W18, W20, W20B Loaders

PIN 9123140 and After

Service Manual

9-68960

MidWestTech | Case W18, W20, W20B Loader Service Manual | Publication 9-71698

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Information below is for Figure 8 only.

ELECTRICAL SYSTEM CIRCUITS

NOTE: The numbers on the harness plugs are for identification of the terminals only. These numbers are not the same as the numbers for the electrical system circuits.

Wire No.	Color	From	To
1	Gray	Instrument Lights in Instrument Cluster (FF)	15 ohm Resistor (O)
2	Red-Green	Air Pressure Gauge (CC)	Air Pressure Sending Unit (QQ)
3	Yellow-Red	Torque Converter Temperature Gauge (BB)	Converter Temperature Sending Unit (NN)
4	Black	Instrument Lights (FF), Air Pressure Gauge (CC) and Torque Converter Temperature Gauge (BB)	Ground Connection at Loader Valve (H)
5	Purple	Torque Converter Temperature Gauge (BB) and Air Pressure Gauge (CC)	Cab Magnetic Switch (UU)
6	White-Red	Alternator Warning Light (Z)	Alternator (CCC and DDD)
7	Brown-Red	Brake Warning Light (AA)	Parking Brake Switch (K)
8	Purple	Alternator Warning Light (Z) and Brake Warning Light (AA)	5 Ampere Circuit Breaker (S)
9	Purple	Left Instrument Cluster Harness Plug (V)	Left Instrument Cluster Harness Plug (V)
10	Purple	Right Instrument Cluster Harness Plug (U)	Right Instrument Cluster Harness Plug (U)
11	Tan-Black	Fuel Gauge (DD)	Fuel Level Sending Unit (BBB)
12	Light Blue-Yellow	Water Temperature Gauge (EE)	Engine Temperature Sending Unit (RR)
13	Black	Water Temperature Gauge (EE) and Fuel Gauge (DD)	Ground Connection at Loader Valve (H)
14	Purple	Water Temperature Gauge (EE) and Fuel Gauge (EE)	Brake Warning Air Pressure Switch (L)
15	Black-White	Engine Oil Pressure Light (Y)	Engine Oil Pressure Switch (ZZ)
16	Orange-Green	Clutch Pressure Warning Light (X)	Clutch Pressure Switch (LL)
17	Purple	Engine Oil Pressure (Y) and Clutch Pressure Warning Lights (X)	5 Ampere Circuit Breaker (S)
18	White	Key Switch (R)	Neutral Start Switch (MM)
19	Pink-White	Key Switch (R)	Light Switch (N)
20	Orange-White	Key Switch (R)	Cold Start Terminal (E)
21	Pink	Light Switch (N)	Left Driving Light (I)
22	Pink	Light Switch (N)	Right Driving Light (A)
23	Yellow	Light Swtch (N)	Diode At Brake Light Switch (HH)
24	Red-Black	Light Switch (N)	Through Stop Light Switch to 15 Ampere Circuit Breaker (SS)
25	Red-Black	Light Switch (N)	15 Ampere Circuit Breaker (SS)
26	Dark Green	Light Switch (N)	Right Front Floodlight (B)
27	Dark Green	Light Switch (N)	Left Front Floodlight (J)
28	Dark Green	Light Switch (N)	Optional Floodlight on Cab (NNN)
29	Dark Blue	Light Switch (N)	Left Rear Floodlight (JJJ)
30	Gray	Light Switch (N)	15 ohm Resistor (O)
31	Gray	Light Switch (N)	39 ohm Resistor (P)
32	Gray	39 ohm Resistor (P)	Instrument Panel Lights (Q)
33	Black-Orange	Optional Cold Start Button (F)	Cold Start Solenoid (PP)
34	Orange-Black	5 Ampere Circuit Breaker (S)	Optional Auxiliary Steering (G)
35	Orange-White	5 Ampere Circuit Breaker (T)	Plugs at Loader Valve (C and D)
36	Blue-White	Plug at Loader Bucket Spool (D	Optional Return-To-Dig Harness. See Figure 11.
37	Brown-White	Plug at Loader Lift Spool (C)	Optional Bucket Height Control Harness. See Figure 11.

