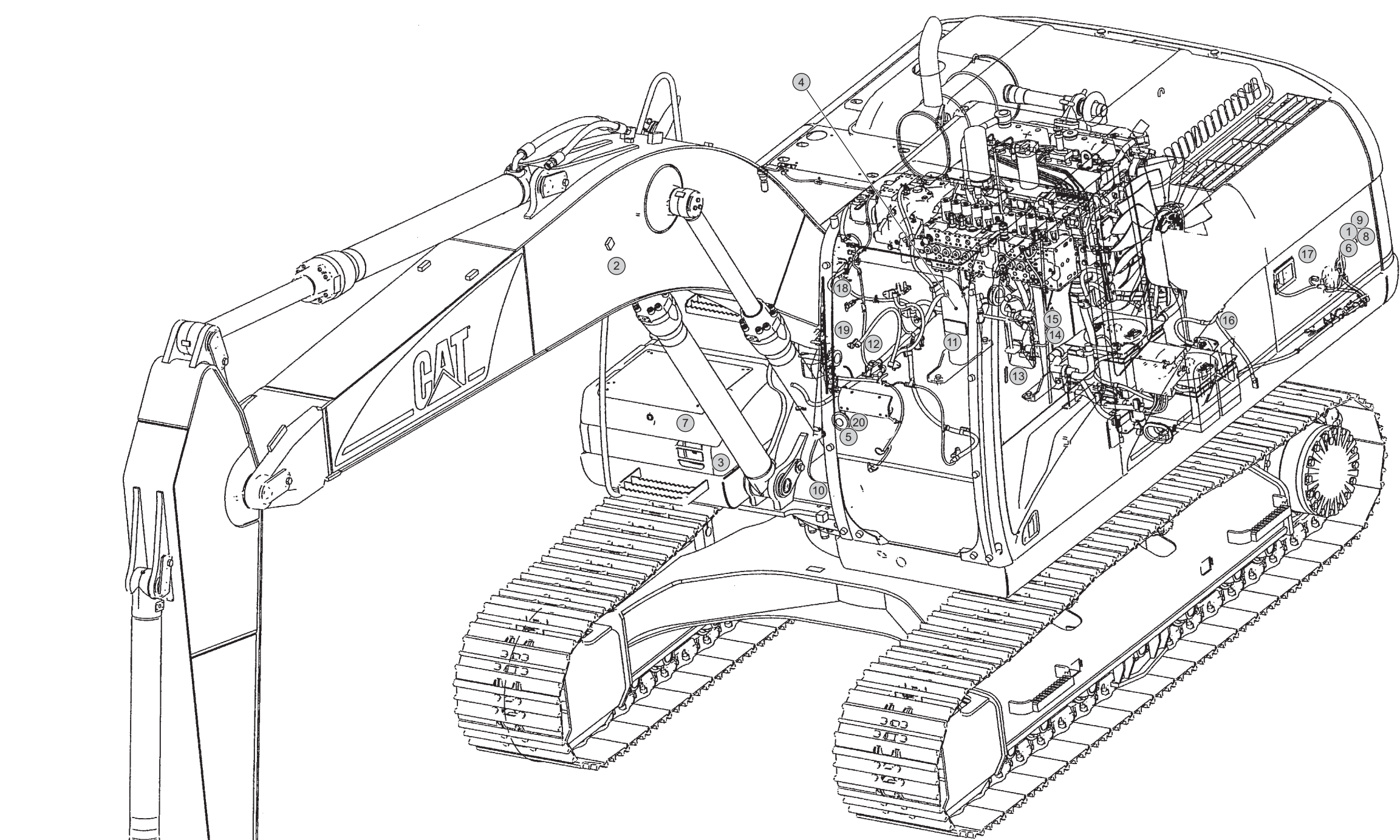
