CEAM014401

Operation & Maintenance Manual

PC200LL-7L
PC220LL-7L

HYDRAULIC EXCAVATOR

SERIAL NUMBERS	PC200LL-7L A86001 and up PC220LL-7L A86001 and up
ENGINE	6D102E-2

March 2016

KOMATSU®

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

INTRODUCTION

FOREWORD 0-2
SAFETY INFORMATION 0-3
SIGNAL WORDS 0-3
OTHER SIGNAL WORDS 0-3
INTRODUCTION 0-4
INTENDED USE 0-4
DIRECTIONS OF MACHINE 0-4
BREAKING IN THE MACHINE 0-4
PRODUCT INFORMATION 0-5
MACHINE SERIAL NUMBER PLATE AND ITS LOCATION 0-5
ENGINE SERIAL NUMBER PLATE AND ITS LOCATION 0-5
SERVICE METER LOCATION 0-6
YOUR MACHINE SERIAL NUMBERS AND DISTRIBUTOR 0-6
TABLE OF CONTENTS 0-7

SAFETY

SAFETY LABELS 1-2
POSITION FOR ATTACHING SAFETY LABELS 1-2
UNIQUE SAFETY DECALS FOR LOG LOADER AND ROAD BUILDER EXCAVATORS . 1-8
SAFETY INFORMATION 1-14
SAFETY RULES 1-14
IF ABNORMALITIES ARE FOUND 1-14
WORKING WEAR AND PERSONAL PROTECTIVE ITEMS 1-14
FIRE EXTINGUISHER AND FIRST AID KIT 1-14
SAFETY EQUIPMENT 1-14
KEEP MACHINE CLEAN 1-15
KEEP OPERATOR'S COMPARTMENT CLEAN 1-15
LEAVING OPERATOR'S SEAT WITH LOCK 1-15
HANDRAILS AND STEPS 1-16
MOUNTING AND DISMOUNTING 1-16
NO PERSONS ON ATTACHMENTS 1-16
BURN PREVENTION 1-17
HOT COOLANT 1-17
HOT OIL 1-17
FIRE PREVENTION AND EXPLOSION PREVENTION 1-17
FIRE CAUSED BY FUEL OR OIL 1-17
FIRE CAUSED BY ACCUMULATION OF FLAMMABLE MATERIAL. 1-18
FIRE COMING FROM ELECTRIC WIRING 1-18
FIRE COMING FROM HYDRAULIC LINE 1-18
EXPLOSION CAUSED BY LIGHTING EQUIPMENT 1-18
ACTION IF FIRE OCCURS 1-18
WINDSHIELD WASHER FLUID 1-18
FALLING OBJECTS, FLYING OBJECTS AND INTRUDING OBJECTS PREVENTION ... 1-18
PROTECTION AGAINST FALLING OR FLYING OBJECTS 1-19

