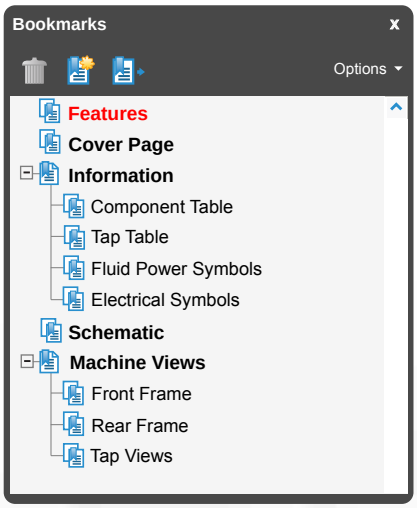
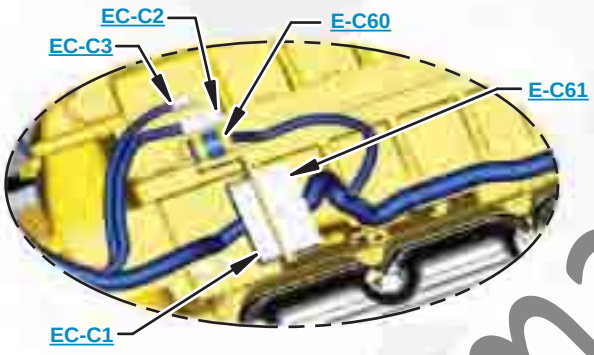
INTERACTIVE SCHEMATIC



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.

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



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

VIEW ALL CALLOUTS

When only one callout is showing on a machine view 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”**

UENR1383-01
August 2013

Schematic

D8R Track-Type Tractor
Electrical System

9EM7400-UP
T5X1-UP

Printed in U.S.A.

COMPONENT LOCATION

Component	Schematic Location	Machine Location
Alarm - Action	F-9	1
Alarm - Backup	F-10	2
Alternator	G-4	3
Battery (4)	J-10	4
Block - Fuse	I-9	5
Block - Junction	I-6	6
Control - Product Link	I-14	7
Converter - 5A	I-11	8
Fan	D-5	9
Fuse - Blower (20A)	I-9	10
Ground - Chassis	F-4	11
Ground - Engine	J-5	12
Ground - Frame #1	J-9	13
Ground - Frame #2	I-6	14
Ground - Frame #3	J-5	15
Ground - Headliner	C-3	16
Ground - Platform #1	G-7	17
Ground - Platform #2	G-7	18
Ground - Platform #3	G-7	19
Horn - Forward (High)	I-2	20
Horn - Forward (Low)	I-2	21
Motor - Blower #1	F-1	22
Motor - Blower #2	F-1	23
Motor - Condensor #1	C-12	24
Motor - Condensor #2	C-12	25
Motor - Prelube Pump	I-6	26
Motor - Starter	J-5	27
Motor - Washer Pump (Front)	E-1	28
Motor - Washer Pump (Left)	E-1	29
Motor - Washer Pump (Rear)	E-1	30
Motor - Washer Pump (Right)	D-1	31
Motor - Wiper (Front)	C-2	32
Motor - Wiper (Left)	D-2	33
Motor - Wiper (Rear)	E-3	34
Motor - Wiper (Right)	D-2	35
Outlet - 12V	A-7	36
Radio - Product Link	H-11	37
Relay - Condensor	C-11	38
Relay - Cylinder Floods	E-7	39
Relay - Main	I-11	40
Relay - Prelube	J-7	41
Relay - Start	I-11	42
Resistor - Blower	F-1	43
Sender - Fuel Level	E-12	44
Sender - Hydraulic Temperature	B-9	45
Sender - Powertrain Oil Temperature	A-4	46
Sensor - Coolant Temperature	G-4	47
Solenoid - A/C Clutch	H-4	48
Solenoid - Diverter Valve	E-12	49
Solenoid - Dual Tilt	A-2	50
Solenoid - Ripper Pin	F-13	51
Solenoid - Start Aid	H-4	52
Suppressor - Arc #1	B-2	N/A
Suppressor - Arc #2	A-2	N/A
Suppressor - HVAC Arc	H-4	55
Suppressor - Ripper Pin Puller Arc (A)	F-13	56
Suppressor - Ripper Pin Puller Arc (B)	F-13	57
Switch - A/C Pressure	G-4	58
Switch - Backup Alarm	G-11	59
Switch - Blower	F-1	60
Switch - Coolant Temperature	I-4	61
Switch - Disconnect	J-9	62
Switch - Diverter Valve	B-7	63
Switch - Engine Coolant Temperature	I-4	64
Switch - Engine Oil Pressure	I-4	65
Switch - Front Flood	C-7	66
Switch - Fuel Pressure	J-4	67
Switch - Horn (Forward)	B-7	68
Switch - Hydraulic Oil Filter Pressure	A-8	69
Switch - Hydraulic Oil Filter Temperature	A-8	70
Switch - Hydraulic Oil Temperature	B-9	71
Switch - Key	C-5	72
Switch - Neutral Start	G-11	73
Switch - Operator Mode	C-5	74
Switch - Powertrain Filter Pressure	A-8	75
Switch - Powertrain Oil	A-4	76
Switch - Powertrain Oil Temperature	A-8	77
Switch - Prelube Oil Pressure	J-6	78
Switch - Rear Flood	C-5	79
Switch - Ripper Pin Puller	B-7	80
Switch - Start Aid	C-7	81
Switch - Thermostat	E-1	82
Switch - Wiper (Front)	C-4	83
Switch - Wiper (Left)	C-4	84
Switch - Wiper (Rear)	E-4	85
Switch - Wiper (RIght)	D-4	86
Throttle - Dual Tilt Switch	B-7	87
Timer - Prelube	J-6	88

