CASE

REPAIR MANUAL

Crawler Excavator

CX330

9-53592

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592

Order the manual at mid-west-tech.com >

NOTES

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE 3
Machine 3
Engine 3
Serial numbers of the components 3
INGREDIENTS 4
Hydraulic fluid chart 4
Transmission assembly oil 4
Greases 4
Engine oil 5
Viscosity of oils/Operating range of oils 5
Fuel 6
Antifreeze/anticorrosive 6
Environment 6
Plastic and resin parts 6
SPECIFICATIONS 7
Engine 7
Capacities 7
Electrical system 7
Hydraulic system 8
Cylinder 8
Control valve 9
Swing 9
Travel 9
Undercarriage 9
Attachment 10
Weight of components 10
DIMENSIONS AND WEAR LIMIT OF THE TRACK ASSEMBLY 11
Sprocket 11
Idler wheel 12
Upper roller 13
Lower roller 14
Track 15
DIMENSIONS AND WEAR LIMITS OF ATTACHMENT LINKAGES 16
Boom foot/Frame 16
Boom cylinder foot/Frame 17
Boom cylinder head/Boom 17
Dipper cylinder foot/Boom 18
Boom/Dipper 18
Dipper cylinder head/Dipper 18
Bucket cylinder foot/Dipper 19
Connecting rod/Dipper 19
Compensator/Bucket 19
Connecting rod/Compensator/Bucket cylinder head 20
Dipper/Bucket 20
SPECIAL TORQUE SETTINGS 21
MACHINE OVERALL DIMENSIONS 24

WARNING: *This symbol is used in this manual to indicate important safety messages. Whenever you see this symbol, carefully read the message which follows. Your safety depends on it.*

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE

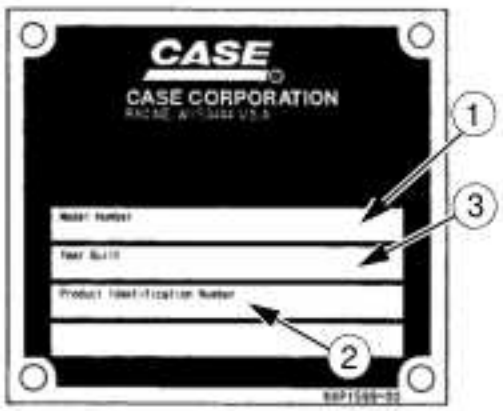
For all part orders, request for information or assistance, always specify the type and the serial number of the machine to your Case dealer.

Fill in the following lines with the required information: Type, serial number, year of manufacture of the machine and the serial numbers of the hydraulic and mechanical components.

Machine



CP98M005



CS00MB18

(1) Type.....

(2) Serial number.....

(3) Year of manufacture.....

Engine

Make and type .....

Serial number .....

Serial numbers of the components

Hydraulic pump.....

Swing reduction gear.....

Travel reduction gears.....

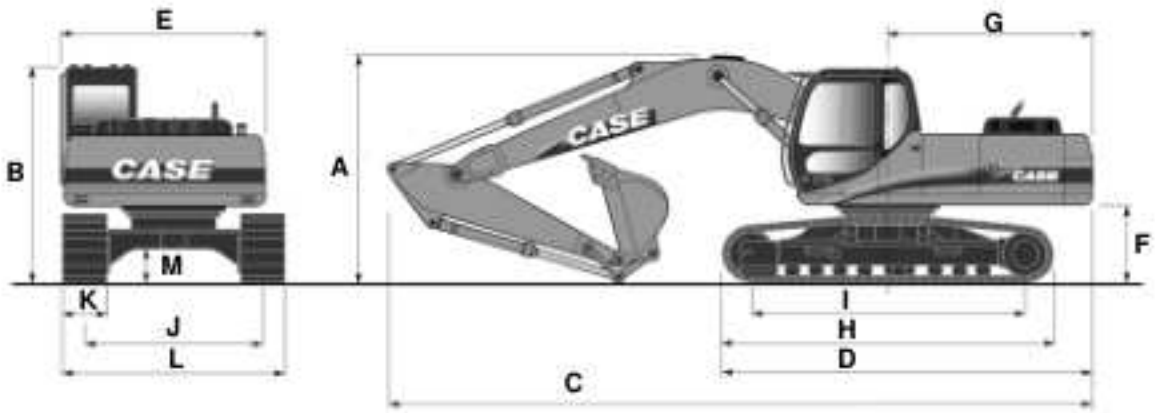
Travel control valve.....

