CX460
CRAWLER EXCAVATOR

Service Manual

9-53601

CASE

MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601

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

CX460 Crawler Excavators
Table of Contents

DIVISION/SECTION		SECTION N°	REFERENCE N°
1	**GENERAL INFORMATION**		
	Safety, general information and standard torque data	1001	9-53360
	General specifications and special torque setting	1002	9-53800
2	**ENGINE**		
	Removal and installation of the engine	2000	9-54180GB
	Radiator and oil-cooler	2001	9-43480GB
	Engine specifications	*	
	Disassembly and assembly of the engine	*	
3	**FUEL SYSTEM**		
	Fuel tank	3001	9-43470GB
	Fuel engine system	*	
4	**ELECTRICAL SYSTEM**		
	Electrical system, electrical and electronic troubleshooting	4001	9-57920
	Inspection and maintenance of batteries and connecting a booster battery	4002	9-43460GB
	Main and engine electronic control boxes	4003	9-43450GB
5	**UNDERCARRIAGE**		
	Removal and installation of tracks	5001	9-42910GB
	Rollers	5003	9-44830GB
	Sprocket	5004	9-36890GB
	Idler wheel and tension shock absorber	5005	9-44820GB
6	**DRIVE TRAIN**		
	Drive motor and final drive transmission removal and installation	6001	9-43140GB
	Swing reduction gear, removal and installation	6003	9-44810GB
	Swing reduction gear, disassembly and assembly	6004	9-44590GB
	Travel reduction gear assembly and disassembly	6005	9-53710GB
7	**UNDERCARRIAGE HYDRAULICS**		
8	**UPPERSTRUCTURE HYDRAULICS**		
	Depressurising and decontaminating the hydraulic system, use of the vacuum pump and bleeding the components	8000	9-44560GB
	Specifications, troubleshooting, checks and hydraulic pressure settings	8001	9-53810
	Hydraulic reservoir removal and installation	8002	9-43230GB
	Main and pilot pumps, removal and installation	8003	9-53950GB
	Main hydraulic control valve, removal and installation	8004	9-53990GB
	Attachment cylinders, removal and installation	8005	9-43250GB
	Hydraulic swivel, removal and installation	8006	9-43390GB
	Pilot blocs, removal and installation	8007	9-53980GB
	Swing motor, removal and installation	8008	9-53970GB
	Free swing disassembly and assembly	8009	9-35530
	Main hydraulic pump, disassembly and assembly	8010	9-43330GB
	Main hydraulic control valve, disassembly and assembly	8011	9-54310GB
	Attachment cylinders, disassembly and assembly	8012	9-53690GB
	Hand control levers, disassembly and assembly	8013	9-54000GB
	Foot control levers, disassembly and assembly	8014	7-28210GB
	Six-solenoid valves, disassembly and assembly	8015	9-54050GB
	Caution valve, disassembly and assembly	8016	7-27942GB
	Anti hose burst valve	8017	9-54100GB
	Hydraulic swivel, disassembly and assembly	8018	9-43190GB
	Swing motor, disassembly and assembly	8019	9-54140GB
	Hydraulic functions	8020	9-42740GB
	Travel hydraulic motor, disassembly and assembly	8021	9-43160GB

Copyright © 2003 CNH France SA
Printed in France
January 2003

MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601 Order the manual at mid-west-tech.com >

DIVISION/SECTION	SECTION N°	REFERENCE N°
9 UPPERSTRUCTURE		
Upperstructure, turntable and counterweight	9002	9-43410GB
Boom, dipper and bucket	9003	9-53280GB
Seat and seat belt	9004	9-40960GB
Cab and cab equipment	9005	9-53410GB
Air conditioning troubleshooting	9006	[redacted]
Air conditioning unit disassembly and assembly	9007	[redacted]
Air conditioning servicing	9008	[redacted]
Air conditioning components	9009	[redacted]
Attachment reinforcement procedures	9012	9-43930
Large format hydraulic and electrical schematics	Pocket	9-43180

