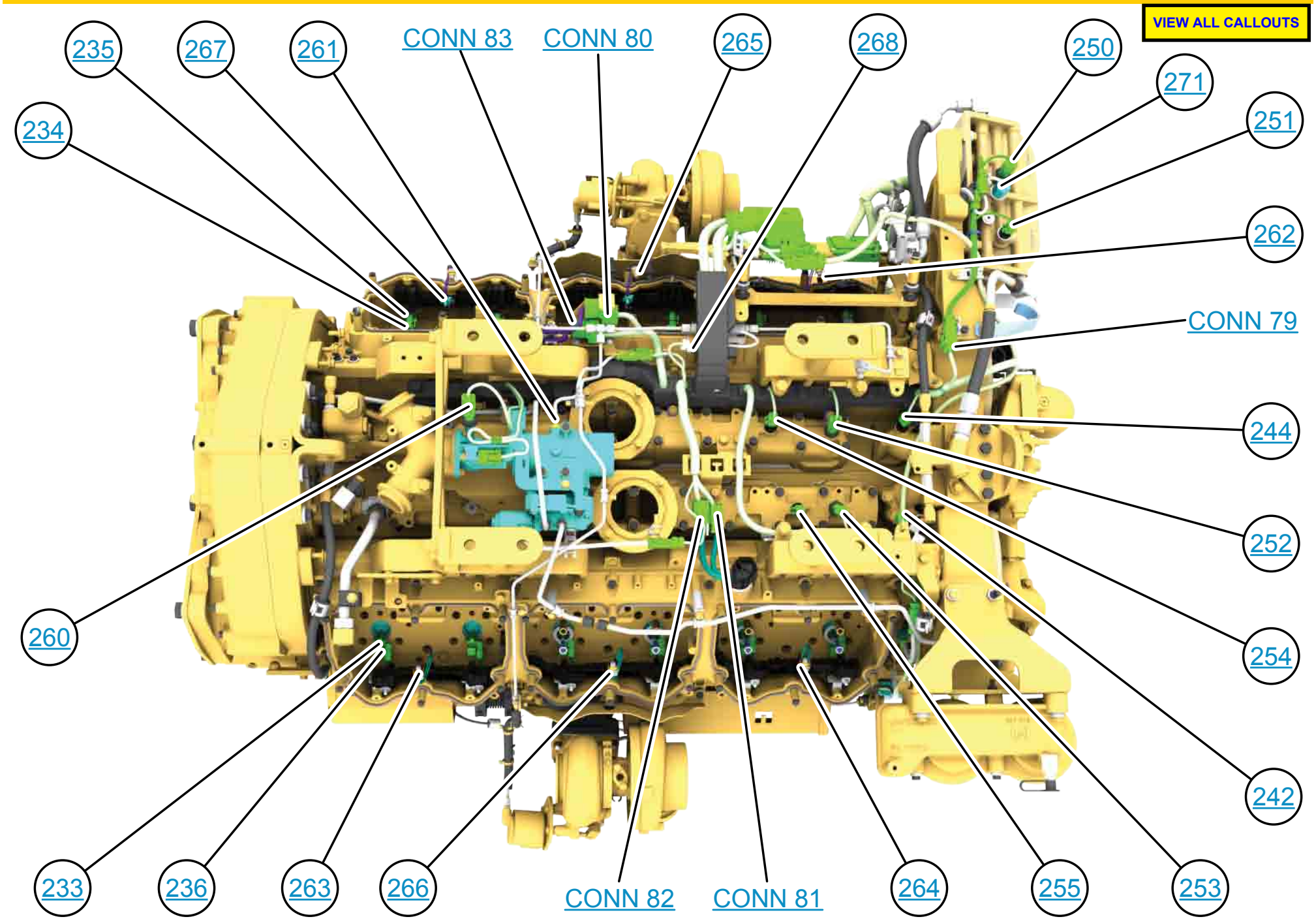


REAR BUMPER VIEW

VIEW ALL CALLOUTS

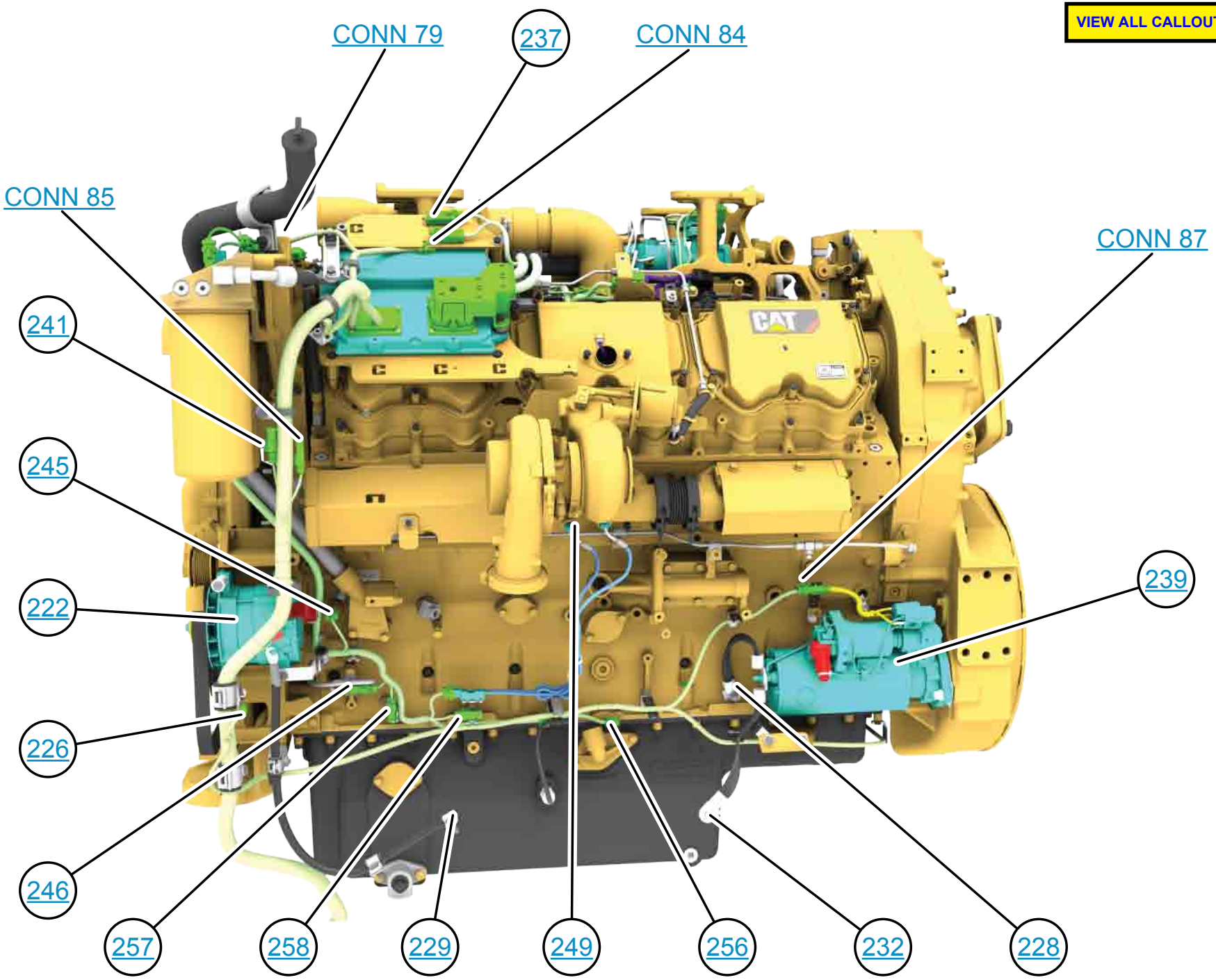


ENGINE TOP VIEW



ENGINE RIGHT SIDE VIEW

VIEW ALL CALLOUTS



ENGINE LEFT SIDE VIEW

VIEW ALL CALLOUTS