CX31 and CX36 MINI-EXCAVATOR

Operator's Manual

Bur 6-37920NA

CASE

MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920

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

TABLE OF CONTENTS

Safety Precautions ..... Section 1

Machine Familiarization ..... Section 2

Basic Machine Operation ..... Section 3

Maintenance ..... Section 4

Transportation ..... Section 5

Specifications ..... Section 6

Troubleshooting ..... Section 7

Optional Equipment ..... Section 8

Specifications (EPA Engine) ..... Section 9

MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >

SECTION 1

SAFETY PRECAUTIONS

TABLE OF CONTENTS

1.1 GENERAL SAFETY INFORMATION 1-2
1.2 SAFETY PRECAUTIONS 1-3
1.3 PRE-START SAFETY 1-5
1.4 SAFETY DURING OPERATION 1-11
1.5 INSPECTION & MAINTENANCE SAFETY 1-19
1.6 BATTERY SAFETY 1-26
1.7 WARNING LABELS & DECALS 1-27
1.8 PROHIBITED MACHINE OPERATION 1-34
1.9 END OF WORK SHIFT SAFETY 1-36
1.10 PRECAUTIONS FOR TRANSPORTATION 1-37
1.11 TOWING THE MACHINE 1-38

WARNING

Read, understand and follow all safety precautions and procedures found in this manual before attempting any operation, inspection or maintenance of this machine, attachment or systems. CASE cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are therefore not all inclusive. If a tool, procedure, work method or operating technique not specifically recommended by CASE is used, you must satisfy yourself that it is safe for you and others. You should also ensure that the product will not be damaged or made unsafe by the operation, lubrication, maintenance and/or repair procedures you choose.

MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >

SECTION 2

MACHINE FAMILIARIZATION

TABLE OF CONTENTS

2.1 FAMILIARIZATION 2-2

2.2 GENERAL MACHINE NOMENCLATURE 2-2

2.3 OPERATOR CAB NOMENCLATURE 2-3

2.4 COMPONENT & CONTROLS NOMENCLATURE 2-4

A. Monitor Panel (Gauge Cluster) 2-4

A.1 Meters 2-4

A.1.a Coolant Temperature MeteR 2-4

A.1.b Fuel Meter 2-4

A.1.c Hour Meter 2-4

A.2 WARNING LAMPS 2-5

A.2.a Battery Charge Lamp (Red) 2-5

A.2.b Engine Oil Pressure Lamp (Red) 2-5

A.2.c Coolant Temperature Lamp (Red) 2-5

A.2.d Low Fuel Warning Lamp (Red) 2-5

A.3 Indicator Lamps 2-5

A.3.a High (2nd) Travel Speed Lamp (Yellow). 2-5

B. Switches 2-6

B.1 Starter Switch 2-6

B.2 Travel Speed Select Switch 2-6

B.3 Horn Switch 2-6

B.4 Deceleration Selector Switch (Option) 2-7

B.5 Working Light Switch 2-7

B.6 Cab Heater Switch (Canopy Option) 2-7

B.7 Wiper Switch 2-7

C. Levers and Pedals 2-8

C.1 Safety Lock Lever 2-8

C.2 Operating Levers (ISO Operating Pattern) 2-9

C.3 Travel Control Levers 2-9

C.4 Throttle Lever 2-10

C.5 Dozer Operating Lever 2-10

C.6 Boom Swing Operating Pedal 2-11

C.7 Nibbler & Breaker Operating Pedal 2-11

D. Guard with Locking Device & Covers 2-12

E. Seat Front to Back Adjustment 2-12

F. Electrical Equipment 2-13

F.1 Working Light Switch 2-13

F.2 Fuse Box (Main) 2-13

2.5 STORAGE & OTHERS 2-14

A. Storing Place for Manual 2-14

B. Tools 2-14

C. Grease Gun 2-14

2.6 SEAT BELT 2-15

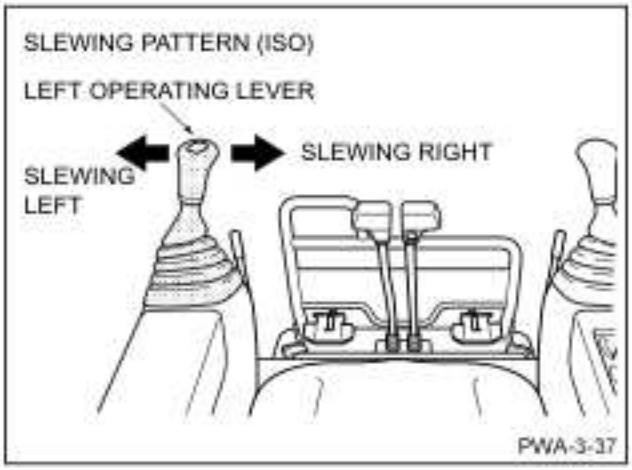
2.7 CAB 2-16

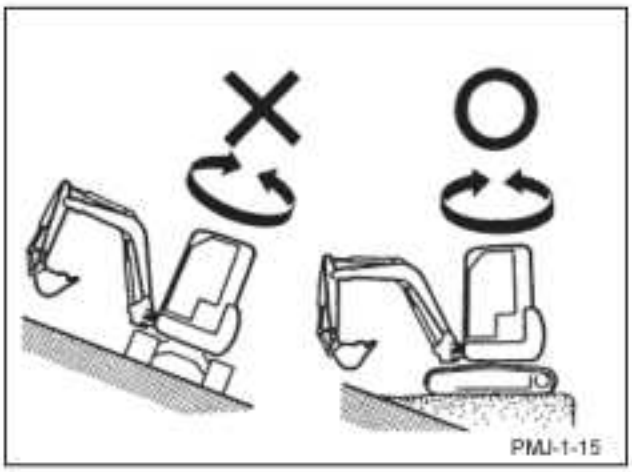
MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >

G. SLEWING OPERATION

WARNING

- OPERATION OF THIS MACHINE ON AN INCLINE OR SLOPE MAY CAUSE THE MACHINE TO BECOME UNSTABLE OR UNBALANCED.
- MAKE CERTAIN THE SLEWING AREA OF THE MACHINE IS CLEAR OF PEOPLE AND OBSTACLES BEFORE SLEWING.
- WORK UP AND DOWN INCLINES OR SLOPES, NEVER ACROSS.
- NEVER SLEWING OR TURN MACHINE AROUND ON SLOPES.
- OPERATE CONTROL LEVERS CAREFULLY TO PREVENT SUDDEN MOVEMENTS WHICH MAY CAUSE THE MACHINE TO SLIDE OR TIP OVER.
- BUILD A LEVEL AREA FOR THE MACHINE TO OPERATE.
- USE A FLAGMAN TO GUIDE THE OPERATOR.





MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >

INSPECTION MAINTENANCE CHECK LIST

Machine Model: Serial NO.: Machine Hours:

ITEM	OK	MAINT. PERFORMED
ENGINE OIL LEVEL		
ENGINE COOLANT LEVEL		
CHECK FOR FLUID LEAKS		
CHECK BELT TENSION		
CHECK FUEL LEVEL		
DRAIN WATER SEPARATOR		
CHECK AIR CLEANER		
CHECK ENGINE ELECTRICAL		
DRAIN WATER FROM FUEL		
CHANGE ENGINE OIL		
CHANGE OIL FILTER		
CHANGE FUEL FILTER		
CHANGE WATER SEPARATOR		
CHECK AIR INTAKE INDICATOR		
CHECK FAN ASSEMBLY		
CHECK BELT TENSIONER		
CLEAN RADIATOR		
CHANGE ENGINE COOLANT		
AIR CLEANER ELEMENTS		
ADJUST VALVE CLEARANCE		
HYDRAULIC OIL LEVEL		
CHECK HYD FUNCTIONS		
CHECK FOR OIL LEAKS		
CHECK HOSES/PIPINGS		
CLEAN SUCTION SCREEN		
CHANGE RETURN FILTER		
PILOT MANIFOLD FILTER		
CHANGE HYDRAULIC OIL		
CLEAN HYDRAULIC TANK		
INSPECT ALL WIRING		
BATTERY ELECTROLYTE		
BATTERY SERVICE		
HYD. FUNCTION OPERATION		
CHECK SWITCHES		
CHECK WARNING LIGHTS		
CHECK HORN		
CHECK DISPLAY MONITOR		

ITEM	OK	MAINT. PERFORMED
SLEWING REDUCTION OIL		
SLEWING RING GEAR		
GREASE BATH LEVEL		
SLEWING RING PINION		
SLEWING RING SEAL		
SWIVEL JOINT SEALS		
DRAIN WATER FROM BATH		
GREASE SLEWING RING		
CHANGE GREASE BATH		
CHECK BOLTS/HARDWARE		
CHECK LINES FOR DAMAGE		
CHECK STEPS		
CHECK FRAME STRUCTURE		
CHECK CRAWLERS		
CHECK SPROCKET WEAR		
CHECK IDLER WEAR		
CHECK ROLLER WEAR		
CHECK CRAWLER TENSION		
ADJUST CRAWLER TENSION		
TRAVEL REDUCTION		
CHECK BOOM & ARM		
BUCKET TEETH		
SIDE CUTTERS		
GREASE BOOM PINS		
GREASE ARM PINS		
GREASE BUCKET PINS		
GREASE SWING PIN		
GREASE DOZER PIN		
CHECK COOLANT ADDITIVE		
CHECK CRAWLER SHOE		

These item include non-equipped parts by the machine specification.

MECHANIC :

SIGNATURE : DATE :

MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >

H. CRAWLER SHOE

TYPE	MODEL	SHOE WIDTH mm (in)	TOTAL CRAWLER WIDTH mm (ft-in)	GROUND PRESSURE kgf/cm² (psi)	
				CANOPY	CAB
Rubber shoe 	CX31	300 (11.8")	1,550 (5' 1.0")	0.29 (4.1)	0.31 (4.4)
	CX36	300 (11.8")	1,700 (5' 6.9")	0.31 (4.4)	0.32 (4.6)
Iron shoe (Option) 	CX31	300 (11.8")	1,550 (5' 1.0")	0.31 (4.4)	0.32 (4.6)
	CX36	300 (11.8")	1,700 (5' 6.9")	0.33 (4.7)	0.34 (4.9)

MidWestTech | Case CX31, CX36 Mini Excavator Operator's Manual | Publication 6-37920 Order the manual at mid-west-tech.com >