* *Consult the Engine Service Manual*

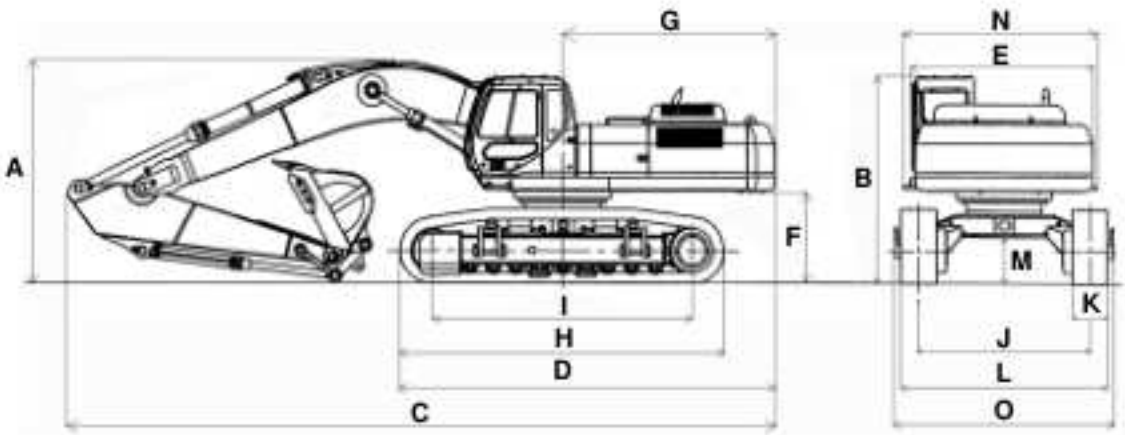
[redacted] *Sections to be distributed at a later date*

NOTE: CNH Company reserves the right to make changes in the specification and design of the machine without prior notice and without incurring any obligation to modify units previously sold.

The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document.

MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601 Order the manual at mid-west-tech.com >