CONNECTOR LOCATION

Connector Number	Schematic Location
CONN 1	D-12, C-13
CONN 2	E-12, D-13, C-13
CONN 3	F-12
CONN 4	H-10, H-12
CONN 5	H-10, H-12
CONN 6 Service Connector	H-12
CONN 7	A-10
CONN 8	C-10
CONN 9	C-10
CONN 10	E-10
CONN 11	G-10
CONN 12 RS232 Port	G-10
CONN 13	H-11
CONN 14	H-11
CONN 15 Auxiliary Connectors	A-7
CONN 16	A-7
CONN 17	B-7
CONN 18	D-7
CONN 19	G-6
CONN 20	H-6
CONN 21	H-7
CONN 22	J-8
CONN 23	A-6
CONN 24	E-5
CONN 25	E-5
CONN 26	A-4
CONN 27	C-2
CONN 28	D-3
CONN 29	D-3
CONN 30	E-2
CONN 31	F-4
CONN 32	H-2
CONN 33	H-2
CONN 34	H-4

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.

SPECIFICATIONS AND RELATED MANUALS

Resistor, Sender, and Solenoid Specifications			
Part No.	**Component Description**		**Resistance (Ohms)[1]**
9G-1950	Resistor:	Blower Motor Speed	Overall 2.0 ± .1; Tap 1.0 ± .05
3E-9205	Solenoid:	Dual Tilt	24.9 ± 0.4
3E-1906	Solenoid:	A/C Clutch	17.6 ± 0.6
3E-8575	Solenoid:	Ripper Pin Puller	24.9 ± 0.4
8N-3844	Sender:	Power Train Oil Temperature	312
3E-6332	Solenoid:	Start Aid	6

[1] At room temperature unless otherwise noted.

Related Electrical Service Manuals	
Title	**Form Number**
Cross Reference for Electrical Connectors:	REHS0970
Alternator: 3E-7577	RENR1252
Starting Motor: 4N-1061	SENR3460

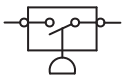
Off-Machine Switch Specification				
Part No.	**Function**	**Actuate**	**Deactuate**	**Contact Position**
3T-5825	Power Train Oil Temperature	129.4 ± 2.8°C (265.0 ± 5.0°F)	118.3°C (245.0°F)	Normally Closed
174-4058	Engine Oil Pressure	79 kPa MAX (11 psi)	24 kPa MIN (3.5 psi)	Normally Open
203-3222	Engine Coolant Temperature	107 ± 3°C (224.0 ± 41.0°F)	90.0°C MIN (194.0°F MIN)	Normally Closed
105-9152	Prelube Oil Pressure	30 ± 7 kPa (4.3± 1.0 psi)	30 ± 7 kPa (4.3± 1.0 psi)	Normally Closed
355-3148	A/C Pressure	275 to 1750 kPa[1] (40 to 255 psi)	–	Normally Open [2]

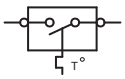
[1] With increasing pressure the closed condition can be maintained up to 2800 kPa (405 psi), with decreasing pressure the closed condition can be maintained down to 170 kPa (25 psi).

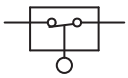
[2] Contact position at the contacts of the harness connector.

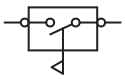
HARNESS and WIRE
Electrical Schematic Symbols

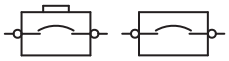
Symbols


Pressure Symbol


Temperature Symbol

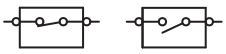

Level Symbol

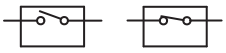

Flow Symbol

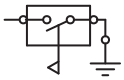

Circuit Breaker Symbol

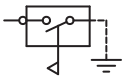
Symbols and Definitions

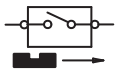

Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.

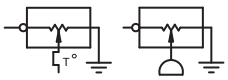

Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.

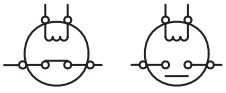

Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.

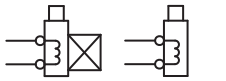

Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.

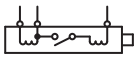

Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.


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.

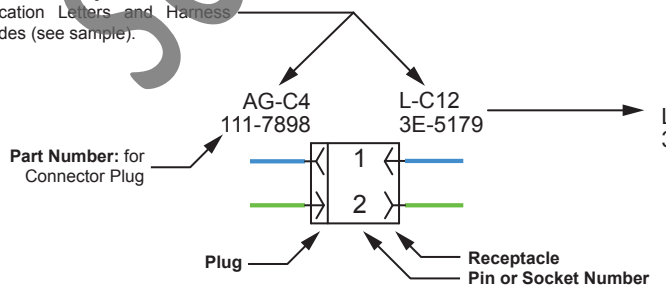

Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.

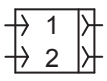

Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.


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.