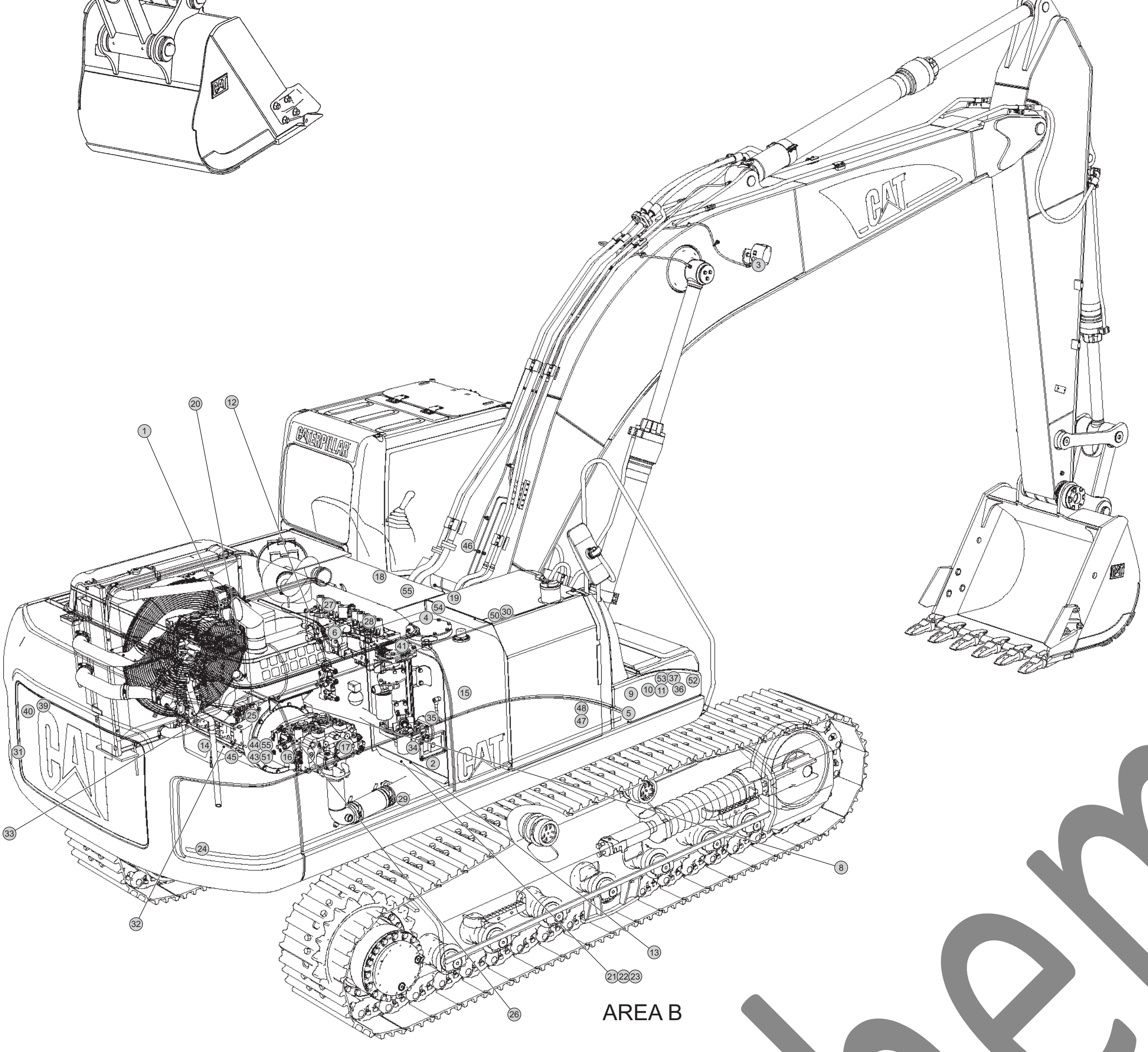