MACHINE OVERALL DIMENSIONS



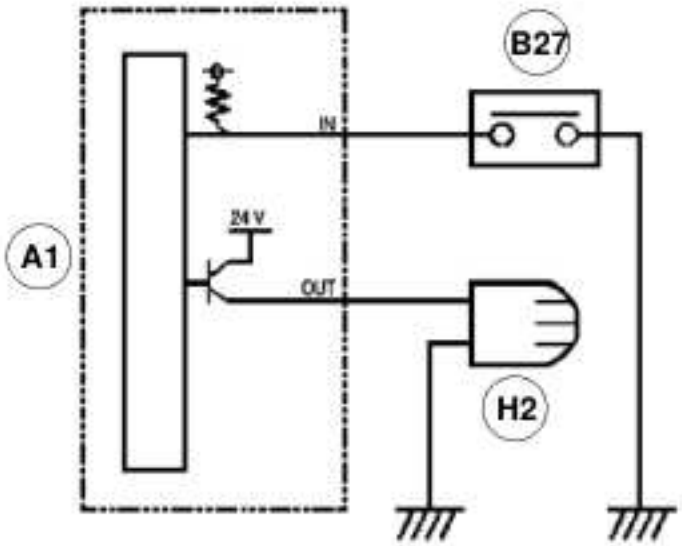
CS01M503

	Dippers			
	8 ft 4 in	11 ft 1 in	13 ft 1 in	15 ft 11 in
A	12 ft 2 in	12 ft 0 in	11 ft 10 in	14 ft 3 in
B	11 ft 5 in	11 ft 5 in	11 ft 5 in	11 ft 5 in
C	39 ft 3 in	39 ft 1 in	38 ft 11 in	39 ft 6 in
D				
E	10 ft 1 in	10 ft 1 in	10 ft 1 in	10 ft 1 in
F	4 ft 10 in	4 ft 10 in	4 ft 10 in	4 ft 10 in
G	11 ft 10 in	11 ft 10 in	11 ft 10 in	11 ft 10 in
H	17 ft 11 in	17 ft 11 in	17 ft 11 in	17 ft 11 in
I	14 ft 5 in	14 ft 5 in	14 ft 5 in	14 ft 5 in
J (working position)	9 ft 6 in	9 ft 6 in	9 ft 6 in	9 ft 6 in
J (transport position)	7 ft 10 in	7 ft 10 in	7 ft 10 in	7 ft 10 in
K (standard shoe width)	35.4 in	35.4 in	35.4 in	35.4 in
L (with 23.6 in track pads, working position)	11 ft 5 in	11 ft 5 in	11 ft 5 in	11 ft 5 in
L (with 23.6 in track pads, transport position)	9 ft 10 in	9 ft 10 in	9 ft 10 in	9 ft 10 in
L (with 29.5 in track pads, working position)	11 ft 11 in	11 ft 11 in	11 ft 11 in	11 ft 11 in
L (with 29.5 in track pads, transport position)	10 ft 4 in	10 ft 4 in	10 ft 4 in	10 ft 4 in
L (with 31.5 in track pads, working position)	12 ft 1 in	12 ft 1 in	12 ft 1 in	12 ft 1 in
L (with 31.5 in track pads, transport position)	10 ft 6 in	10 ft 6 in	10 ft 6 in	10 ft 6 in
L (with 35.4 in track pads, working position)	12 ft 5 in	12 ft 5 in	12 ft 5 in	12 ft 5 in
L (with 35.4 in track pads, transport position)	10 ft 10 in	10 ft 10 in	10 ft 10 in	10 ft 10 in
M	2 ft 5 in	2 ft 5 in	2 ft 5 in	2 ft 5 in
N	11 ft 9 in	11 ft 9 in	11 ft 9 in	11 ft 9 in
O (working position)	12 ft 5 in	12 ft 5 in	12 ft 5 in	12 ft 5 in
O (transport position)	10 ft 10 in	10 ft 10 in	10 ft 10 in	10 ft 10 in

MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601 Order the manual at mid-west-tech.com >