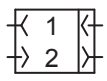
Harness and Wire Symbols

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

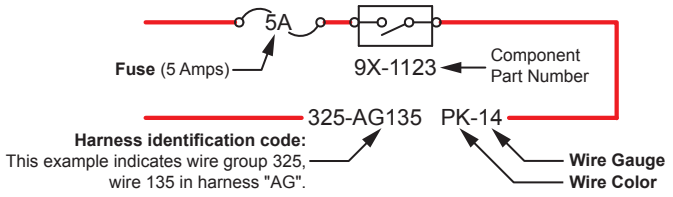


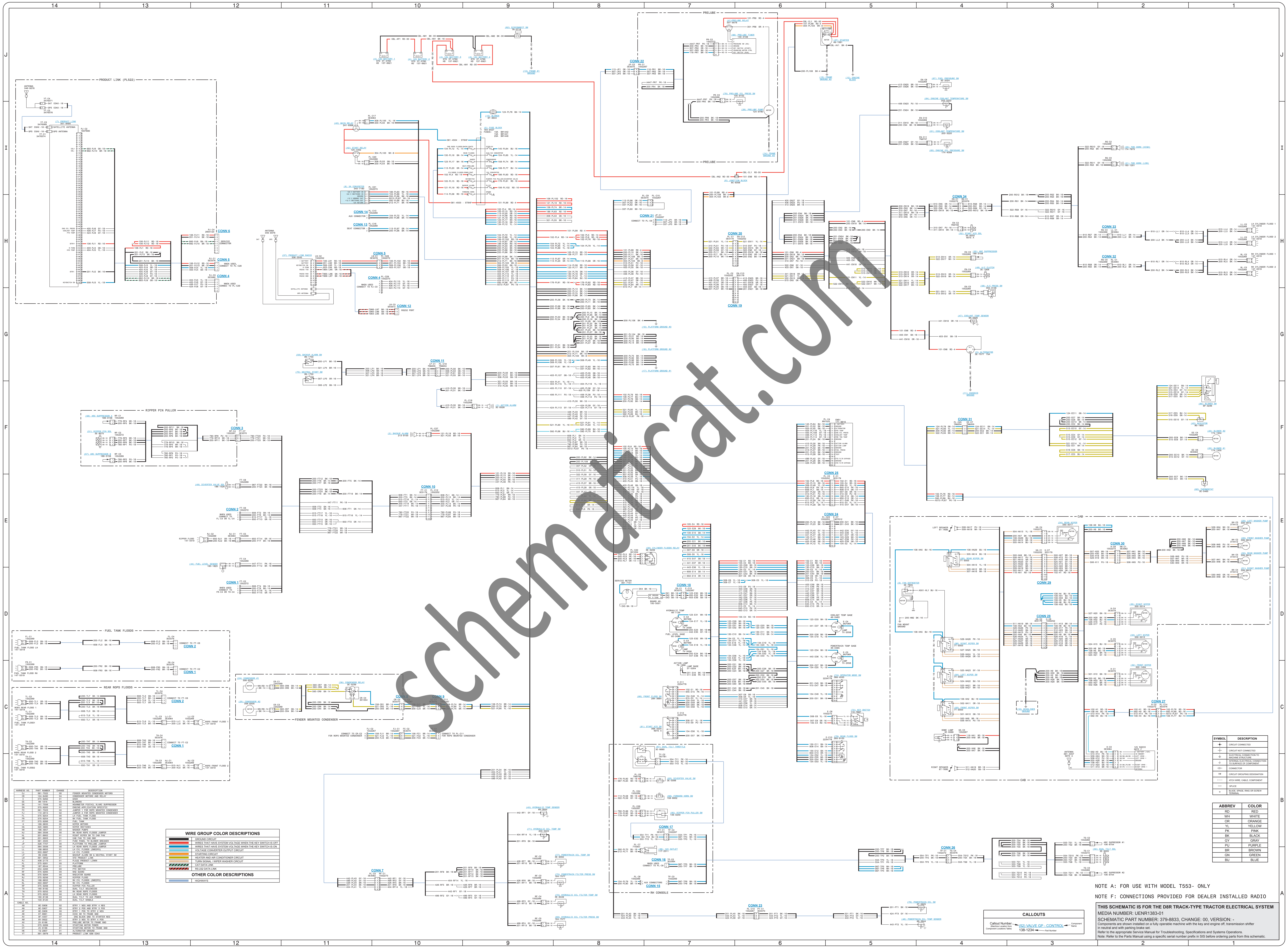


Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.



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





WIRE GROUP COLOR DESCRIPTIONS

(black)	GROUND CIRCUIT
(red)	WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
(blue)	WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON
(light blue)	VOLTAGE CONVERTER OUTPUT CIRCUIT
(orange)	STARTING CIRCUIT
(yellow)	HEATER AND AIR CONDITIONER CIRCUIT
(tan)	TURN SIGNAL / WIPER WASHER CIRCUIT
(striped green/black)	CAT DATA LINK
(striped red/black)	RS-232 DATA LINK