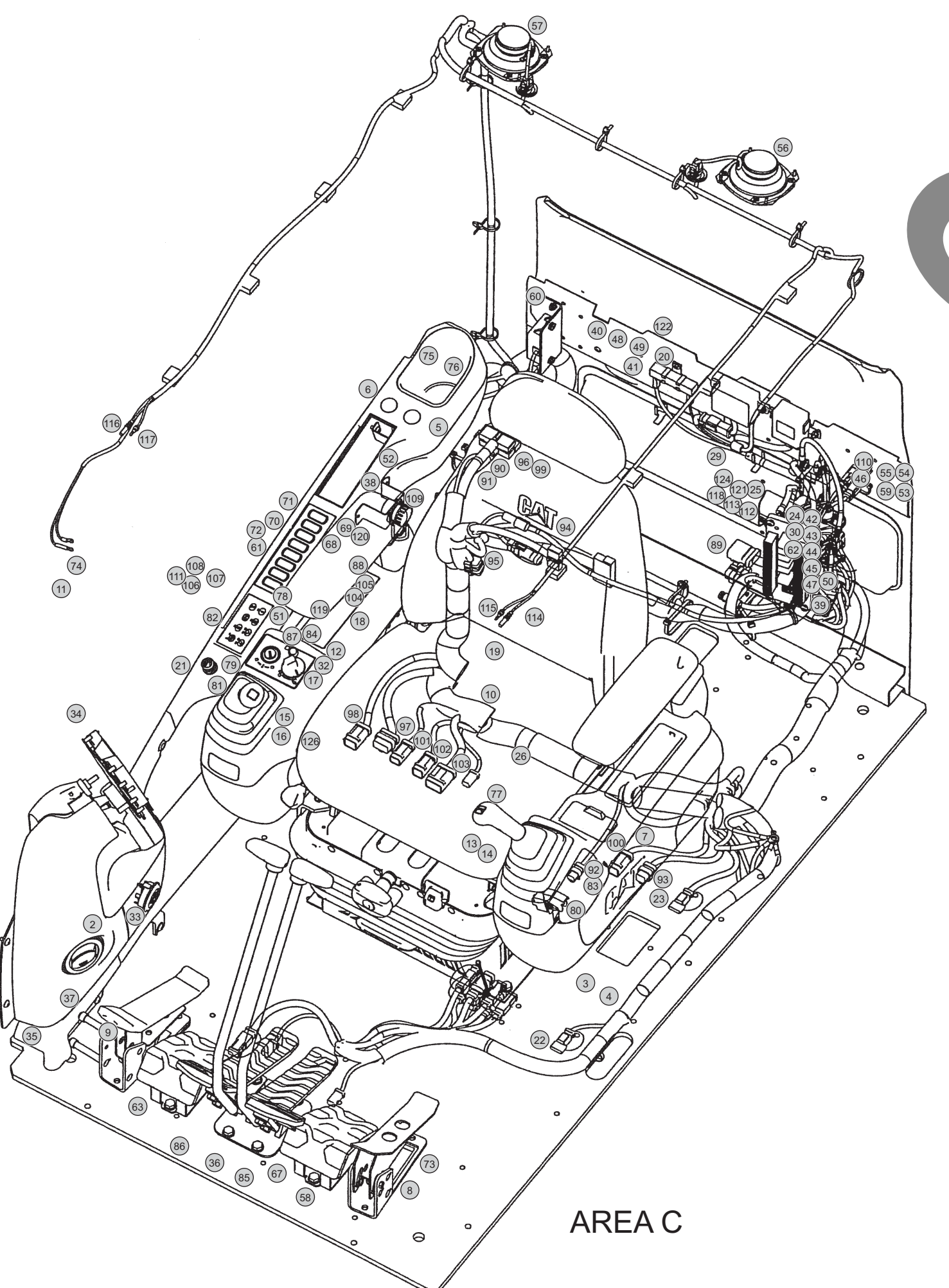
Component Identifiers (CID), Module Identifier (MID), Engine Control System (MID No. 036), Machine Control System (MID No. 039)