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

ATTACHMENT INSTALLATION 1-20
ATTACHMENT COMBINATIONS 1-20
CAB WIDOW GLASS 1-20
UNAUTHORIZED MODIFICATIONS 1-20
SAFETY AT JOBSITE 1-20
WORKING ON LOOSE GROUND 1-21
DISTANCE TO HIGH VOLTAGE CABLES 1-21
ENSURE GOOD VISIBILITY 1-22
VENTILATION FOR ENCLOSED AREA 1-22
SIGNALMAN'S SIGNAL AND SIGNS 1-22
EMERGENCY EXIT FROM OPERATOR'S CAB 1-22
ASBESTOS DUST HAZARD PREVENTION 1-23
SAFE MACHINE OPERATION 1-24
STARTING ENGINE 1-24
CHECKS BEFORE STARTING ENGINE 1-24
SAFETY RULES FOR STARTING ENGINE 1-24
STARTING ENGINE IN COLD WEATHER 1-24
OPERATION 1-25
CHECKS AFTER STARTING ENGINE, BEFORE OPERATION 1-25
SAFETY RULES FOR CHANGING MACHINE DIRECTIONS 1-25
SAFETY RULES FOR TRAVELING 1-26
TRAVELING ON SLOPES 1-26
OPERATIONS ON SLOPES 1-27
PROHIBITED OPERATIONS 1-27
OPERATIONS ON SNOW 1-28
PARKING MACHINE 1-29
TRANSPORTATION 1-30
SHIPPING THE MACHINE 1-30
BATTERY 1-31
BATTERY HAZARD PREVENTION 1-31
STARTING ENGINE WITH BOOSTER CABLES 1-32
TOWING 1-33
SAFETY RULES FOR TOWING 1-33
LIFTING OBJECTS WITH BUCKET 1-34
SAFETY RULES FOR LIFTING OBJECTS 1-34
SAFETY MAINTENANCE INFORMATION 1-35
WARNING TAG 1-35
KEEP WORK PLACE CLEAN AND TIDY 1-35
APPOINT LEADER WHEN WORKING WITH OTHERS 1-35
STOP ENGINE BEFORE CARRYING OUT MAINTENANCE 1-36
TWO WORKERS FOR MAINTENANCE WHEN ENGINE IS RUNNING 1-37
PROPER TOOLS 1-37
ACCUMULATOR 1-37
PERSONNEL 1-38
ATTACHMENTS 1-38
NOISE 1-38
WELDING 1-39
REMOVING BATTERY TERMINALS 1-39
DO NOT DISASSEMBLE RECOIL SPRINGS 1-40

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

SAFETY RULES FOR HIGH-PRESSURE OIL 1-40
SAFETY HANDLING HIGH-PRESSURE HOSES 1-40
WASTE MATERIALS 1-41
AIR CONDITIONER MAINTENANCE 1-41
COMPRESSED AIR 1-41
PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS 1-41

OPERATION

GENERAL VIEW 2-2
GENERAL VIEW OF LOG LOADER MACHINE 2-2
GENERAL VIEW OF ROAD BUILDER MACHINE 2-3
GENERAL VIEW CONTROLS AND GAUGES 2-4
EXPLANATION OF COMPONENTS 2-5
MACHINE MONITOR 2-5
BASIC OPERATION OF MACHINE MONITOR 2-6
IF THERE IS ABNORMALITY WHEN STARTING ENGINE 2-6
IF ANY ABNORMALITY OCCURS DURING OPERATION 2-7
BASIC CHECK ITEMS 2-8
RADIATOR WATER LEVEL MONITOR 2-8
ENGINE OIL LEVEL MONITOR 2-9
MAINTENANCE INTERVAL MONITOR 2-9
CAUTION ITEMS 2-10
CHARGE MONITOR 2-10
FUEL LEVEL MONITOR 2-11
AIR CLEANER CLOGGING MONITOR 2-11
ENGINE WATER TEMPERATURE MONITOR 2-11
EMERGENCY STOP ITEMS 2-12
ENGINE WATER TEMPERATURE MONITOR 2-12
HYDRAULIC OIL TEMPERATURE MONITOR 2-13
ENGINE OIL PRESSURE MONITOR 2-13
METER DISPLAY PORTION 2-14
PILOT DISPLAY 2-14
METERS 2-16
MONITOR SWITCHES 2-18
WORKING MODE SELECTOR SWITCH (BASIC SWITCH) 2-19
AUTO-DECELERATION SWITCH 2-20
TRAVEL SPEED SELECTOR SWITCH 2-21
WIPER SWITCH 2-22
WINDOW WASHER SWITCH 2-22
MAINTENANCE SWITCH 2-23
SELECT SWITCH 2-25
BACK SWITCH 2-26
UP SWITCH, DOWN SWITCH 2-26
INPUT CONFIRMATION SWITCH 2-26
LIQUID CRYSTAL MONITOR ADJUSTMENT SWITCH 2-27
SWITCHES 2-30
STARTING SWITCH 2-31
FUEL CONTROL DIAL 2-32