OTHER COLOR DESCRIPTIONS

(grey-blue)	HIGHWAYS

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

NOTE A: FOR USE WITH MODEL T553- ONLY

NOTE F: CONNECTIONS PROVIDED FOR DEALER INSTALLED RADIO

CALLOUTS

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

THIS SCHEMATIC IS FOR THE D8R TRACK-TYPE TRACTOR ELECTRICAL SYSTEM

MEDIA NUMBER: UENR1383-01

SCHEMATIC PART NUMBER: 379-8833, CHANGE: 00, VERSION: -

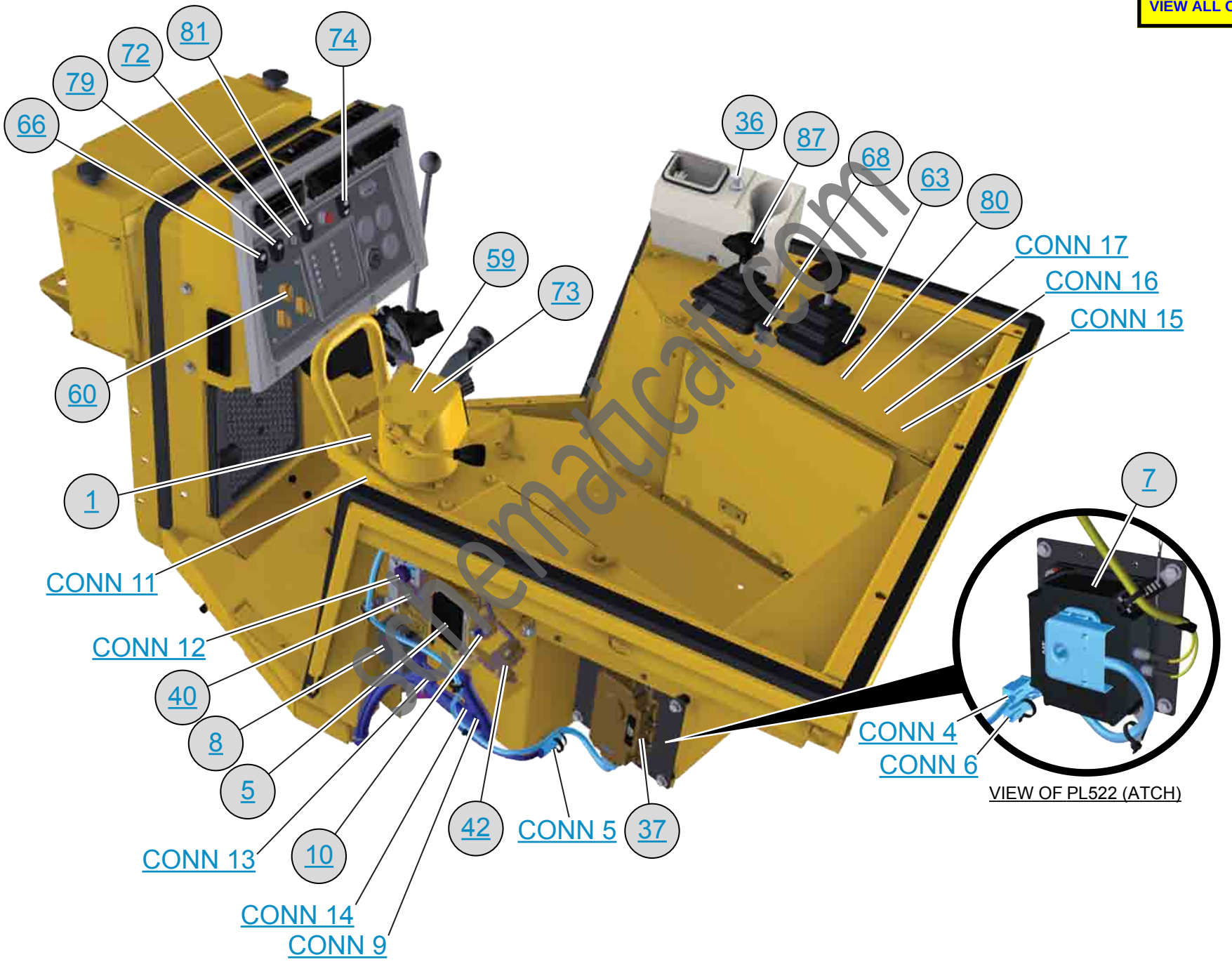
Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.

Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

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

CAB WIRING (LEFT, REAR VIEW)