AREA A

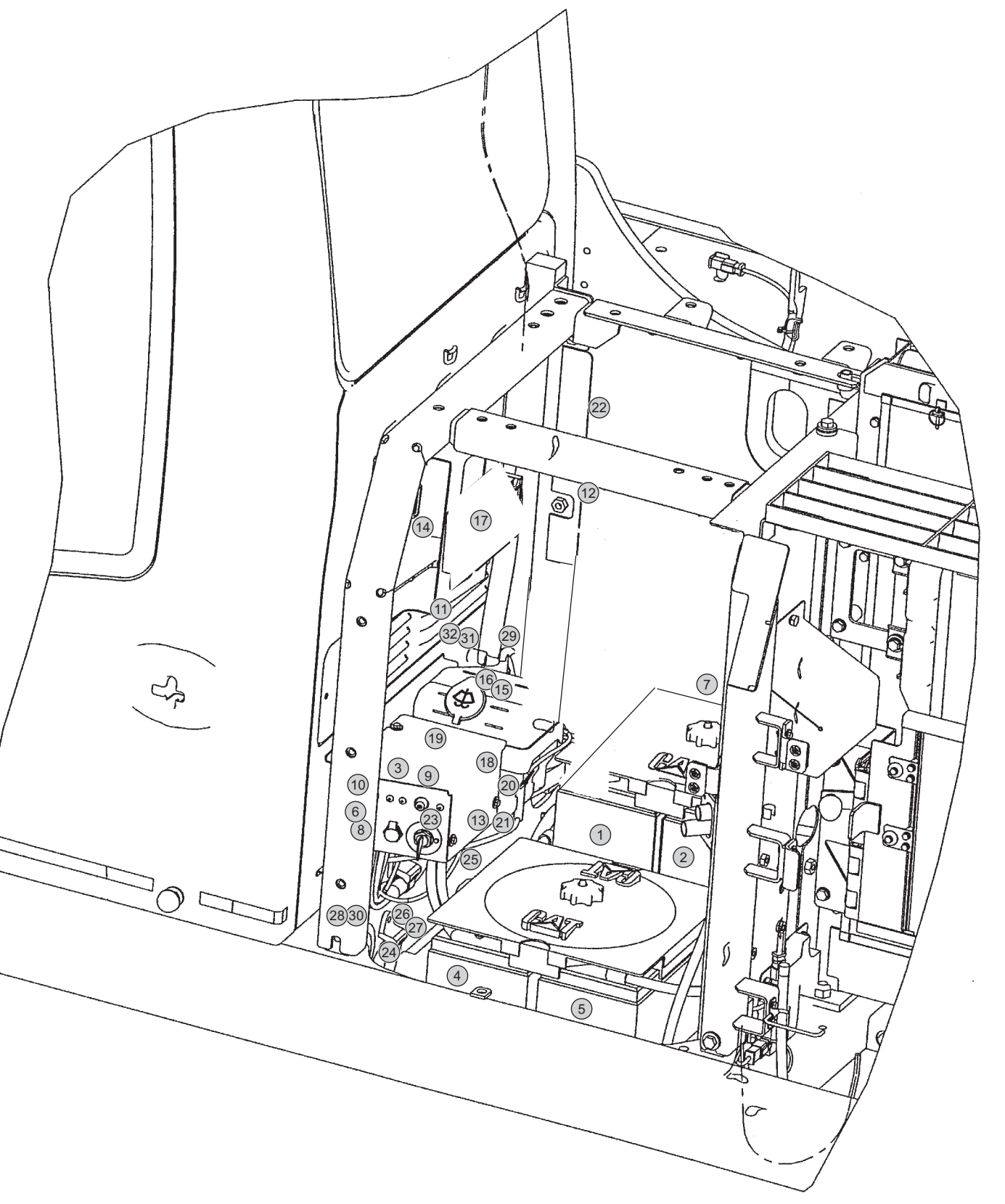


AREA B



AREA C

Connector Location table with columns for Connector Number, Schematic Location, and Machine Location.