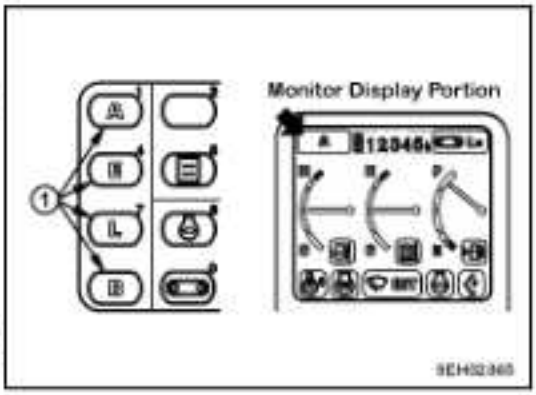
MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

WORKING MODE SELECTOR SWITCH (BASIC SWITCH)

This switch (1) is used to set the power and movement of the work equipment.

Operations can be carried out more easily by selecting the mode to match the type of operation.

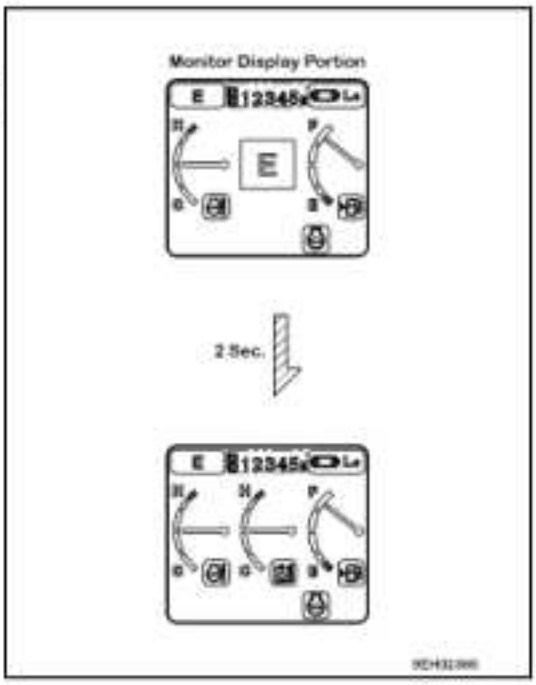
A mode : For heavy-load operations
E mode : For operations with emphasis on fuel economy
L mode : For fine-control operations
B mode : For breaker operations



- When the engine is started, the working mode is set automatically to A mode. When the switch is pressed, other modes are selectable. The display on the monitor display portion changes for each mode.
- If it is desired to have the working mode set to start automatically in E, L, or B mode (default options setting), please ask your Komatsu distributor to change the setting.

Remark

When the mode selector switch is pressed, the mode is displayed in the center of the monitor display, and the screen returns to the normal screen after 2 seconds. (The diagram on the right is an example of the display for the E mode.)



Notice

When using the breaker, do not use A mode. There is danger that the breaker may be damaged

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

EVERY 250 HOURS MAINTENANCE

LUBRICATION

See "LUBRICATION ROAD BUILDER MACHINE" on page 3-17.

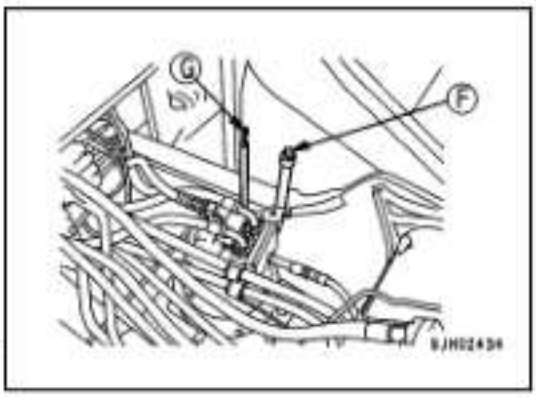
Remark

When operating the machine for the first 50 hours, perform the greasing every 10 hours. After digging in water, always grease the pins that were under water. When doing heavy duty operations, like hydraulic breaker grease every 100 hours.