VIEW ALL CALLOUTS



CONDENSER WIRING

VIEW ALL CALLOUTS

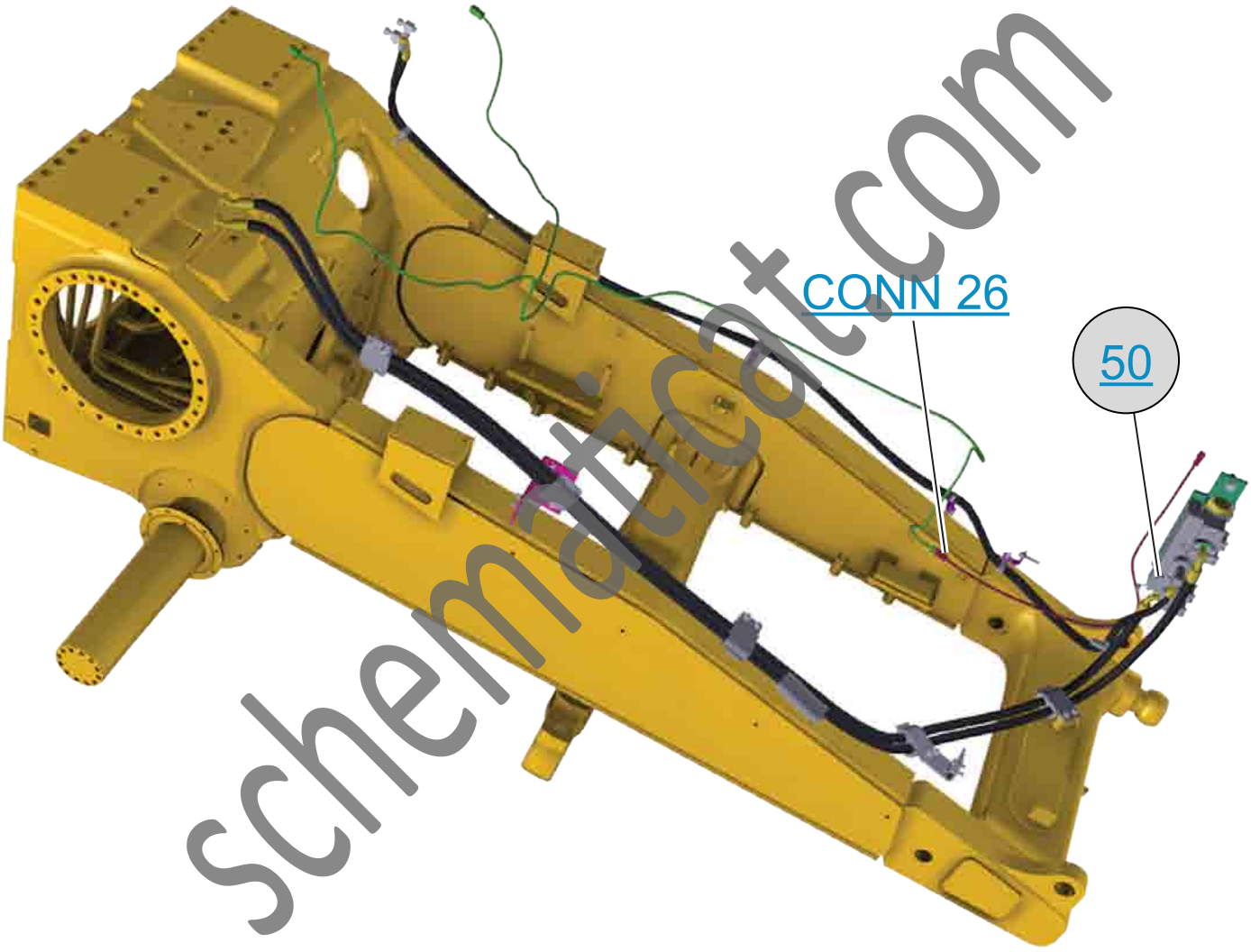
DASH WIRING (FRONT VIEW)