38	Red	Key Switch (R)	5 Ampere Circuit Breaker (T)
39	Gray	Key Switch (R)	5 Ampere Circuit Breaker (S)
40	Purple	5 Ampere Circuit Breaker (S)	Optional Turn Signal Switch (GG)
41	White-Blue	Optional Turn Signal Switch (GG)	Through Cab Harness Plug to Turn Signals on Cab (KK)
42	Light Blue	Optional Turn Signal Switch (GG)	Through Cab Harness Plug to Turn Signals on Cab (KK)
43	Tan	Stoplight Switch (II)	Stoplight (III)
44	Blue-Red	Cab Harness Plug (KK)	Optional Air Conditioning Compressor Clutch (YY)
45	Orange-Black	Cab Harness Plug (KK)	Cab Magnetic Switch (UU)
46	Orange-Black	Cab Harness Plug (KK)	Cab Magnetic Switch (UU)
47	Purple-Black	Neutral Start Switch (MM)	Starter Magnetic Switch (VV)
48	Black-Red	Optional Backup Alarm Switch (OO)	Optional Backup Alarm (HHH)
49	Purple-Red	15 Ampere Circuit Breaker (SS)	Optional Backup Alarm Switch (OO)
50	Yellow-Black	Cab Magnetic Switch (UU)	Electric Fuel Pump (AAA)
51	Red	40 Ampere Circuit Breaker (TT)	Alternator (CCC and DDD)
52	Brown	Starter Magnetic Switch (VV)	Alternator (CCC and DDD)
53	Black	Starter Magnetic Switch Mounting Bolt (VV)	Ground at Loader Control Valve (H)
54	Red	15 Ampere Circuit Breaker (SS)	40 Ampere Circuit Breaker (TT)
55	Red	40 Ampere Circuit Breaker (TT)	Cab Magnetic Switch (UU)
56	Red	40 Ampere Circuit Breaker (TT)	Starter Magnetic Switch (VV)
57	White-Red	Connector at Alternator (DDD)	Optional 65 Ampere Alternator Relay (EEE)
58	Black	Optional 65 Ampere Alternator Alternator (EEE)	Ground
59	Dark Blue	Left Rear Floodlight (JJJ)	Optional Right Rear Floodlight (FFF)
60	Tan	Left Stoplight and Taillight (III)	Right Stoplight and Taillight (not used) (GGG)

ELECTRICAL SYSTEM COMPONENTS

A.	Right Driving Light
AA.	Brake Warning Light
AAA.	Electric Fuel Pump
B.	Right Front Floodlight
BB.	Torque Converter Temperature
BBB.	Fuel Level Sending Unit
C.	Connects to Lift Spool Magnetic Detent
CC.	Air Pressure Gauge
CCC.	40 Ampere Alternator
D.	Connects to Bucket Spool Magnetic Detent
DD.	Fuel Gauge
DDD.	65 Ampere Alternator
E.	Optional Cold Start Button
EE.	Water Temperature Gauge
EEE.	Relay
F.	Optional Cold Start Valve
FF.	Instrument Panel Lights
FFF.	Right Rear Floodlight (Optional)
G.	Connects to Optional Auxiliary Steering Control
GG.	Turn Signal Switch
GGG.	Not Used
H.	Ground Connection at Loader Control Valve
HH.	Diode
HHH.	Connects to Backup Alarm (Optional)
I.	Left Driving Light
II.	Stoplight Switch
III.	Stoplight and Tallight
J.	Left Front Floodlight
JJ.	10 Ohm, 12 Watt Resistor
JJJ.	Left Rear Floodlight
K.	Parking Brake Switch
KK.	Connects to Cab Harness
KKK.	6 Volt Batteries
L.	Brake Warning Air Pressure Switch
LL.	Clutch Pressure Switch
LLL.	Rear Harness
M.	Low Air Pressure Warning Buzzer
MM.	Neutral Start Switch
MMM.	Front Harness
N.	Light Switch
NN.	Torque Converter Temperature Sending Unit
NNN.	Connects to Optional Floodlight
O.	15 Ohm, 12 Watt Resistor
OO.	Backup Alarm Switch (Optional)
P.	39 Ohm, 12 Watt Resistor
PP.	Connects to Mounting Bolt at Cold Start Valve
Q.	Instrument Panel Lights
QQ.	Air Pressure Sending Unit
R.	Key Switch
RR.	Engine Temperature Sending Unit
S.	5 Ampere Circuit Breaker
SS.	15 Ampere Circuit Breaker
T.	5 Ampere Circuit Breaker
TT.	40 Ampere Circuit Breaker
U.	Connects to Right Side of Instrument Cluster
UU.	Cab Magnetic Switch
V.	Connects to Left Side of Instrument Cluster
VV.	Starter Magnetic Switch
W.	Instrument Cluster
WW.	40 Ohm Resistor
X.	Clutch Pressure Warning Light
XX.	Starter
Y.	Engine Oil Pressure Light
YY.	Connects to Air Conditioning Compressor Clutch (Optional)
Z.	Alternator Warning Light
ZZ.	Engine Oil Pressure Switch

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