

Wire Description			Wire Description		
Wire Number	Wire Color	Description	Wire Number	Wire Color	Description
<b>Power Distribution Circuits</b>					
101	RD	Bat (+)	521	YL	A/C SW To Refrigerant SW
102	RD	Running Lamps	522	WH	A/C Clutch To Thermostat SW
105	RD	Key Sw	537	GN	Turn Signal SW To Flasher
107	RD	Eng Shut - Down	538	BR	Hazard Indicator
108	BU	Seat	539	BU	Right Turn Indicator Lamp
109	RD	Air Output (+)	540	WH	Left Turn Indicator Lamp
112	PU	Main Power Fly Output	541	PK	DODC Converter Memory Output
113	OR	Cat Mon Sys *24V Switched	A523	PU	Temp Potentiometer Pos 1
114	RD	Warning Horn (Forward)	A524	BR	Temp Potentiometer Pos 2
116	BR	Front Flood	A525	GN	Temp Potentiometer Pos 3
118	GY	Front Wiper B+	A526	PK	Electronic Water Valve Actuator
120	YL	Voltage Converter Switched In	A527	BU	Electronic Water Valve Actuator
122	RD	Tail / Dome Lamps	A541	PU	Turn Indicator
124	GN	Blower Motors	A552	BU	Blend Door Motor (A)
127	OR	Rear Floods	A553	OR	Blend Door Motor (B)
129	BU	Cigar Lighter	A594	WH	Blend Door Position Feedback (+)
130	RD	Stop Lamps	A595	GN	Blend Door Position Feedback (Signal)
135	BU	Voltage Converter Switched Out	A596	YL	Blend Door Position Feedback (-)
138	GN	Auto Lube Pump To Payload Monitor	C529	GY	Lift Press Sensor
141	RD	Spare Fuse	C530	BU	Lift Position Sensor
144	GN	Beacon	<b>Lighting Circuits</b>		
146	GY	Implements	603	PK	Rotary Beacon
158	BR	Spare	604	OR	Stop Lamp
164	WH	Hydro Cntl WTL Powertrain Cntl	605	YL	Turn Lamp - Left
165	RD	Head Actuator	606	GY	Turn Lamp - Right
177	RD	Main Bkr	608	GN	Flood Lamp - Rear
188	WH	WLPCS Keypad	610	OR	Head Lamp Basic
189	RD	Spare Fuse	611	PU	Head Lamp Hi
199	RD	Spare Fuse	612	GY	Backup Lamp
<b>Ground Circuits</b>					
200	BK	Machine Ground	614	PU	Park/Tail/Dash/Lamp
201	BK	Operator Monitor Return	615	YL	Cab Flood Lamp/Rops
202	BK	XMSN Cntl	617	BR	Tail/Position Lamp - Left (Road Pkg/Width)
203	BK	Chassis Diagnostic	619	GN	Head Lamp Lo
207	BK	Starter Diagnostic	633	BU	Bucket Turn Indicator Lamp
250	BK	Payload Mon - Customer Gnd	661	GN	Tachometer Lamp - Cat Mon Sys
251	BK	Payload Mon - System Gnd	662	YL	Speedometer Lamp - Cat Mon Sys
270	BK	Cat Mon Sys Ident Code 0	663	GY	Page Lamp - Cat Mon Sys
271	BK	Cat Mon Sys Ident Code 1	691	GY	+ V Turn Signal
272	BK	Cat Mon Sys Ident Code 2	692	YL	+ V Turn Signal
273	BK	Cat Mon Sys Ident Code 3	<b>Control Circuits</b>		
274	BK	Cat Mon Sys Ident Code 4	710	GN	XMSN Speed Pickup Signal
275	BK	Cat Mon Sys Ident Code 5	720	PU	XMSN Brake SW
276	BK	XMSN Cntl Ident Code 0	751	GN	XMSN Shift Sol No. 1 Or 3
277	BK	XMSN Cntl Ident Code 1	752	YL	XMSN Shift Sol No. 2
278	BK	XMSN Cntl Ident Code 2	754	BU	XMSN Shift Sol No. 3 Or 1
279	BK	XMSN Cntl Ident Code 3	755	OR	XMSN Shift Sol No. 4 Or 5
280	BK	Cat Mon Sys Service	762	YL	Bucket Positioner Sol SW
291	BK	Cat Mon Sys Clear	E701	PK	Auto Ride Cntl SW
299	BK	WTL Impl Cntl Gnd	E702	OR	Auto Ride Cntl SW
A201	BK	WTL Impl Cntl Serv Mode Sw To Gnd	E707	GN	Display +V
A202	BK	WTL Impl Cntl Clear Fault Sw To Gnd	E708	PK	Display Clock
A203	BK	WTL Impl Cntl ID CODE 1	E708	PU	Cat Mon Sys Tack/Serv Mtr/Odometer Select
A204	BK	WTL Impl Cntl ID CODE 4	G748	WH	L.H. Pedal Position Sensor
A205	BK	WTL Impl Cntl ID CODE 6	G750	BU	XMSN Cont Fwd SW To Gnd
A207	BK	MAC-14 Impl Cntl B+	G755	GY	XMSN Cont Rev SW To Gnd
A273	BK	MAC-14 Thrst Cntl B+	G760	WH	XMSN Cont Speed 2 SW To Gnd
<b>Basic Machine Circuits</b>					
301	BU	Starter No. 1 Sol	G761	YL	XMSN Cont Speed 3 SW To Gnd
