CX50B

Compact Hydraulic Excavator

PIN number PJ06 - and higher

OPERATOR'S MANUAL

Part number S2PJ00046ZE01
1st edition English
July 2010

CASE CONSTRUCTION

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

GENERAL INFORMATION
- To the Owner 1-1
- Right, Left, Front, and Rear of the Machine 1-2
- Machine Components 1-3
- Identification Numbers 1-4

CHAPTER 2
SAFETY, DECALS, AND HAND SIGNALS
- Table of Contents 2-1
- Safety Rules 2-3
- Operator Precautions 2-5
- Decals 2-10
- Hand Signals 2-26

CHAPTER 3
INSTRUMENTS AND CONTROLS
- Table of Contents 3-1
- Operator Cab and Operator Seat 3-3
- Machine Access Compartments and Doors 3-7
- Operator's Compartment Controls and Accessories 3-8

CHAPTER 4
OPERATING INSTRUCTIONS
- Table of Contents 4-1
- Before Operating the Machine 4-3
- Operating the Machine 4-3
- Starting and Stopping Machine Engine 4-4
- Starting and Stopping Machine Engine in Cold Climates 4-5
- Control Decal 4-8
- Basic Operation of Hydraulic Controls 4-9
- Practices to Improve Efficiency 4-16
- Transportation 4-20
- Machine Storage 4-25
- Optional Equipment 4-26
- Hydraulic Breaker 4-26
- Angle Dozer 4-34

CHAPTER 5
LUBRICATION, FILTERS, AND FLUIDS
- Table of Contents 5-1
- Fluids and Filters 5-3
- Lubricant Specifications 5-5
- Use of Bio-Degradable Oils 5-7

CHAPTER 6
MAINTENANCE AND ADJUSTMENTS
- Table of Contents 6-1
- General Information 6-3
- General Safety 6-4
- Releasing Pressure in the Hydraulic System 6-7
- Lubrication and Maintenance Quick Reference Chart 6-9
- Daily Inspection and Maintenance 6-11
- 50 hour maintenance: 6-19
- 250 Hour Maintenance 6-27
- 500 Hour Maintenance 6-33

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >

1000 Hour Maintenance 6-37
1500 Hour Maintenance 6-41
2000 Hour Maintenance 6-42
5000 Hour Maintenance 6-51
Special Procedures 6-52

CHAPTER 7
ELECTRICAL
Table of Contents 7-1

CHAPTER 8
SPECIFICATIONS
Table of Contents 8-1
General Specifications 8-3
Lifting Capacities 8-10
Torque Specifications 8-11

CHAPTER 9
INDEX

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >

CHAPTER 2

SAFETY, DECALS, AND HAND SIGNALS

TABLE OF CONTENTS

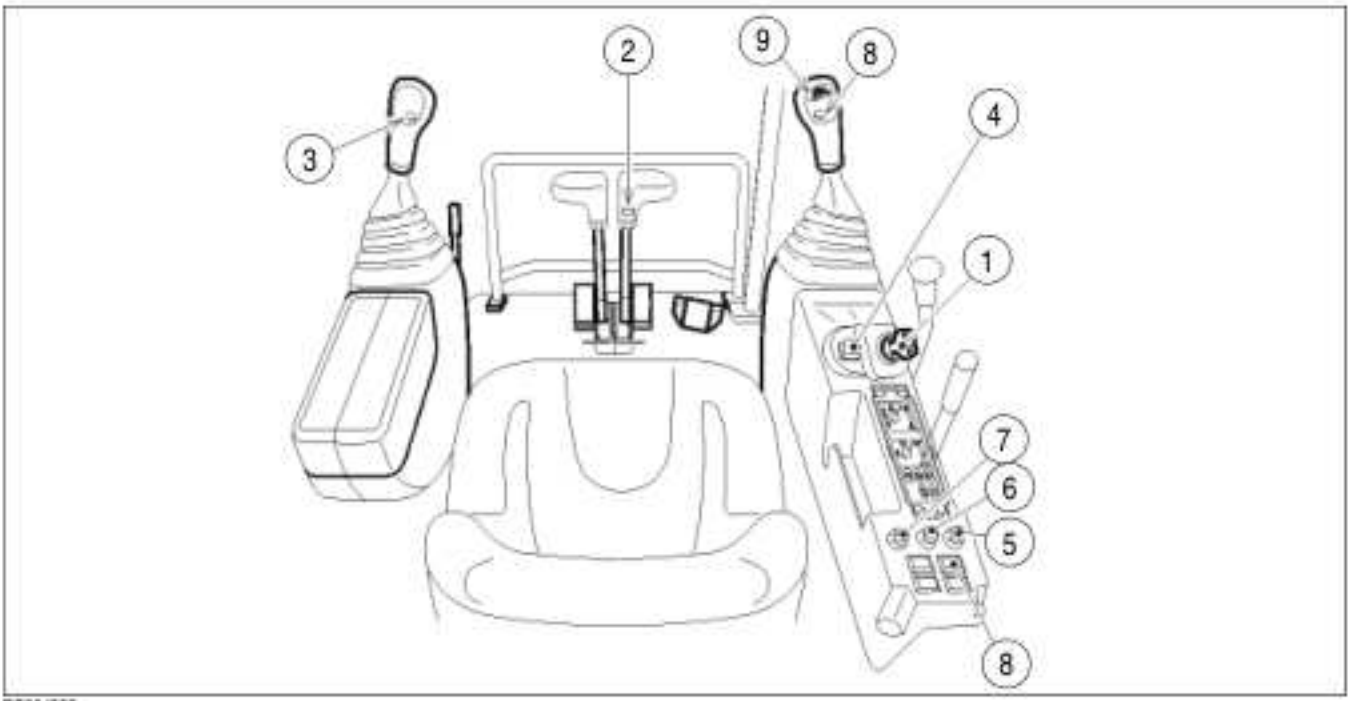
SAFETY RULES . . . 2-3
- Personal Safety . . . 2-3
- Safety Area . . . 2-3
- Utility Safety . . . 2-4