Attachment control valve .....

Swing control valve.....

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >

MACHINE OVERALL DIMENSIONS



	Dippers		
	8 ft 8 in	**10 ft 8 in**	**13 ft 3 in**
A	11 ft 5 in	15 ft 7 in	11 ft 6 in
B (with vandal cover)	11 ft 3 in	10 ft 3 in	10 ft 3 in
C	36 ft 5 in	36 ft 3 in	36 ft 5 in
D	19 ft 3 in	23 ft 7 in	23 ft 7 in
E (with catwalks)	11 ft 9 in	11 ft 9 in	11 ft 9 in
F	4 ft 0 in	4 ft 0 in	4 ft 0 in
G	11 ft 3 in	11 ft 3 in	11 ft 3 in
H	16 ft 3 in	16 ft 3 in	16 ft 3 in
I	13 ft 2 in	13 ft 2 in	13 ft 2 in
J	8 ft 6 in	8 ft 6 in	8 ft 6 in
K (Standard shoe)	31.5 in	31.5 in	31.5 in
L (with 27.5 in track pads)	10 ft 10 in	10 ft 10 in	10 ft 10 in
L (with 31.4 in track pads)	11 ft 2 in	11 ft 2 in	11 ft 2 in
M	1 ft 5 in	2 ft 9 in	2 ft 9 in

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >

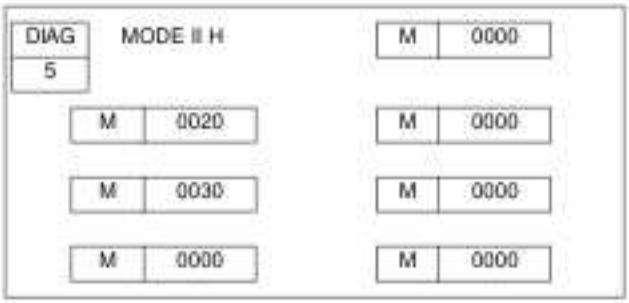
Failure code

M0000:	No defect
M0010:	Transistor output short-circuit
M0020:	Hydraulic oil temperature detector
M0030:	Fuel level detector
M0040:	Pressure detector P1
M0050:	Pressure detector P2
M0060:	Negative pressure detector
M0070:	Starter motor switch
M0080:	Upper or travel pilot pressure switch
M0090:	CAN communication error
M00A0:	Electronic control box re-initialization

Example:

The screen above shows a failure in the hydraulic oil temperature sender (0020).

5. Previous failures on the excavator DIAG5



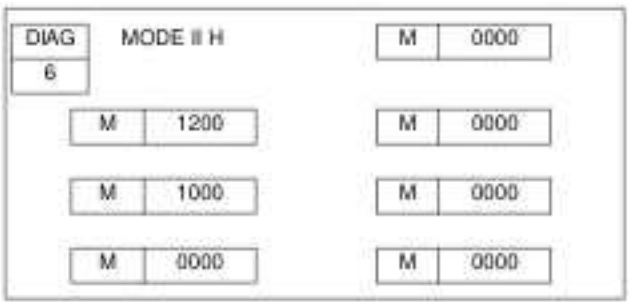
M: Failure code

Example:

The screen above shows that there is a failure in the hydraulic oil temperature sender and in the fuel level sender.

6. Previous failures on the excavator DIAG6

This screen is connected to the previous screen (DIAG5) as regards failures involving the hourmeter.



M: Failure code

Example:

The screen above shows that failure code 0020 (hydraulic oil temperature sender) occurred at 1200 H and that failure code 0030 occurred at 1000 H.

A. The numbers of hours shown indicate the time at which the failures occurred for the first time since the data was re-initialized.
B. To erase the failure codes and the number of hours, press the work mode switch for 10 seconds.
C. When data is erased from screens DIAG5 and DIAG6, it is recorded in the computer memory (this data is only visible using an external computer).