Travel Alarm

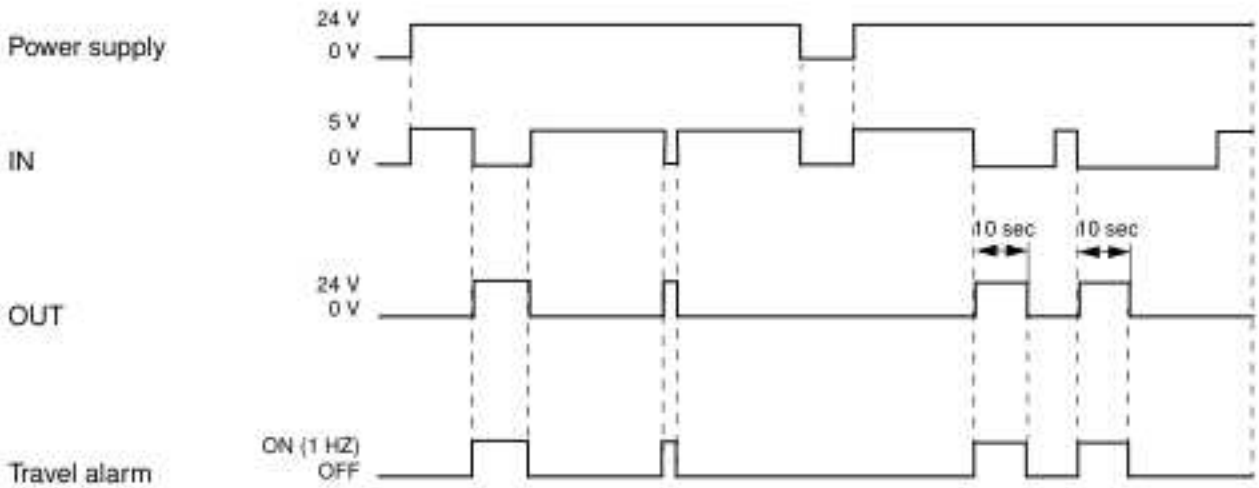
1) Circuit configuration



CS00J504

A1 Computer
B27 Travel pilot pressure switch
H2 Travel alarm

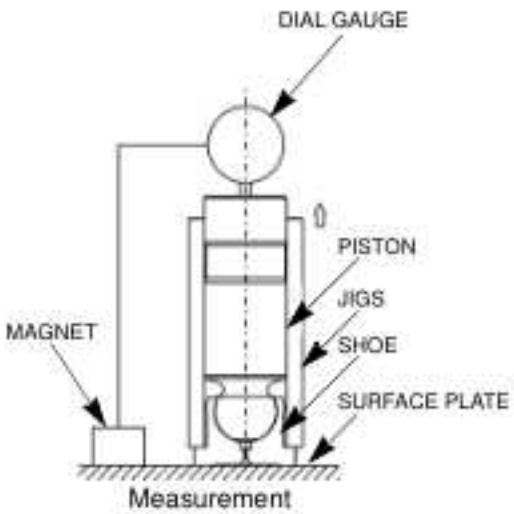
2) Timing diagram



MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601 Order the manual at mid-west-tech.com >

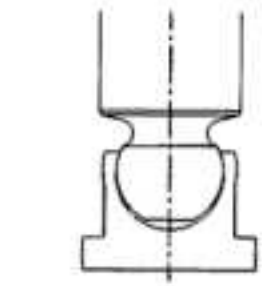
Inspection

Items to measure and methods of measurement	Criterion and remedy			
1. Sliding surfaces on cylinder block, valve plate and shoe plate Measure the roughness of the sliding surfaces of these parts using surface roughness gauge.	Table 2. Items and what to be inspected	Surface roughness: standard	Surface roughness: acceptable limit	Remedy
	Surface roughness of cylinder block, valve plate and shoe plate	0.4 Zμ or below	3.0 Zμ or below	Repair or replace
	Attention! Lapping is required to repair the surface roughness of cylinder block and valve plate. (Lapping material: # 1200)			
Measure the hardness of the sliding surfaces of shoe plate using hardness meter.	Table 3. Items and what to be inspected	Hardness: standard	Hardness: acceptable limit	Remedy
	Shoe plate	HS78 or above	HS74	Replace
2. Clearance between piston and cylinder block Measure the outer diameter of piston and the inner diameter of cylinder using a micrometer at 3 locations at least in the longitudinal direction. The maximum outer diameter is represented as d, minimum diameter as d_1, maximum hole diameter as D and minimum diameter as D_1.	Table 4. Items and what to be inspected	Standard	Allowable values	Remedy
	Outer diameter of piston d-d_1 Inner diameter of cylinder bore D_1-D Clearance D-d	0.00039 in 0.00039 in 0.0014 to 0.0018 in	0.0019 in 0.0008 0.0025	Replace piston or cylinder block
	Attention! All 9 pistons must be replaced together if replacement is necessary.			
3. Looseness on piston and shoe Hold the shoe on the surface plate with jigs and pull out the piston upwards to measure looseness δ of the piston and shoe.	Table 5. Items and what to be inspected	Standard dimensions	Allowable values	Remedy
	Looseness of the crimping area of piston and shoe	0 to 0.0039 in	0.011 in	Replace piston

