CASE

PROFESSIONAL PARTNER

OPERATOR'S MANUAL

CRAWLER EXCAVATOR

CX31B, CX36B

87458478

Issued 10-2004

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87...

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

TABLE OF CONTENTS

CHAPTER 1
GENERAL INFORMATION
To the Owner 1-1
Identification Numbers 1-3

CHAPTER 2
SAFETY, DECALS, AND HAND SIGNALS
Table of Contents 2-1
Safety Rules 2-3
Personal Safety 2-3
Safety Area 2-3
Utility Safety 2-4
Operator Precautions 2-4
Decals 2-9

CHAPTER 3
INSTRUMENTS AND CONTROLS
Table of Contents 3-1
Cab (If Equipped) 3-3
Steps and Access Handles 3-5
Operator's Compartment Controls and Accessories 3-6
Instrument Panel 3-7
Switches 3-10
Control Levers 3-12
Access Covers and guards 3-15
Operator's Seat Adjustment 3-16
Seat Belt 3-16

CHAPTER 4
OPERATING INSTRUCTIONS
Table of Contents 4-1
Before Operating the Machine 4-3
Operating the Machine 4-3
Run-In Period 4-4
Starting the engine 4-4
Bringing the Machine Up To Operating Temperature 4-6
Engine Operation 4-7
Stopping the Engine 4-7
Operating the Machine in Cold Weather 4-8
Operating the Machine in Hot Weather 4-8
Operation 4-8
Machine Travel 4-9
Transporting the Machine 4-10
Operating the Machine in Water 4-13
Parking the Machine 4-14
Operating the Machine on Sloping Ground 4-14
Moving A Disabled Machine 4-14
Lowering the Attachment in the Event of a Machine Failure 4-14
Operating the Bucket 4-15
Machine Storage 4-16

CHAPTER 5
LUBRICATION, FILTERS, AND FLUIDS
Table of Contents 5-1
Servicing Instructions 5-3

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >

Chapter 2
SAFETY, AND DECALS
TABLE OF CONTENTS

SAFETY RULES 2-3
PERSONAL SAFETY 2-3
SAFETY AREA 2-3
UTILITY SAFETY 2-4
OPERATOR PRECAUTIONS 2-4
- Personnel 2-4
- General 2-4
- Mounting and Dismounting Precautions 2-5
- Starting and Stopping Precautions 2-5
- Operating Precautions 2-5
- Maintenance Precautions 2-6
- Fuel Handling Precautions 2-7
- Burn Prevention 2-7
- Hazardous Chemical Precautions 2-8
- Transporting Precautions 2-8
- Roll-Over Protective Structure 2-8
- Fire Extinguisher 2-8
- Seat Belt Precautions 2-8
- Specific Precautions to this Machine 2-9

DECALS 2-10

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >

Chapter 3

INSTRUMENTS AND CONTROLS

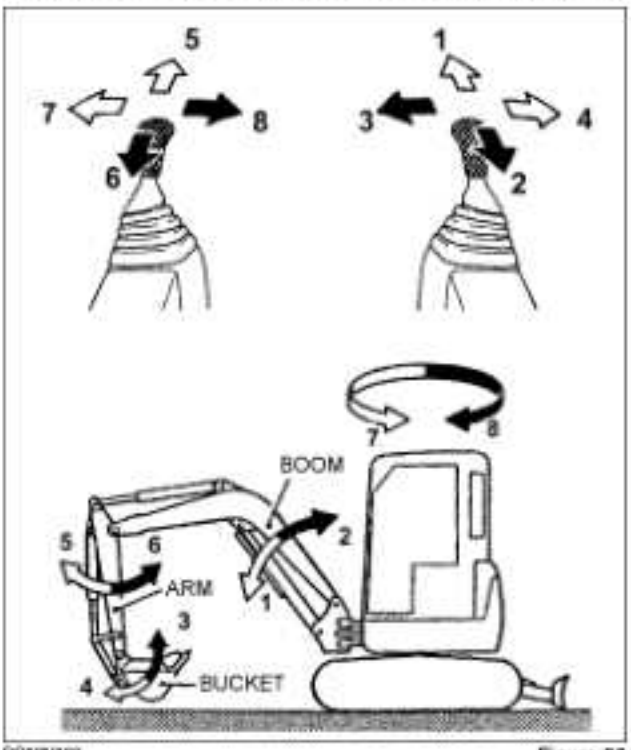
TABLE OF CONTENTS

CAB (IF EQUIPPED) 3-3
Cab Door 3-3
Windshield 3-3
Front Windshield (Lower) 3-4
Window (Right-Hand Side) 3-4
Cab Lamp 3-4
Windshield Washer Fluid reservoir 3-4
STEPS AND ACCESS HANDLES 3-5
OPERATOR'S COMPARTMENT CONTROLS AND ACCESSORIES 3-6
INSTRUMENT PANEL 3-7
SWITCHES 3-9
CONTROL LEVERS 3-11
ACCESS COVERS AND GUARDS 3-14
Opening 3-14
Locking 3-14
OPERATOR'S SEAT ADJUSTMENT 3-15
SEAT BELT 3-15
Fastening and Unfastening 3-15