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >

Assembly

NOTE: *The numbers within brackets in the following steps refer to the schematic on page 15.*

NOTE: *When installing, install new seal rings.*

STEP 1

Install an O-ring (37) on the valve body (39).

STEP 2

Install the spring seat (34) in the valve body (39).

STEP 3

Oil the inside of the spring seat (34). Install the check valve (35) in the spring seat (34).

STEP 4

Install the spring (36) on the valve body (39).

STEP 5

Install an O-ring (41) on the liner (46). Install a shim (38) on the spring (36).

STEP 6

Install the liner (46) in the valve body (39), taking care not to damage the O-ring (41).

STEP 7

Install the piston (40) in the sleeve (45). Install the sleeve (45) in the liner (46).

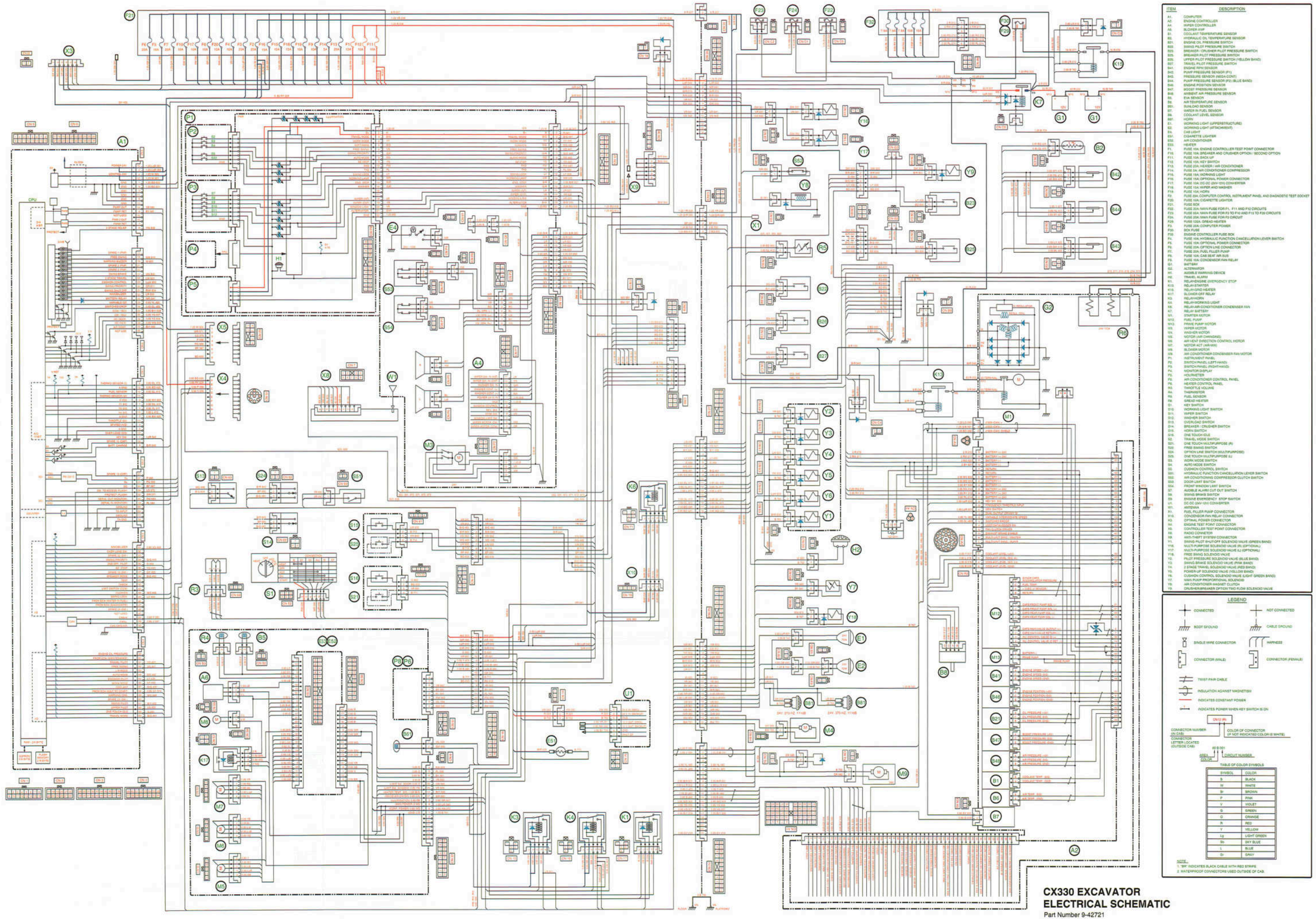
STEP 8

Install a back up ring (42) and an O-ring (43) on the plug (44). Install the plug (44) in the liner (46).

STEP 9

Install the blank nut (47).

MidWestTech | Case CX330 Crawler Excavator Service Manual | Publication 9-53592 Order the manual at mid-west-tech.com >



CX330 EXCAVATOR ELECTRICAL SCHEMATIC

Part Number 9-42721

Order the manual at mid-west-tech.com >

CX330 EXCAVATOR HYDRAULIC / ELECTRIC SCHEMATIC