OPERATOR PRECAUTIONS . . . 2-5
- Personnel . . . 2-5
- General . . . 2-5
- Mounting and Dismounting Precautions . . . 2-5
- Starting and Stopping Precautions . . . 2-5
- Operating Precautions . . . 2-6
- Maintenance Precautions . . . 2-7
- Fuel Handling Precautions . . . 2-8
- Burn Prevention . . . 2-8
- Hazardous Chemical Precautions . . . 2-8
- Transporting Precautions . . . 2-8
- Roll-Over Protective Structure (If equipped) . . . 2-8
- Fire Extinguisher . . . 2-8
- Fire Prevention . . . 2-8
- Seat Belt Precautions . . . 2-9
- Emergency Exit Hammer . . . 2-9
- Specific Precautions to this Machine . . . 2-9

DECALS . . . 2-10
- Boom and Arm Movement - Caution . . . 2-11
- Hydraulic Oil - Warning . . . 2-11
- Safety Controls - Warning . . . 2-12
- Hot Surfaces - Caution . . . 2-12
- Pressurized Fluids and Lubricants - Warning . . . 2-13
- Engine Stop - Caution . . . 2-13
- Counterweight Swing Area - Danger . . . 2-14
- Engine Stop - Warning . . . 2-14
- Booster Cable - Warning . . . 2-15
- Track Tension Adjuster - Warning . . . 2-15
- Keep Clear of Working Area - Danger . . . 2-16
- Battery - Danger . . . 2-17
- Selector Valve - Caution . . . 2-18
- Safety Lock Lever - Warning . . . 2-18
- Seat Belt - Warning . . . 2-19
- Window Lock - Caution . . . 2-19
- Falling Front Window - Caution . . . 2-20
- Hydraulic Oil Check Position - Notice . . . 2-21
- Cap and Key Cover - Caution . . . 2-21
- Stop Engine - Danger . . . 2-22
- Confirm Attachment Movement- Warning . . . 2-22
- Do Not Operate This Machine- Warning . . . 2-23
- California Proposition 65 - Warning . . . 2-23
- California Proposition 65 - Warning . . . 2-24

HAND SIGNALS . . . 2-25
- Raise Load Vertically . . . 2-25
- Lower Load Vertically . . . 2-25
- Move Load In Horizontally . . . 2-25
- Move Load Out Horizontally . . . 2-25

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >



BS08J525

SWITCHES

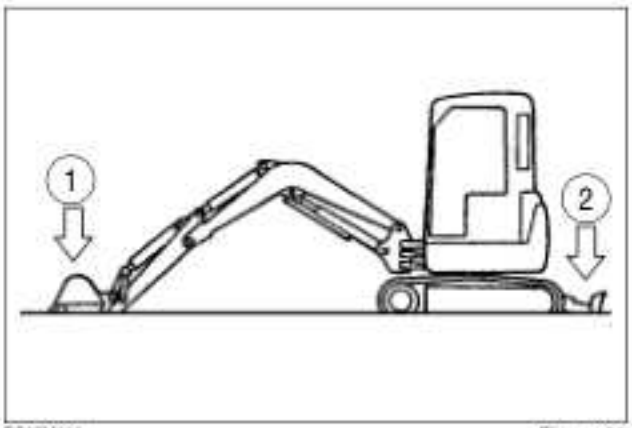
1. Ignition switch
2. Travel speed select switch
3. Horn switch
4. Deceleration selector switch
5. Work lamp switch
6. Heater switch
7. Wiper and washer switch
8. Breaker operating switch
9. Option switch (Nibbler and Breaker)

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >

PILOT VALVE AND SOLENOID VALVE

Clean the pilot valve filter and solenoid filter when the hour meter registers 2000 hours and every 2000 hours thereafter.