302	OR	Starter Relay No. 1 Resistor To Diagnostic	G762	BR	XMSN Cont Speed 4 SW To Gnd
304	WH	Starter Relay No. 1 Output	G763	PU	XMSN Cont Near To Gnd
306	GN	Starter Relay Ctl To Neut Start SW	G764	PK	XMSN Cont Pk Bkr Lever SW To Gnd
307	OR	Key SW To Neutral Start SW	G766	GN	Impl Cont SW To Gnd N.O.
308	YL	Main Power Relay Ctl	G767	WH	Impl Cont SW To Gnd N.C.
310	PU	Start Aid SW To Start Aid Sol	G768	GN	XMSN Cont Speed 1 SW To Gnd
311	WH	Start Aid Sol To Temp SW	H702	PU	Impl Cont Reversing Fan SW (N.O.)
321	BR	Backup Alarm Lamp Travel Alarm	H703	YL	Impl Cont Reversing Fan SW (N.C.)
322	GY	Warning Horn (Forward)	H704	PK	Impl Cont Reversing Fan Sol
326	RD	Key Switch Off	H709	BU	Impl Cont Kickout SW 2
327	PK	Shutdown Solenoid	H710	PK	Impl Cont Lift Lever Position
338	PK	Hood Ramp Relay Coil	H711	GN	Impl Cont Lift Lever Position
397	OR	Hood Raise Motor	H713	PK	Impl Cont Lift Proportional Sol
398	BU	Hood Raise Motor	H714	OR	Impl Cont Lower Proportional Sol
A300	GN	Hood Raise Relay Coil	H715	PU	Impl Cont Lower Kickout Sol
A301	WH	Hood Raise Relay Coil	H716	WH	Impl Cont Sol Return
<b>Monitoring Circuits</b>					
403	GN	Alternator (R) Term.	H717	BR	Impl Cont Pilot Press Sol
405	GY	Engine Oil Pressure	H719	OR	Impl Cont Lift Kickout Sol
410	WH	Opn Mon Action Alarm	H720	BU	Impl Cont Bucket Positioner Sol
411	PK	Opn Mon Master	H726	GN	Auto SW4 (9800)
416	OR	Suppl Star SW	H729	WH	Auto SW4 (9800)
417	GY	Primary Star SW	H730	PK	Auto SW 1 - 4 (9800)
419	YL	Cat Mon Parking Brake	818	BR	Serial Data (Transmit)
426	BR	Opn Mon Power Train Oil Filter	819	GY	Serial Data (Receive)
432	PK	Opn Mon Brake Press. (Oil)	900	PU	XMSN Shift Sol No. 5 or 4
441	OR	Eng Coolant Temp Gage	901	WH	XMSN Shift Sol No. 6
442	GY	Hyd System Temp Gage	910	YL	XMSN Neutralizer Override Indicator
443	YL	Power Train Temp Gage	944	OR	Data Link (+ CAT)
447	PK	Fuel Level Gage	945	BR	Data Link - (Neutral)
450	WH	Hyd Oil Level	973	BR	CST AutoShift: Auto/Manual SW 2
C413	YL	Display Data	975	WH	CST AutoShift: Sol Return
C414	BU	Display Load	976	OR	Ride Control Solenoid 1
E416	PU	PHS Lift Cyl Press Sensor	977	YL	CST AutoShift: Auto/Manual SW 1
E455	BR	Hyd. Filter Bypass Sw	E917	WH	Implement Lockout SW to Gnd (N.O.)
<b>Accessory Circuits</b>					
500	BR	Wiper - Front (Park)	E918	GN	Implement Lockout SW to Gnd (N.C.)
501	GN	Wiper - Front (Low)	E919	YL	AUX Lower Proportional Sol
502	OR	Wiper - Front (Hi)	E920	BR	AUX Lift Proportional Sol
503	BR	Wiper - Rear (Park)	E921	PK	Rackback Proportional Sol
504	YL	Wiper - Rear (Low)	E922	GN	Dump Proportional Solenoid
505	BU	Wiper - Rear (Hi)	E955	OR	WLPCS PH Keypad Data
506	PU	Washer - Front	E987	WH	Engine Speed Signal Return
507	WH	Washer - Rear	G839	PK	MAC-14 Switch Return
508	PU	Radio Speaker - Left	G842	OR	Impl 3rd Impl Lift Pres Sensor
509	WH	Radio Speaker - Left (Common)	G843	BU	Impl Func Select SW (N.O.)
511	BR	Radio Speaker - Right	G844	BR	Impl Func Select SW (N.C.)
512	GN	Radio Speaker - Right (Common)	G847	WH	Impl 4th Lever Pos Sensor
513	OR	A/C Compressor/Refrigerant Pressure SW	G948	BR	Impl Detent Lo SW (N.O.)
515	GY	Blower Motor (Hi)	G849	BR	Impl Detent Lo SW (N.C.)
516	GN	Blower Motor (Medium)	K833	BU	Slack 2 Bypass Sol
517	BU	Blower Motor (Low)	N839	GN	Ride Control Solenoid 2
518	OR	Hazard Flasher	X972	GN	Variable Shift Control Sw. (Power)
			X973	BU	Variable Shift Control Sw. (Economy)
			X974	BR	Variable Shift Control Sw. (Economy)