ITEM	DESCRIPTION	PRESSURE SETTINGS
A =	MAIN RELIEF (STANDARD)	34.3 MPa / 343 Bar / 4975 PSI
A =	MAIN RELIEF (BOOST)	37.3 MPa / 373 Bar / 5408 PSI
B =	BOOM RAISING PORT SECONDARY RELIEF	39.2 MPa / 392 Bar / 5685 PSI
B1/B2 =	RELIEF ON BOOM HBCV	39.2 MPa / 392 Bar / 5685 PSI
C =	BOOM LOWERING PORT SECONDARY RELIEF	27.4 MPa / 274 Bar / 3974 PSI
D =	DIPPER OUT PORT SECONDARY RELIEF	39.2 MPa / 392 Bar / 5685 PSI
D1 =	RELIEF ON DIPPER HBCV	39.2 MPa / 392 Bar / 5685 PSI
E =	DIPPER IN PORT SECONDARY RELIEF	39.2 MPa / 392 Bar / 5685 PSI
F =	BUCKET OPEN PORT SECONDARY RELIEF	39.2 MPa / 392 Bar / 5685 PSI
G =	BUCKET CLOSE PORT SECONDARY RELIEF	39.2 MPa / 392 Bar / 5685 PSI
H =	PILOT PRESSURE RELIEF	3.9 MPa / 39 Bar / 565 PSI
I =	RIGHTHAND SWING PORT SECONDARY RELIEF	30 MPa / 300 Bar / 4351 PSI
J =	LEFTHAND SWING PORT SECONDARY RELIEF	30 MPa / 300 Bar / 4351 PSI
K1/K2 =	TRAVEL REVERSE PORT SECONDARY RELIEF	38 MPa / 383 Bar / 5511 PSI
L1/L2 =	TRAVEL FORWARD PORT SECONDARY RELIEF	38 MPa / 383 Bar / 5511 PSI
M1/M2 =	NEGATIVE CONTROL RELIEF	2.85 MPa / 28.9 Bar / 419 PSI
S1 =	ACCUMULATOR PRECHARGE	1.5 MPa / 15 Bar / 212 PSI
R1/R2 =	CRUSHER OPTION SECONDARY RELIEF VALVE	xxx MPa / xxx Bar / xxx PSI