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >

2. LEFT-HAND CONTROL LEVER (SAE Pattern)

3. RIGHT-HAND CONTROL LEVER (SAE Pattern)



BC02N066 Figure 36

1. BOOM DOWN (RIGHT-HAND CONTROL LEVER)
2. BOOM UP (RIGHT-HAND CONTROL LEVER)
3. BUCKET IN (RIGHT-HAND CONTROL LEVER)
4. BUCKET OUT (RIGHT-HAND CONTROL LEVER)
5. ARM OUT (LEFT-HAND CONTROL LEVER)
6. ARM IN (LEFT-HAND CONTROL LEVER)
7. ROTATION LEFT (LEFT-HAND CONTROL LEVER)
8. ROTATION RIGHT (LEFT-HAND CONTROL LEVER)

These two levers activate each operation shown in the illustration.

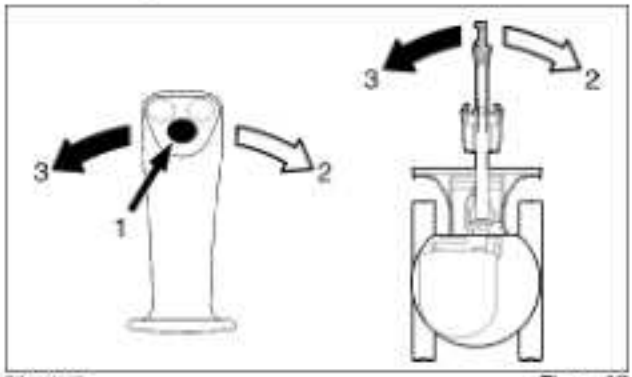
All functions can be activated simultaneously.

The operator's control levers return to the neutral position when released, and the operation of attachment is stopped.

WARNING: *Confirm for safety around the working area. Also ensure that each lever operation is in accordance with the operating pattern indicated on the labels.*
If labels do not match the operator's control pattern, replace them immediately to avoid accidents and/or injury.

CE-NA000

Boom Swing Function Switch



BC02N067 Figure 37

1. BOOM SWING/REMOTE CONTROL SWITCH
2. RIGHT-HAND SWING
3. LEFT-HAND SWING

Operate the control lever right and left keeping the switch on the grip of the left-hand control lever pressed, and the boom swings right and left

1. Switch . . . . . Pressed (ON)
2. Operate lever right . . . . . Right-hand boom swing
3. Operate lever left . . . . . Left-hand boom swing

IMPORTANT: *The swing operation does not stop even if the switch is turned off during the swing operation. To switch from boom swing to upperstructure swing the left control lever must return to the neutral position.*

WARNING: *Because the boom swing operating range is wide, carefully operate the attachment paying attention to the surrounding conditions.*

CE-NA000

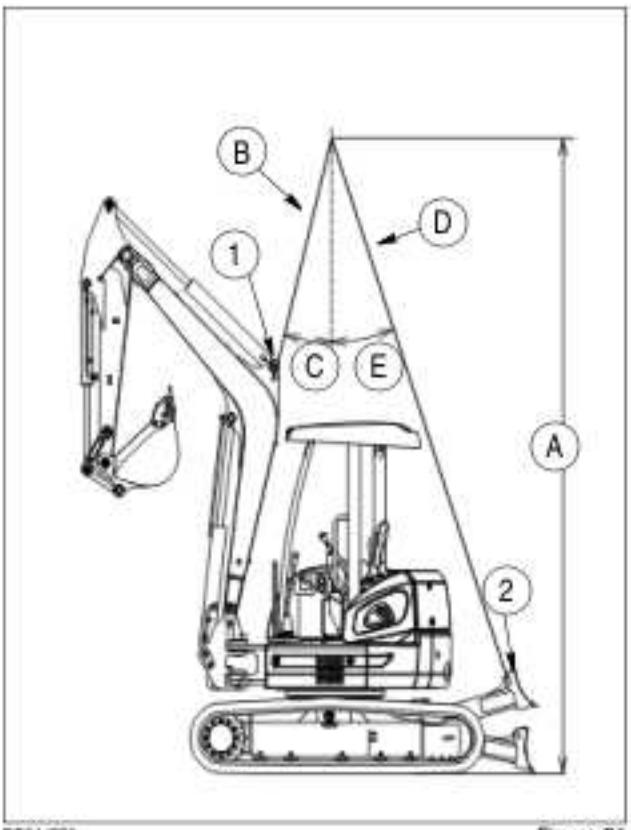
MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >

IMPORTANT: *The cables (wire ropes) to be used for lifting the machine should have sufficient capacity for the machine weight.*

IMPORTANT: *Do not impose a load suddenly on the cables (wire ropes) and shackles.*

IMPORTANT: *When the lifting work is carried out in cooperation with other persons, make sure to check every situations with exchanging signals with each other.*