AREA D

Failure Mode Identifiers (FMI) table with columns for FMI No., Failure Description, and Failure Mode.

Event Codes table with columns for Event Code, Engine Condition, and Event Description.

Related Electrical Service Manuals table with columns for Title and Form Number.

Component table with columns for Component, Schematic Location, Machine Location, Component, Schematic Location, Machine Location.

Wire Description table with columns for Wire Number, Wire Color, Description, Wire Number, and Description.

Schematic 324D, 325D, 325D MHPU, and 329D Excavator Electrical System

Summary table for 324D, 325D MHPU, and 329D components and their associated electrical systems.

Volume 1 of 2: Chassis and Cab Wiring

Harness and Wire Electrical Schematic Symbols section containing various symbols and their definitions.

Resistor, Sender and Solenoid Specifications table with columns for Part No., Component Description, and Resistance (Ohms).

Off Machine Switch Specification table with columns for Part No., Function, Description, and Contact Position.

Schematic

324D, 325D, 325D MHPU, and 329D Excavator Electrical System

324D: LAB1-UP EJC1-UP T2D1-UP SYM1-UP	325D: GPB1-UP NAC1-UP PKE1-UP LAL1-UP MCL1-UP PAL1-UP GBR1-UP T2S1-UP CYW1-UP	325D MHPU: C3N1-UP	329D: BFC1-UP SCY1-UP
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Volume 2 of 2: Engine Wiring

Harness And Wire Electrical Schematic Symbols

Pressure Symbol

Temperature Symbol

Level Symbol

Flow Symbol

Circuit Breaker Symbol

Symbols and Definitions

- 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:** A magnetic latch solenoid is 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

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.

Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes.

Wire Identification Code: This example indicates wire 135 in harness "AG".