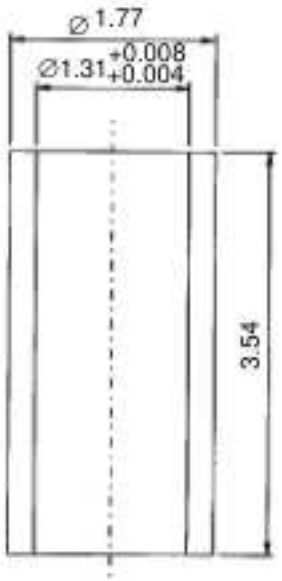


Measurement

CS02B536


Looseness of crimping area

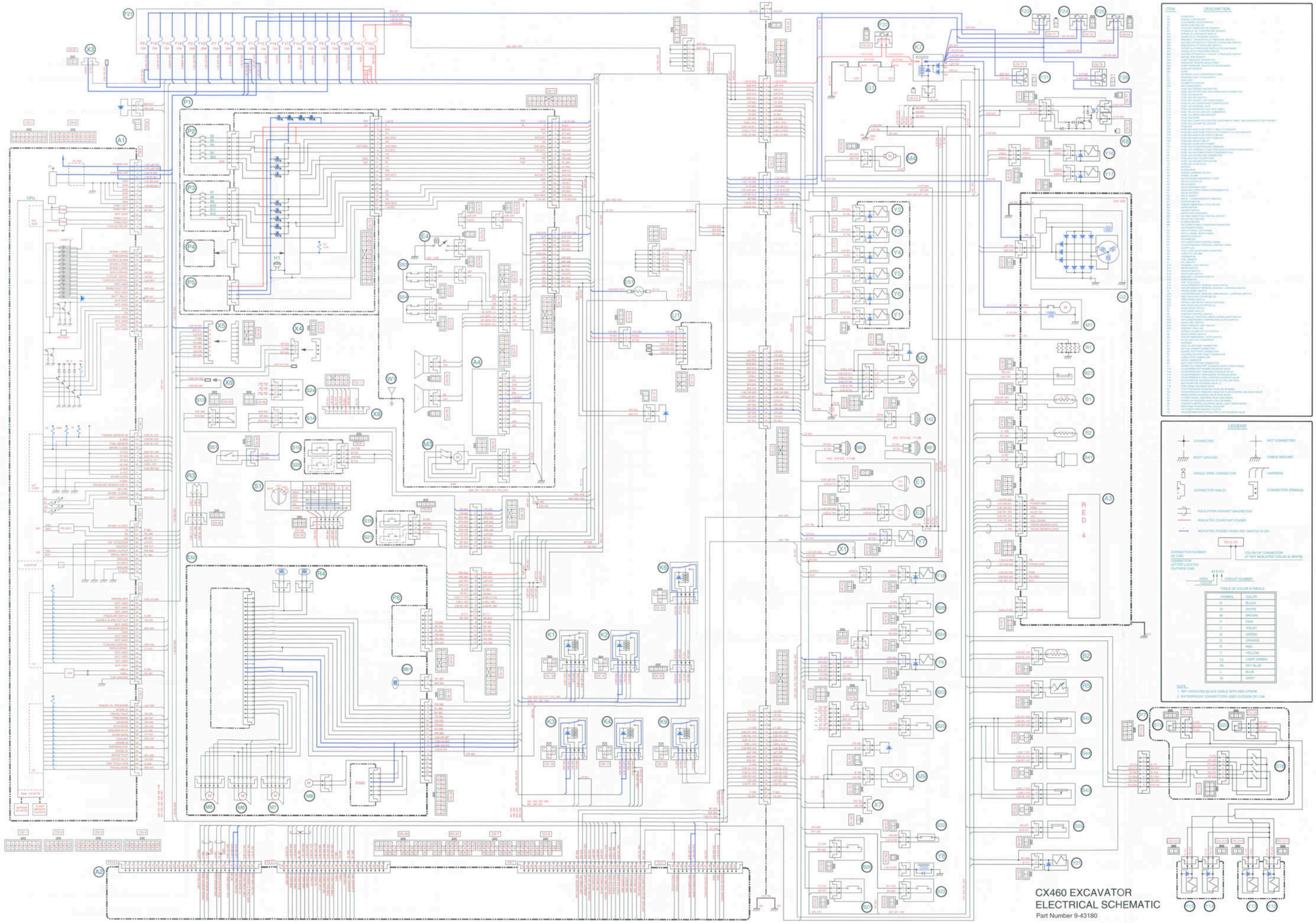
CS02B537



Jigs

CS02B538

MidWestTech | Case CX460 Crawler Excavator Service Manual | Publication 9-53601 Order the manual at mid-west-tech.com >



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