VIEW ALL CALLOUTS

* HVAC REMOVED FOR CLARITY

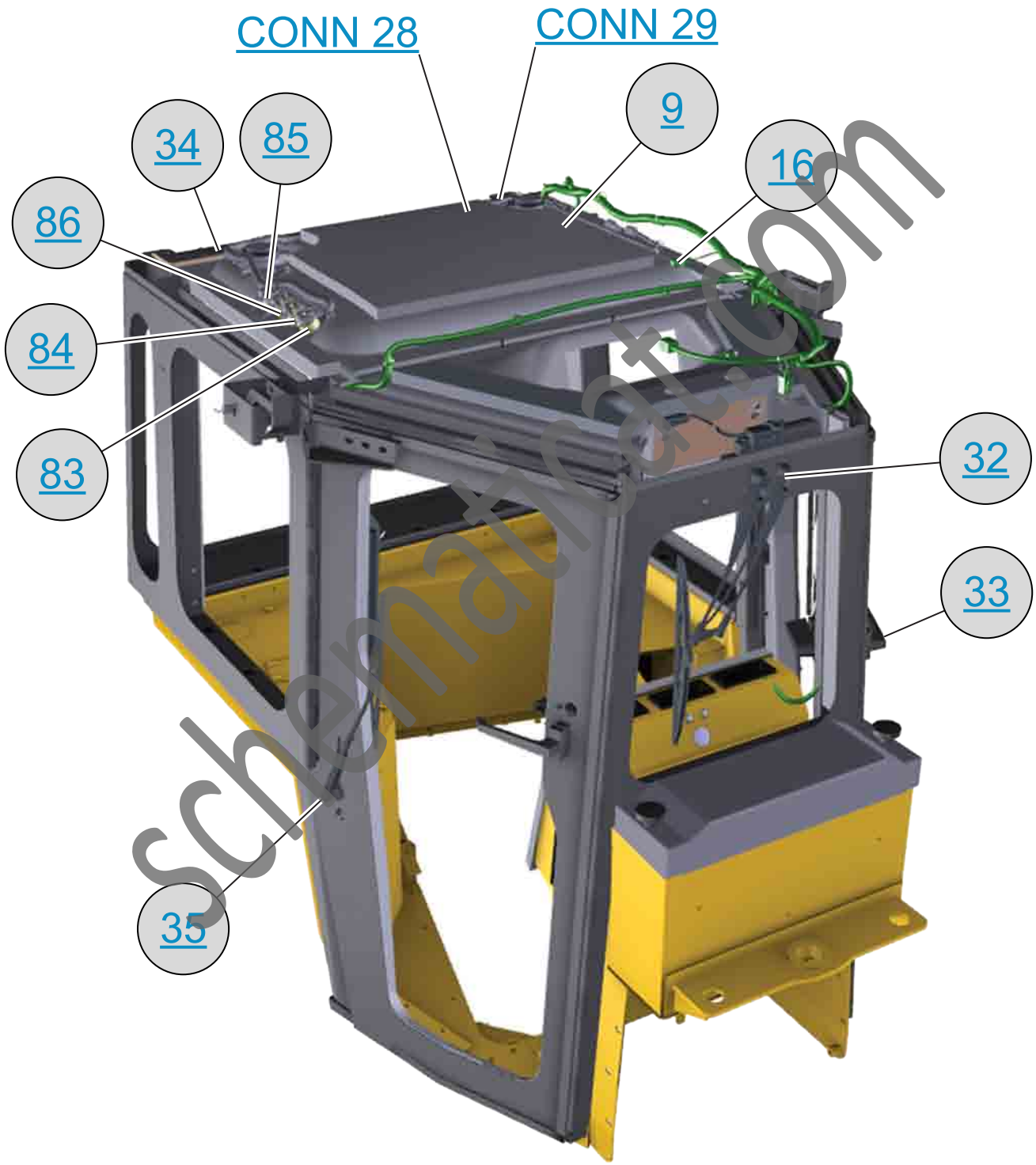
DUAL TILT WIRING

VIEW ALL CALLOUTS



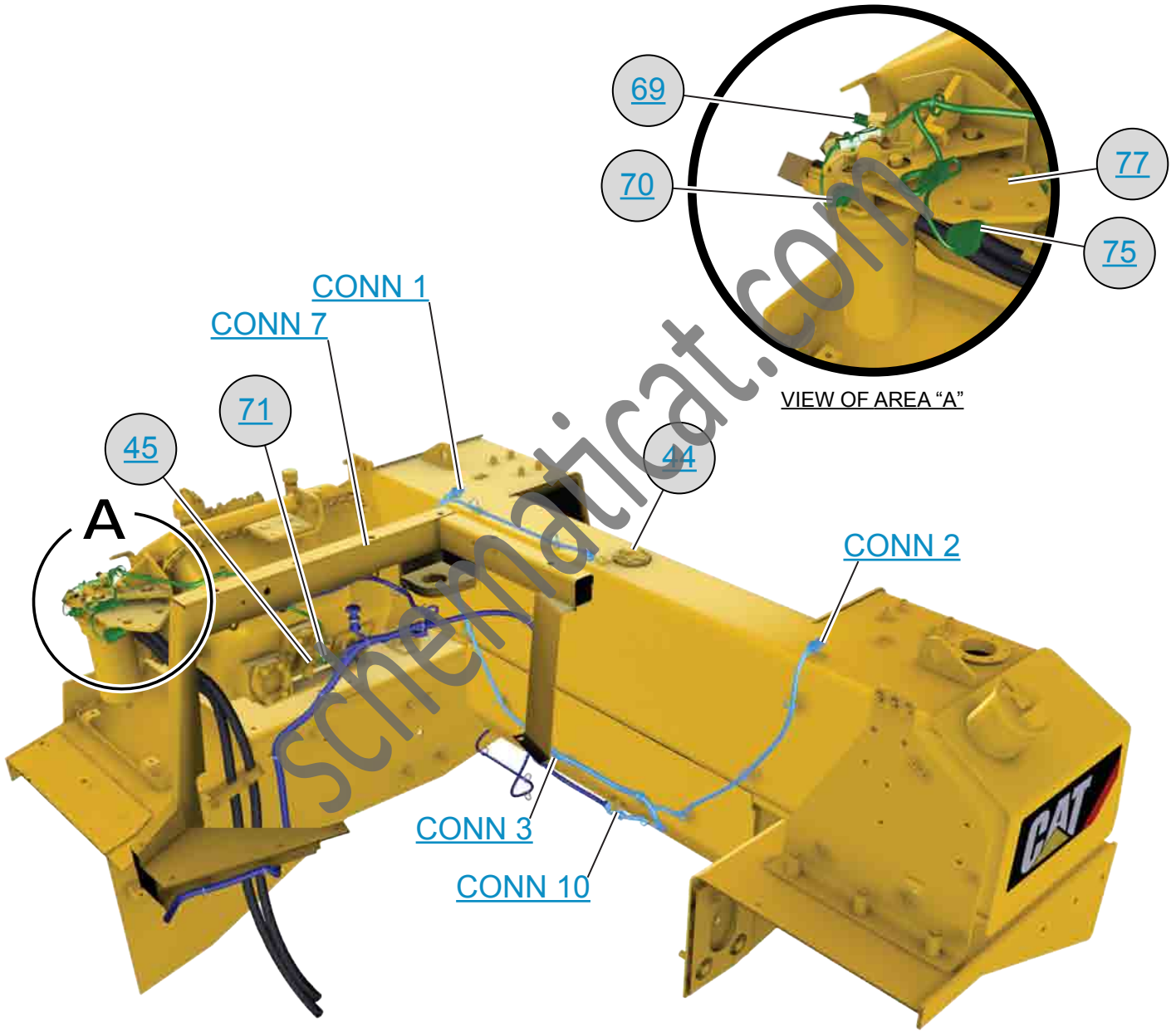
HEADLINER WIRING