Pin or Socket Number: 9X-1123

Fuse (5 Amps): 5A

Component Part Number: 200-L32 BK-14

Ground Connection: Ground symbol

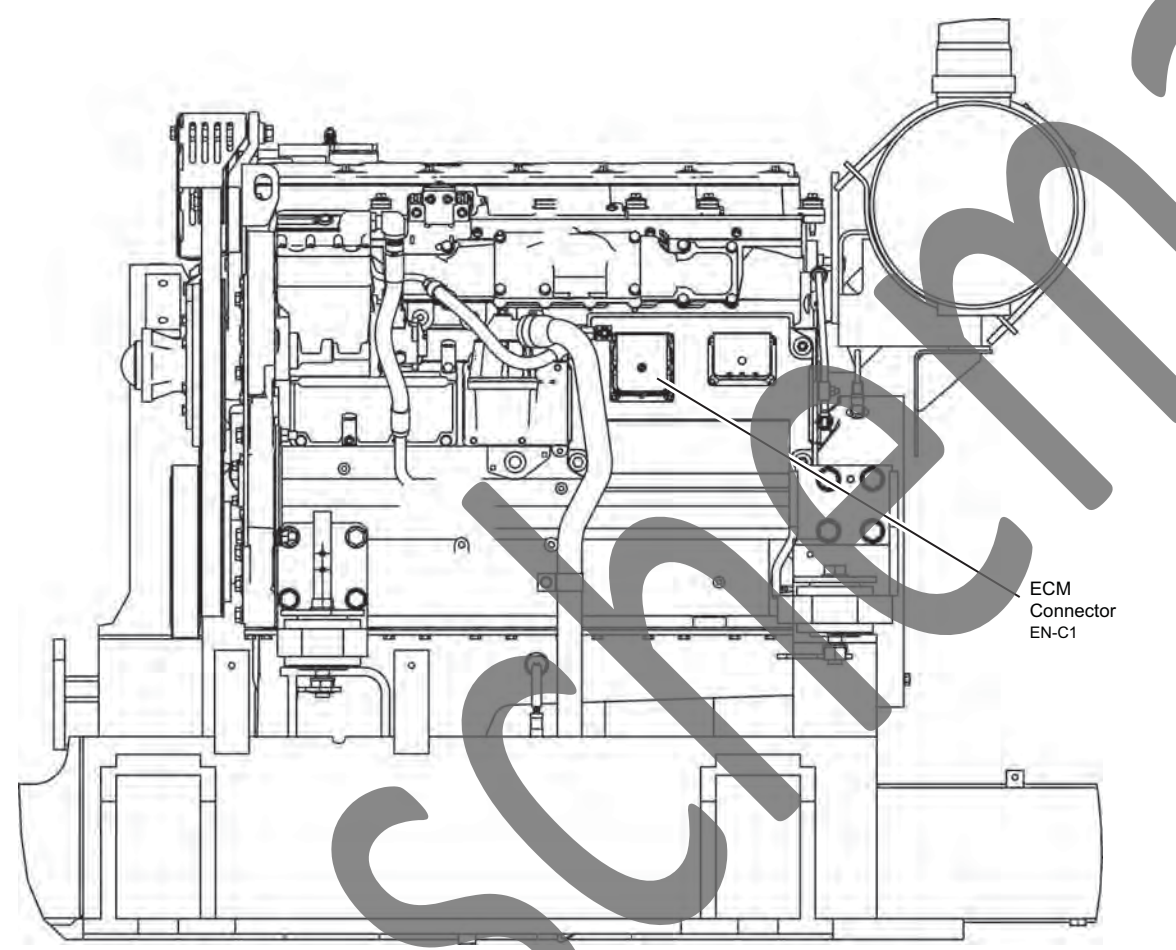
Circuit Identification Number: 111-7898

Wire Color: BK-14

Wire Gauge: 200-L32

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Engine View Harness Connector And Component Locations

Component Identifiers (CID) ¹	
Module Identifier (MID) ²	
Engine Control System (MID No. 036)	
CID	Component
0001	Injector Cylinder #1
0002	Injector Cylinder #2
0003	Injector Cylinder #3
0004	Injector Cylinder #4
0005	Injector Cylinder #5
0006	Injector Cylinder #6
0041	8 Volt DC Supply
0042	Injector Actuation Valve
0091	Throttle Position
0094	Fuel Pressure
0100	Engine Oil Pressure
0110	Engine Coolant Temperature
0164	Injector Actuation Pressure
0168	Electrical System Voltage
0172	Intake Manifold Air Temperature
0174	Fuel Temperature
0190	Engine Speed Sensor
0253	Personality Module
0261	Engine Timing Calibration
0262	5 Volt DC Sensor Power Supply
0268	Check Programmable Parameters
0274	Atmospheric Pressure
0286	EMS Oil Lamp
0342	Secondary Engine Speed
0617	Air Inlet Heater
1639	Machine Security System
1785	Intake Manifold Pressure Sensor
2417	Ether Injection Control Solenoid