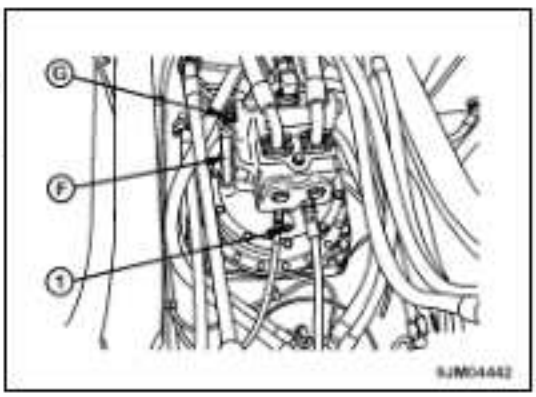
CHECK OIL LEVEL IN MACHINERY CASE, ADD OIL

⚠ WARNING

The parts and oil are at high temperature after the engine is stopped, and may cause serious burns. Wait for the temperature to go down before starting the operation.



1. Remove dipstick (G) and wipe the oil from the dipstick with a cloth.
2. Insert dipstick (G) fully in the guide.
3. When dipstick (G) is pulled out, if the oil level is between the H and L marks of the gauge, oil level is proper.



4. If the oil does not reach the L mark on dipstick (G), remove oil filler (F), and add engine oil.
5. If the oil level exceeds the H mark on the dipstick, loosen drain plug to drain the excess oil.
6. After checking oil level or adding oil, insert the dipstick into the hole and install oil filler cap.

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >

PC220LL-7L Road Builder

Arm: 3048 mm with thumb

Shoe: 700 mm Double Grouser

Bucket: 1.0 m³ (1.31 yd³)

(SAE heaped) Weight: 734 kg (1618 lb)

PC220LL-7L with 3048 mm arm **Unit: lb (kg)**

A	◊ MAX		25 ft (7.6 m)		20 ft (6.1 m)		15 ft (4.6 m)		10 ft (3.0 m)		5 ft (1.5 m)		0 ft (0.0 m)	
B	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
25 ft (7.6 m)	*6450 (2900)	*6450 (2900)			*9600 (4350)	*9600 (4350)								
20 ft (6.1 m)	*6200 (2800)	*6200 (2800)	*9100 (4100)	*9100 (4100)	*10350 (4700)	*10350 (4700)								
15 ft (4.6 m)	*6350 (2850)	*6350 (2850)	*11550 (5200)	*11550 (5200)	*12350 (5600)	*12350 (5600)	*14200 (6400)	*14200 (6400)						
10 ft (3.0 m)	*6800 (3100)	*6800 (3100)	*13000 (5850)	*13000 (5850)	*15150 (6850)	*15150 (6850)	*19850 (9000)	*19850 (9000)	*32200 (14600)	*32200 (14600)				
5 ft (1.5 m)	*7650 (3450)	*7650 (3450)	*14550 (6600)	14100 (6350)	*18000 (8150)	*18000 (8150)	*25100 (11350)	*25100 (11350)	*14700 (6650)	*14700 (6650)				
0 ft (0.0 m)	*9000 (4100)	*9000 (4100)	*15800 (7150)	13750 (6250)	*20100 (9100)	19350 (8750)	*28300 (12800)	*28300 (12800)	*19500 (8800)	*19500 (8800)				
-5 ft (-1.5 m)	*11450 (5200)	*11450 (5200)	*16250 (7350)	13650 (6200)	*21100 (9550)	19100 (8650)	*29300 (13300)	*29300 (13300)	*28600 (12950)	*28600 (12950)	*18200 (8250)	*18200 (8250)		
-10 ft (-3.0 m)	*16600 (7500)	*16600 (7500)			*20500 (9300)	19200 (8700)	*28300 (12800)	*28300 (12800)	*41800 (18950)	*41800 (18950)	*27850 (12650)	*27850 (12650)		
-15 ft (-4.6 m)	*18650 (8450)	*18650 (8450)					*24200 (10950)	*24200 (10950)	*35450 (16050)	*35450 (16050)				

***Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097.**
Stated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

MidWestTech | Komatsu PC200LL-7L, PC220LL-7L Hydraulic Excavator Operation & Mainte... Order the manual at mid-west-tech.com >