The P port of right and left pilot valves (for operation and travel) and the solenoid valve are equipped with a connector with a filter. Dirt that adheres on the filter will decrease oil flow.



BS07M861 Figure 85

1. Park the machine on a firm, level surface with both attachments resting on the ground. Turn the engine off. Keep all unauthorized personnel clear of the area.

⚠ WARNING ⚠

Hydraulic fluid is under extreme pressure. Make certain all pressure is released in the hydraulic system. Failure to comply could result in death or serious injury.

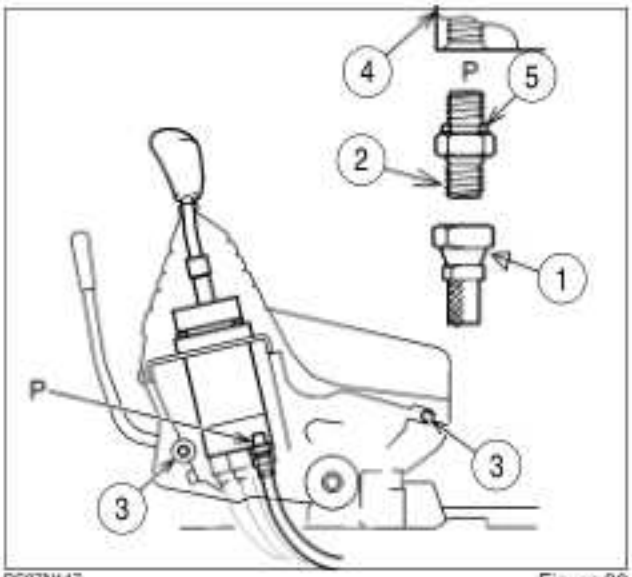
M1295

⚠ WARNING ⚠

Hot oil and/or components can burn. Oil must be at operating temperature when draining. Avoid contact with oil or components. Failure to comply could result in death or serious injury.

M623

2. Release all pressure to the hydraulic system.



BS07N147 Figure 86

3. Loosen 2 bolts (3) on the operating box to remove the cover.
4. Disconnect the hose (1) connected to P port on the pilot valve (4), then remove connector with filter (2).
5. After removal, put a plug into the bore to prevent entry of foreign matter.
6. Wear face protection, wash the filter with cleaning solvent. Use compressed air to remove any material.

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >

CRAWLER TYPE

Type	Width mm (inch)	Length between center of idler and center of travel motor mm (ft - in)	Ground Pressure kPa (psi) Canopy - Cab	
Rubber Belt	400 mm (15.7 in)	1970 mm (78 inch)	26 (3.8)	27 (3.9)
Steel Belt	400 mm (15.7 in)	1700 mm (78 inch)	27 (3.9)	27 (3.9)

BUCKET TYPE

Bucket	Heaped Capacity m^3 (cubic yard)	Outer Width with side cutter	Outer Width without side cutter	Number of teeth	Weight Kg (lbs.)
	0.16 (0.209)	650 mm (25.6 in.)	600 mm (23.6 in.)	4	112 (245)

MACHINE WEIGHTS

Rubber Crawler Belt		Steel Crawler Belt	
Canopy	Cab	Canopy	Cab
4660 kg (10280 lb)	4800 kg (10580 lb)	4760 kg (10500 lb)	4900 kg (10800 lb)

* With 165 lb (75 kg) operator, 137 lb (62 kg) bucket, full fuel and standard equipment

Boom with Arm Cylinder	
L x H x W	2910 X 1040 X 310 mm (9 ft 6 in x 3 ft 5 in x 12 ft 2 in)
Weight	240 kg (530 lbs)

Arm and standard bucket	
L x H x W - Arm 1.50 m (5 ft 1 in) Bucket 0.16 m^3 (.209 yd^3)	2770 X 510 X 650 mm (9 ft 1 in x 20 in x 26 in)
Weight	295 kg (650 lbs)
L x H x W - Arm 1.87 m (6 ft 2 in) Bucket 0.16 m^3 (.209 yd^3)	3080 X 510 X 650 mm (10 ft 1 in x 20 in x 26 in)
Weight	320 kg (705 lbs)
Arm	
L x H x W - Arm 1.56 m (5 ft 1 in)	2010 X 420 X 250 mm (6 ft 7 in x 16.5 in x 9.8 in)
Weight	180 kg (395 lbs)
L x H x W - Arm 1.87 m (6 ft 2 in)	2320 X 440 X 250 mm (7 ft 4 in x 17.3 in x 9.8 in)
Weight	205 kg (450 lbs)

Dozer	
L x H x W	1190 X 320 X 1960 mm (3 ft 11 in x 12.6 in x 6 ft 5 in)
Weight	175 kg (385 lbs)

MidWestTech | Case CX50B Compact Hydraulic Excavator Operator's Manual | Publication... Order the manual at mid-west-tech.com >