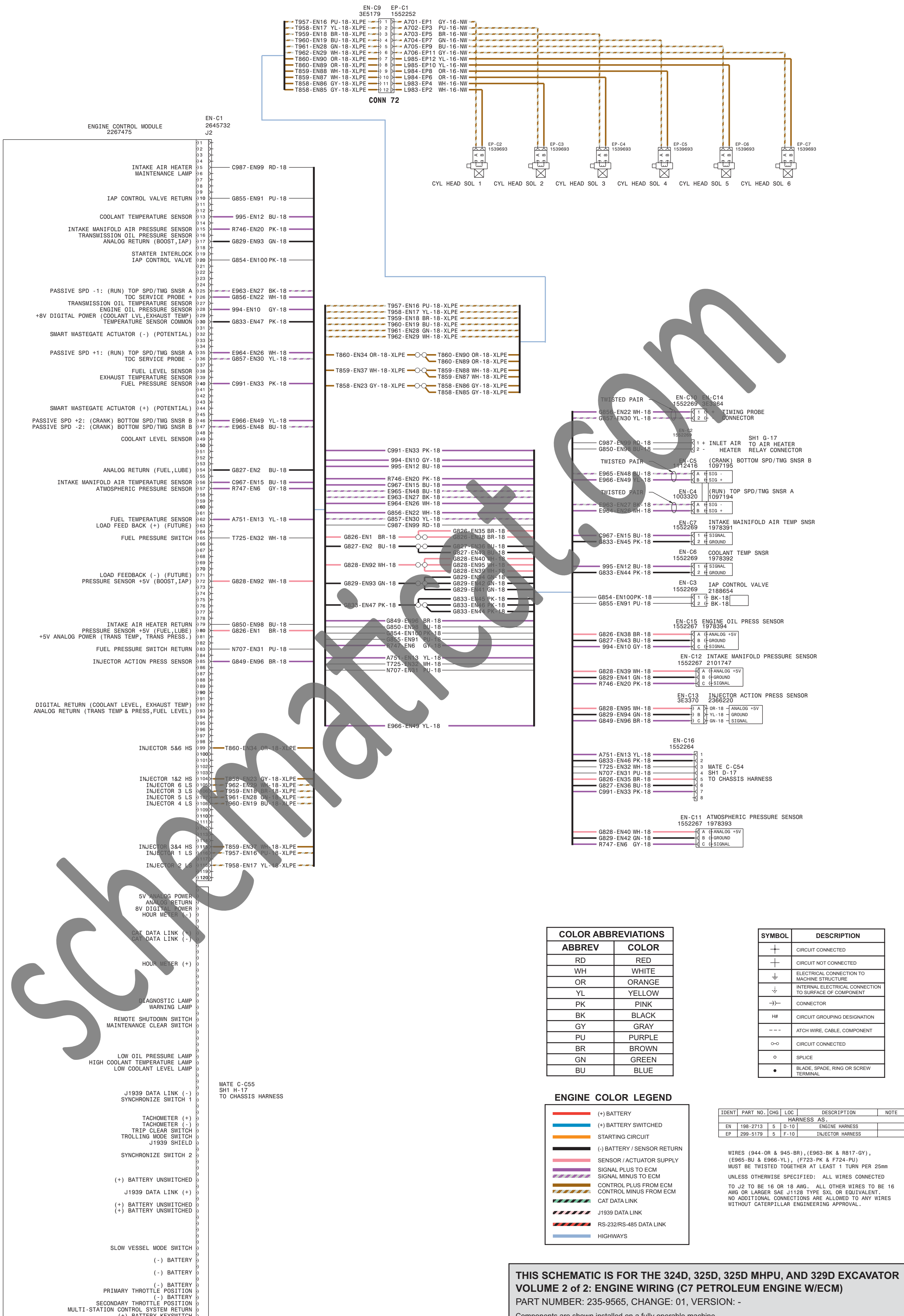
¹ The CID is a diagnostic code that indicates which circuit is faulty.
² The MID is a diagnostic code that indicates which electronic control module diagnosed the fault.

Event Codes Engine Control	
Event Code	Condition
E096	High Fuel Pressure
E162	High Boost Pressure
E198	Low Fuel Pressure
E265	User Defined Shutdown
E360	Low Engine Oil Pressure
E361	High Engine Coolant Temperature
E362	Engine Overspeed
E390	Fuel Filter Restriction
E539	High Intake Manifold Air Temperature

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.

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

Related Electrical Service Manuals	
Title	Form Number
Engine Troubleshooting:	REN5089



THIS SCHEMATIC IS FOR THE 324D, 325D, 325D MHPU, AND 329D EXCAVATOR VOLUME 2 of 2: ENGINE WIRING (C7 PETROLEUM ENGINE WECM)
PART NUMBER: 235-9565, CHANGE: 01, VERSION: -
Components are shown installed on a fully operable machine.
Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.