

# Operation & Maintenance Manual

UEAM004904

## PC210-8

## PC210LC, PC210NLC-8

## PC230NHD-8

## PC240LC, PC240NLC-8

### HYDRAULIC EXCAVATOR

SERIAL NUMBER

PC210, PC210LC, PC210NLC-8

- K50001 and up

PC230NHD-8

- K50001 and up

PC240LC, PC240NLC-8

- K50001 and up

PC240LC, PC240NLC-8

- 10001 and up



#### WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept inside the cab for reference and periodically reviewed by all personnel who will come into contact with the machine.

# KOMATSU

# CONTENTS

## FOREWORD

<b>FOREWORD</b> .....	1-4
<b>SAFETY INFORMATION</b> .....	1-5
NOISE (PC210,210LC,210NLC, PC230NHD) .....	1-7
NOISE (PC240LC,240NLC).....	1-8
VIBRATION LEVELS .....	1-9
GUIDE TO REDUCE VIBRATION LEVELS ON MACHINE .....	1-9
<b>INTRODUCTION</b> .....	1-11
DIRECTIONS OF MACHINE .....	1-11
BREAKING-IN THE NEW MACHINE .....	1-12
<b>PRODUCT INFORMATION</b> .....	1-13
PRODUCT IDENTIFICATION NUMBER (PIN)/MACHINE SERIAL NO. PLATE.....	1-13
ENGINE SERIAL NUMBER PLATE AND ITS LOCATION .....	1-13
SERVICE METER LOCATION .....	1-14
TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR .....	1-14
MACHINE SERIAL PLATES.....	1-15
STANDARD SERIAL PLATE .....	1-15

## SAFETY

<b>SAFETY INFORMATION</b> .....	2-2
<b>SAFETY LABELS</b> .....	2-4
LOCATION OF SAFETY LABELS .....	2-4
SAFETY LABELS .....	2-5
<b>SAFETY INFORMATION</b> .....	2-12
SAFETY RULES .....	2-12
IF PROBLEMS ARE FOUND .....	2-12
WORKING WEAR AND PERSONAL PROTECTIVE ITEMS .....	2-12
FIRE EXTINGUISHER AND FIRST AID KIT .....	2-12
SAFETY EQUIPMENT .....	2-13
KEEP MACHINE CLEAN.....	2-13
KEEP OPERATOR'S COMPARTMENT CLEAN.....	2-13
LEAVING OPERATOR'S SEAT WITH LOCK.....	2-13
HANDRAILS AND STEPS .....	2-14
MOUNTING AND DISMOUNTING .....	2-15
NO PERSONS ON ATTACHMENTS .....	2-15
DO NOT GET CAUGHT IN ARTICULATED PORTION .....	2-15
BURN PREVENTION .....	2-15

ACTION IF FIRE OCCURS .....	2-17
WINDSHIELD WASHER FLUID .....	2-17
FALLING OBJECTS, FLYING OBJECTS AND INTRUDING OBJECTS PREVENTION .....	2-17
ATTACHMENT INSTALLATION.....	2-17
ATTACHMENT COMBINATIONS .....	2-18
CAB WINDOW GLASSES.....	2-18
UNAUTHORIZED MODIFICATIONS.....	2-18
SAFETY AT JOBSITE .....	2-18
WORKING ON LOOSE GROUND .....	2-18
DISTANCE TO HIGH VOLTAGE CABLES .....	2-19
ENSURE GOOD VISIBILITY .....	2-19
VENTILATION FOR ENCLOSED AREA .....	2-20
SIGNALMAN'S SIGNAL AND SIGNS .....	2-20
EMERGENCY EXIT FROM OPERATOR'S CAB .....	2-20
ELECTROMAGNETIC INTERFERENCE.....	2-20
ASBESTOS DUST HAZARD PREVENTION .....	2-21
<b>SAFETY MACHINE OPERATION.....</b>	<b>2-22</b>
STARTING ENGINE .....	2-22
CHECKS BEFORE STARTING ENGINE .....	2-22
SAFETY RULES FOR STARTING ENGINE .....	2-23
STARTING ENGINE IN COLD WEATHER .....	2-23
OPERATION.....	2-24
CHECKS BEFORE OPERATION.....	2-24
SAFETY RULES FOR CHANGING MACHINE DIRECTIONS .....	2-24
SAFETY RULES FOR TRAVELLING.....	2-25
TRAVELLING ON SLOPES.....	2-26
OPERATIONS ON SLOPES .....	2-27
PROHIBITED OPERATIONS .....	2-27
OPERATIONS ON SNOW.....	2-29
PARKING MACHINE .....	2-29
TRANSPORTATION.....	2-30
LOADING AND UNLOADING.....	2-30
SHIPPING THE MACHINE.....	2-31
BATTERY .....	2-32
STARTING ENGINE WITH BOOSTER CABLES.....	2-33
TOWING .....	2-34
SAFETY RULES FOR TOWING .....	2-34
LIFTING OBJECTS WITH BUCKET.....	2-35
SAFETY RULES FOR LIFTING OBJECTS.....	2-35
<b>SAFETY MAINTENANCE INFORMATION .....</b>	<b>2-36</b>
WARNING TAG .....	2-36
KEEP WORK PLACE CLEAN AND TIDY .....	2-36
APPOINT LEADER WHEN WORKING WITH OTHERS.....	2-36
STOP ENGINE BEFORE CARRYING OUT MAINTENANCE.....	2-37
TWO WORKERS FOR MAINTENANCE WHEN ENGINE IS RUNNING .....	2-38
PROPER TOOLS .....	2-38