Related Electrical Service Manuals		
Title	Form Number	
Alternator 107-7977 (21S) STD	SEN4757	
Alternator 3E-7577 (26S) ATT	REN1252	
Caterpillar Monitoring System	SEN1394	
Electronic Implement Control System	SEN5861	
Electronic Transmission Control System	SEN3860	
Payload Control System	SEN6614	
Starting & Charging Systems	SEN2937	
Starting Motor (V-5539)		
6V-5540 (KE)	SEN3356	
6V-5552 (F8)	SEN4975	
106-5554 (42MT)	SEN3581	

Connector Location		
Connector Number	Schematic Location	Machine Location
CONN 1	B-15	23
CONN 2 Aux. Start Receptacle	B-15	13
CONN 3	E-15	28
CONN 4	F-15	2
CONN 5	F-15	27
CONN 6 Diagnostic Connector	H-15	5
CONN 7	I-14, 15	5
CONN 8	H-14	5
CONN 9	H-14	5
CONN 10	D-13, F-14	2
CONN 11	E-14	27
CONN 12	D-14	28
CONN 13	C-14	16
CONN 14	B-14	27
CONN 15	F-13	15
CONN 16	F-12	25
CONN 17	E-12	25
CONN 18	E-12	25
CONN 19	D-12	25
CONN 20	C-11	25
CONN 21 Powertrain Options Code Plug	I-10	25
CONN 22	G-10	25
CONN 23 ECAP Service Tool Connector	G-9	C
CONN 24 Harness Code Plug	H-9	C
CONN 25 Service Mode Plug	H-9	C
CONN 26	F-8	A
CONN 27	F-8	A
CONN 28	E-8	A
CONN 29	E-8	A
CONN 30 IMPL Control Options Code Plug	I-7	C
CONN 31	F-6	A
CONN 32	G-5	A
CONN 33	G-4	A
CONN 34 Customer Data Connection	C-4	6
CONN 35	B-4	D
CONN 36	E-3	26
CONN 37	F-3	26
CONN 38	I-3	14
CONN 39	F-1,2	24
CONN 40	E-2	19
CONN 41	B, C, 2	24
CONN 42	B, 2	26
CONN 43	A-2	23
CONN 44	D-1	19
CONN 45	E-1	10
CONN 46	F, I-1	9
CONN 47	F, H-1	21
CONN 48	G-1	34
CONN 49	G, I, 1	24
CONN 50	H-1	10
CONN 51	I-1	10
CONN 52	I-1	9

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.

Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Actuator - Blend Door	H-11	1	Sensor - Lift Lever Position	F-7	B
Actuator - Water Valve	H-11	1	Sensor - Tilt Lever Position	F-7	B
Alarm - Action	E-11	C	Sensor - Transmission Oil Temp	H-15	16
Alarm - Backup	D-14, E-15	2	Sensor - Trans. Output Speed	E-13	32
Alternator	C-15	3	Solenoid - Aux. Lift Proportional	D-1	19
Assembly - Block	B-15	4	Solenoid - Aux Lower Proportional	E-1	19
Battery	B-15	4	Solenoid - Dump Proportional	E-1	19
Breaker - Alternator	I-15	5	Solenoid - Engine Shutdown	C-15	20
Breaker - Engine Shutdown	I-15	5	Solenoid - Lift Lever K.O. Detent	F-7	B
Breaker - Hood Actuator	I-15	5	Solenoid - Lift Lever Lower Detent	F-7	B
Breaker - Main	I-15	5	Solenoid - Lift Proportional	D-1	19
Breaker - Running Lamp	I-15	5	Solenoid - Lower Proportional	D-1	19
Compressed A/C	C-15	22	Solenoid - Over/Prd Pilot	E-2	19
Control - Dimmer	E-11	D	Solenoid - Rackback Proportional	E-1	19
Control - Engine Shutdown	I-13	5	Solenoid - Reversing Fan	B-14	27
Control - Hood Reversing Motor	I-13	11	Solenoid - Ride Control (OFF)	G-1	34
Control - Implement	I-7	C	Solenoid - Ride Control (ON)	F, I, H-1	21
Control - Payload Monitor (WLPCS)	C-4	6	Solenoid - Start Aid	C-14	5
Control - Powertrain	I-10	C	Solenoid - Tilt Lever Bucket K.O. Detent	F-7	B
Control - Water Valve/Blend Door	G-11	1	Solenoids - Transmission Valves	F-14	15
Converter - Voltage	H-5	E	Suppressor - (Air/ A/C)	C-15	22
Flasher	F-11	C	Switch - Neutralizer	B-1	24
Fuses	D-11, I-15	C	Switch - A/C - Heater Selector	B-9	D
Gauge - Tachometer/Speedometer	E-4	A	Switch - Auto Ride Control	B-5	D
Ground - Cab	H-10, E-10	C	Switch - Beacon	B-9	D
Ground - Cab	H-8	C	Switch - Blower	B-9	D
Ground - Cab to Frame	B-3	C	Switch - Brake	G-1	23
Ground - Chassis	H-13	7	Switch - Bucket Positioner	G-1, I-1	29
Ground - Engine	B-15	12	Switch - Dimmer	B-1	D
Ground - Frame	B-15	8	Switch - Disconnect	B-15	13
Horns - Forward	F-1, I-1	9, 10	Switch - Engine Oil Pressure	G-15	16
Keypad - Payload Mon (WLPCS)	C-4	6	Switch - Forward Horn	G-5	A
Module - Quat Gauge	F-4	A	Switch - Front Intermittent Wiper	B-4	D
Monitor - Caterpillar Monitoring System	E-5	A	Switch - Hazard Lamp	E-9	E
Motor - Blower	G-10	1	Switch - High/Low Pressure	C-15	3
Motor - Front Washer	A-15	33	Switch - Hood Actuator	A-14	11
Motor - Front Wiper	D-5	A	Switch - Hydraulic Oil Level	A-2	17
Motor - Hood Actuator	A-15	11	Switch - Implement Function Select	F-9	B
Motor - Rear Washer	B-15	33	Switch - Implement Lock Out	F-4	B
Motor - Rear Wiper	F-10	C	Switch - Key Start	D-5	A
Motor - Starter	C-15	12	Switch - Lift Kickout Set	G-8	E
Potentiometer - Temp Selector	B-9	D	Switch - Operator Mon Mode Select	G-5	A
Receptacle - Auxiliary Start	B-15	13	Switch - Park Brake	G-2	23
Relay - Backup Lamp / Alarm	E-15	36	Switch - Rear Wiper	C-9	D
Relay - Cab Flood Lamp	E-10	C	Switch - Reverse Fan	C-7	D
Relay - Main	I-14, I-15	5	Switch - Running Lamps	C-8	D
Relay - Start	I-14	5	Switch - Start Aid	G-5	A
Relay - Turn Signal	F-6	A	Switch - Start Aid Coolant	H-15	A
Resistor - Blower Speed	G-10	1	Switch - Steering Pressure	I-3	14
Resistor - Starting System Diag.	C-15	12	Switch - Stop Lamp	B-1	24
Sensor - Fuel Level	I-3	14	Switch - Thermostat	G-10	1
Sensor - 3rd Lever Position	F-9	B	Switch - Trans. Neutralizer Override	B-5	D
Sensor - Coolant Temperature	H-15	31	Switch - Transmission Auto/Manual	B-8	D
Sensor - Engine Speed	G-15	16	Switch - Transmission Filter Bypass	E-14	25
Sensor - Hydraulic Temperature	A-2	17	Switch - Transmission Shifter	G-4	A
Sensor - Lift Arm Position	G-1, I-1	18	Switch - Turn Lamp	F-5	A
Sensor - Lift Cyl Head End Pressure	D-1	19	Terminal Stud	D-11	C
Sensor - Lift Cyl Rod End Pressure	D-1	35			

Machine locations are repeated for components located close together.

A = Components in dash.  
B = Components in right console.  
C = Components at fuse panel behind seat.  
D = Components in right headliner.  
E = Components in left headliner.