VIEW ALL CALLOUTS



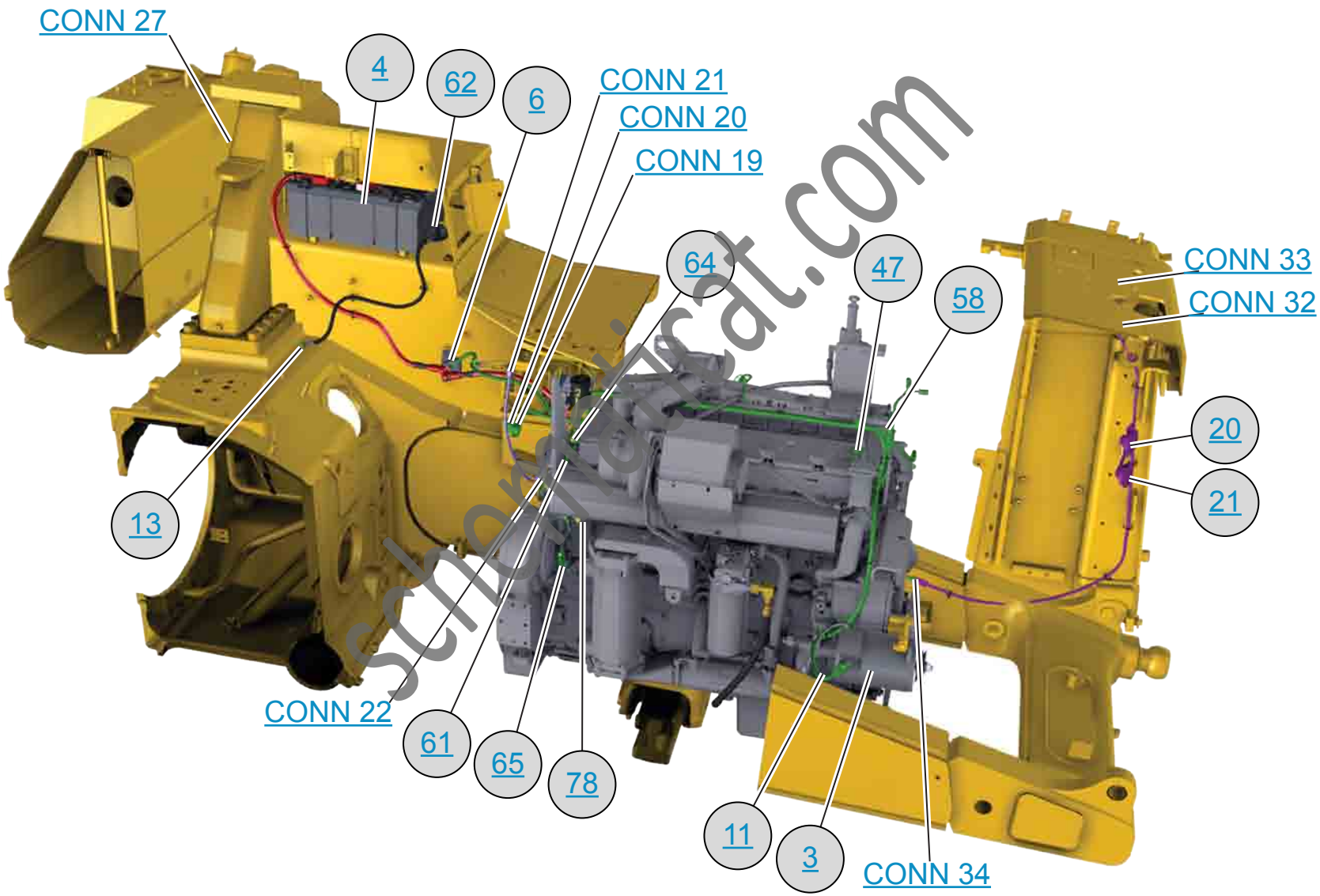
HYDRAULIC AND FUEL TANK WIRING

VIEW ALL CALLOUTS



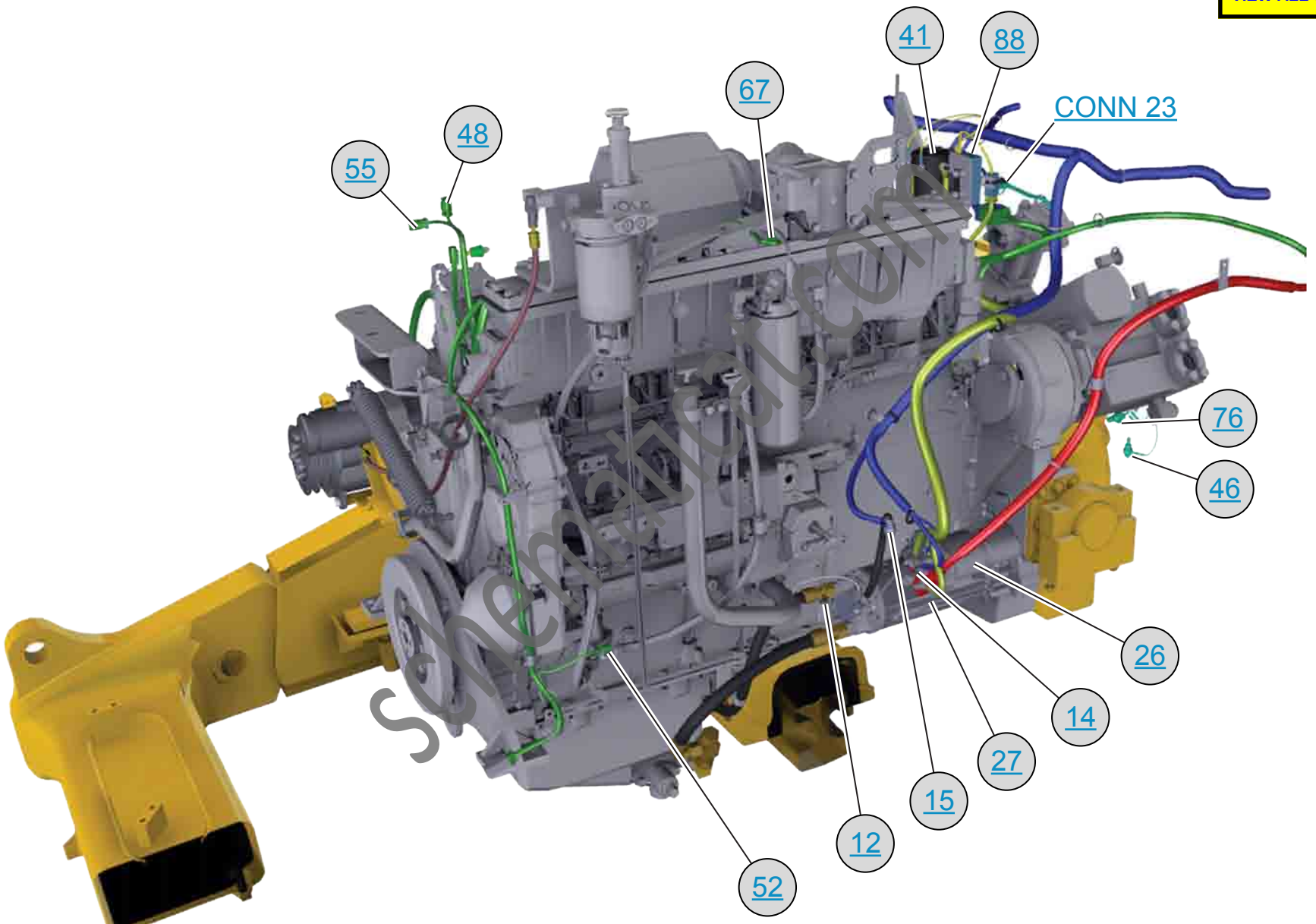
LEFT CHASSIS AND ENGINE WIRING