ITEM	DESCRIPTION
1.	HYDRAULIC RESERVOIR
2.	BREATHER
4.	BY-PASS VALVE
5.	SCREEN FILTER
6.	RETURN FILTER
10.	MAIN HYDRAULIC PUMP
15.	MAIN CONTROL VALVE
16.	HYDRAULIC SWIVEL
21.	TRAVEL MOTOR
22.	SWING MOTOR
23.	TRAVEL MOTOR BRAKE
25.	RIGHT BOOM CYLINDER
26.	LEFT BOOM CYLINDER
27.	DIPPER CYLINDER
28.	BUCKET CYLINDER
29.	BOOM ANTI-HOSE BURST VALVE
30.	DIPPER ANTI-HOSE BURST VALVE
31.	DIPPER ANTI-DRIFT VALVE
32.	BOOM ANTI-DRIFT VALVE
41.	FILTER (ULTRA-CLEAN)
42.	OIL COOLER
43.	RETURN MANIFOLD
44.	OIL COOLER BYPASS VALVE
45.	NON-RETURN CHECK VALVE
51.	ACCUMULATOR
52.	6 SOLENOID VALVE BANK
53.	BOOM & BUCKET CONTROL LEVER
54.	SWING & DIPPER CONTROL LEVER
55.	TRAVEL CONTROL PEDAL
56.	DIPPER CONTROL SHOCK ABSORBER
57.	BOOM & DIPPER CONTROL SHOCK ABSORBER
58.	PILOT AND RETURN SYSTEM MANIFOLD
59.	FILTER
60.	PILOT SYSTEM MANIFOLD
62.	STRAIGHT LINE TRAVEL PEDAL
63.	SHUTTLE VALVE BLOCK
65.	CALIBRATED ORIFICE
66.	MULTI-PURPOSE SOLENOID VALVE (OPTIONAL)
72.	CONTROL PEDAL (OPTIONAL)
75.	FLOW RE-INJECTION BLOCK (OPTIONAL)
76.	3 WAY SELECTOR (OPTIONAL)
78.	RETURN FILTER (OPTIONAL)
79.	CONTROL SHUTTLE BLOCK (OPTIONAL)
81.	SWING SHUTTLE BLOCK
82.	PILOT CIRCUIT FILTER
83.	SHUTOFF VALVE (OPTIONAL)
84.	T-SHUTTLE BLOCK (OPTIONAL)
85.	HAND FOOT CONTROL PILOT FILTER
86.	PILOT FILTER BYPASS VALVE
90.	HYDRAULIC BREAKER VERSION PLUG
91.	SAFETY VALVE VERSION PLUG
106.	ANTI PENDULUM VALVE
107.	TWO STAGE TRAVEL VALVE
108.	STRAIGHT TRAVEL VALVE
109.	SWING PRIORITY VALVE
110.	DIPPER REGENERATION VALVE
B22.	SWING PILOT PRESSURE SWITCH
B23.	BREAKER / CRUSHER PILOT PRESSURE SWITCH
B25.	BREAKER PILOT PRESSURE SWITCH
B26.	UPPER PILOT PRESSURE SWITCH (YELLOW BAND)
B27.	TRAVEL PILOT PRESSURE SWITCH
M3.	PRESSURE TEST POINT
Y1.	SWING PILOT SHUTOFF SOLENOID VALVE (GREEN BAND)
Y2.	PILOT PRESSURE SOLENOID VALVE (BLUE BAND)
Y3.	SWING BRAKE SOLENOID VALVE (PINK BAND)
Y4.	2 STAGE TRAVEL SOLENOID VALVE (RED BAND)
Y5.	POWER-UP SOLENOID VALVE (YELLOW BAND)
Y6.	CUSHION CONTROL SOLENOID VALVE (LIGHT GREEN BAND)
Y7.	MAIN PUMP PROPORTIONAL SOLENOID
Y9.	CRUSHER/BREAKER OPTION TWO FLOW SOLENOID VALVE
Y16.	MULTI-PURPOSE SOLENOID VALVE (R)
Y17.	MULTI-PURPOSE SOLENOID VALVE (L)
Y18.	FREE SWING SOLENOID VALVE

LEGEND

- P1 PUMP
- P2 PUMP
- PILOT SYSTEM PUMP
- RETURN TO RESERVOIR
- LEAK-OFF-RETURN
- PILOT SYSTEM CIRCUIT
- COMPONENT BOUNDARY
- HOSE
- PIPING CONNECTION
- PIPING CROSS-OVER
- 41 COMPONENT ITEM NO.
- 15 / 2 COMPONENT NUMBER
- CONNECTION ITEM NO
- * OPTION ITEM NO

CX330 EXCAVATOR
HYDRAULIC SCHEMATIC
Number - 9-42721

Order the manual at mid-west-tech.com >