IMPORTANT: *During the lifting work, keep all persons away from around the lifting machine, especially under the machine.*



BS04J058 Figure 31

A. 4 700 MM (185 IN)
B. 2 000 MM (78.7 IN). ONE CABLE
C. 20 DEGREES
D. 4 200 MM (165.4 IN). TWO CABLES, ONE EACH SIDE
E. 20 DEGREES
1. CONNECT 1 CABLE SHACKLE HERE
2. CONNECT 2 CABLE SHACKLES HERE. 1 EACH SIDE OF BLADE

CX36B - APPROXIMATE WEIGHT WITH RUBBER SHOE: 3 610 KG (7 960 LBS).
APPROXIMATE WEIGHT WITH IRON SHOE: 3 730 KG (8 220 LBS).
CX31B - APPROXIMATE WEIGHT WITH RUBBER SHOE: 3 030 KG (6 680 LBS).
APPROXIMATE WEIGHT WITH IRON SHOE: 3 140 KG (6 920 LBS).

NOTE: *see chapter 8 (specifications) for additional weight information.*

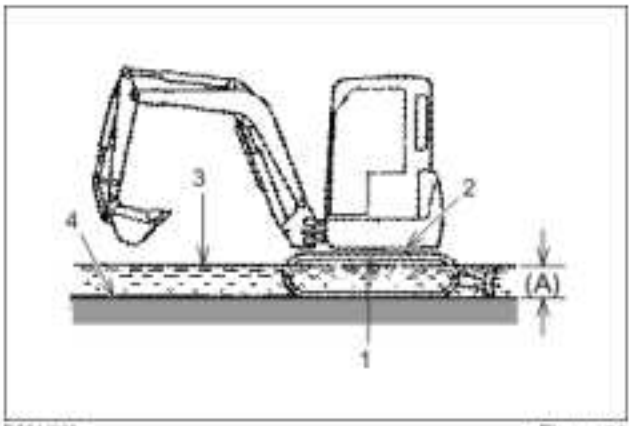
1. Put the machine and boom in the position shown.
2. Shut down the engine, remove the starter switch key, raise the function cancellation lever.
3. Make sure that the control function cancellation lever is in the raised position (Locked).
4. Make sure all control levers are set in the NEUTRAL position.
5. Make sure that all doors, hoods, and access panels are correctly locked.
6. Install a shackle to the boom (1). Connect the cable (wire rope) the shackle.
7. Install shackles at the two positions (2) provided at each end of the dozer blade. Connect the cables (wire ropes) to the shackles.
8. If any of the cables (wire ropes) contact the machine when the cables (wire ropes) are in position, use wood blocks and soft material to protect the machine from damage.
9. Slightly lift the machine to confirm the balance, then lift up the machine.

OPERATING THE MACHINE IN WATER

1. Make sure that the bottom of the stream, or water in which you will work, can support the weight of the machine.
2. Only the undercarriage up to the upper roller can be below water level.

   IMPORTANT: *Never work in water if the water level is higher than the upper roller.*

   IMPORTANT: *Do not operate in a fast flowing stream.*
3. Before using the machine in water, inject large quantities of fresh grease into the attachment linkages and the dozer blade (if equipped), also on the turntable and its gear teeth.

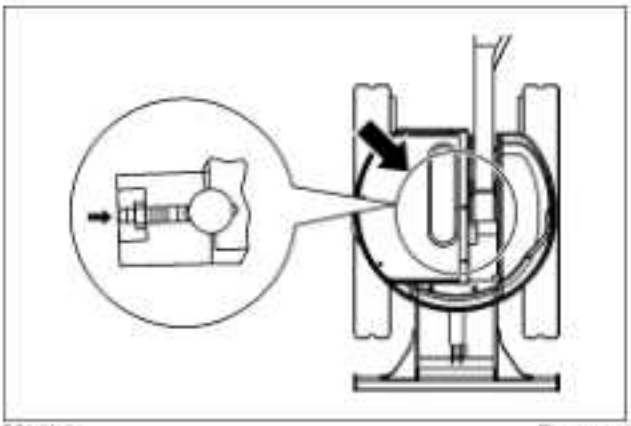


BS04J062 Figure 32

A. MAXIMUM WATER DEPTH

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >

Lubricating the Turntable (Swing) Bearing



BC02N256 Figure 13

1. Apply grease at the grease fitting until the old grease is replaced.
2. Rotate the upper structure 90°. (4 times).
3. Repeat steps 1 and 2 until all four positions are lubricated.

IMPORTANT: *If the grease is white because of moisture content or contamination, replace with new grease.*

LUBRICATION - 2000 HOURS

LUBRICATING THE TURNTABLE (SWING) GEAR

Contact your dealer for procedures. Change the grease immediately if the machine has been immersed in water in order to protect the pinion and internal gears from damage.

MidWestTech | Case CX31B, CX36B Crawler Excavator Operator's Manual | Publication 87... Order the manual at mid-west-tech.com >