VIEW ALL CALLOUTS



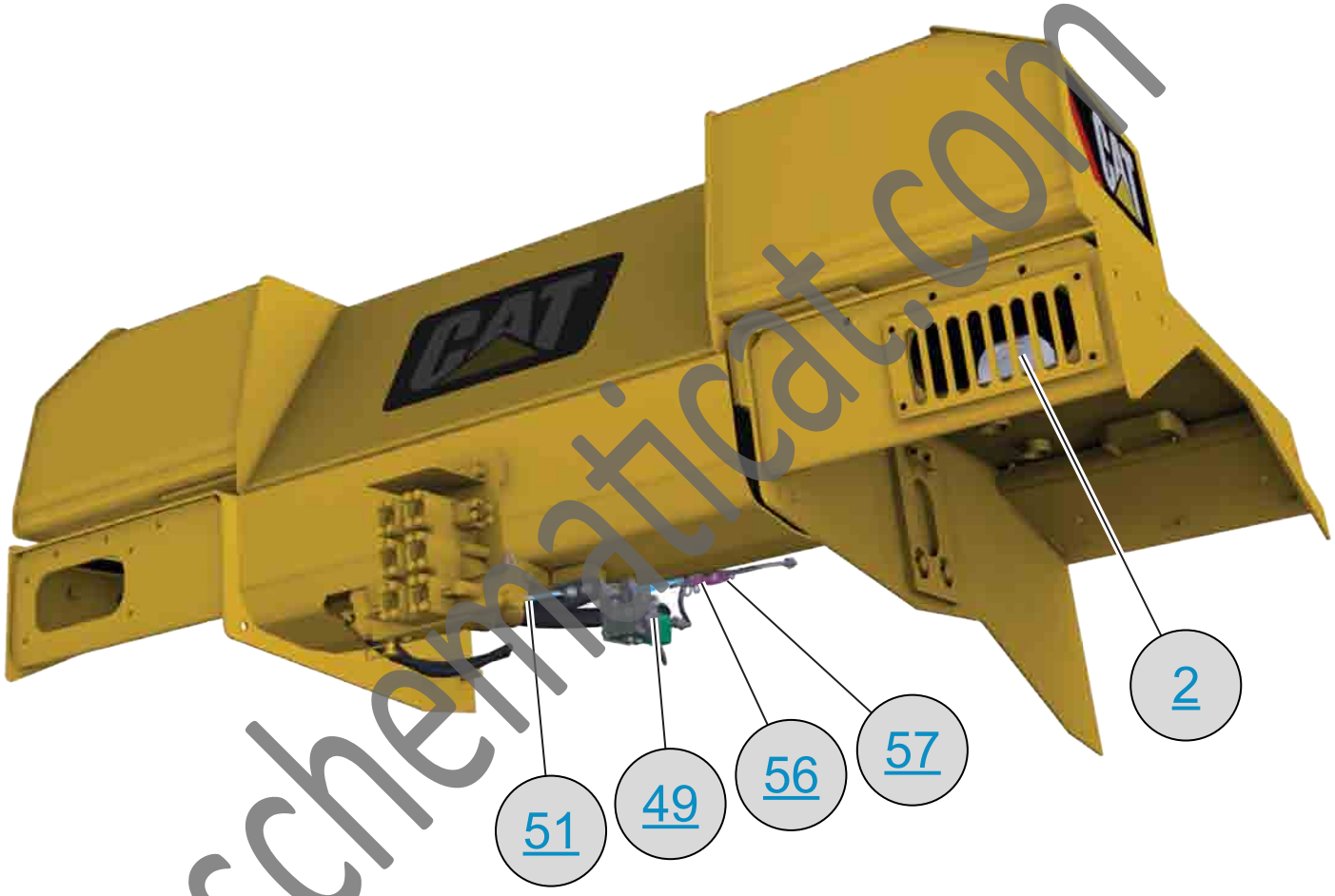
RIGHT CHASSIS AND ENGINE WIRING

VIEW ALL CALLOUTS



RIPPER PIN WIRING

VIEW ALL CALLOUTS



WASHER TANK WIRING

VIEW ALL CALLOUTS