

# Shop Manual

HYDRAULIC  
EXCAVATOR

# PC210LC-11

SERIAL NUMBERS C80001 and up

**ecot3**

**KOMATSU**

---

# 00 INDEX AND FOREWORD

---

# INDEX

00 INDEX AND FOREWORD .....	00-1
ABBREVIATION LIST .....	00-20
FOREWORD, SAFETY, BASIC INFORMATION .....	00-26
HOW TO READ THE SHOP MANUAL .....	00-26
SAFETY NOTICE FOR OPERATION .....	00-28
PRECAUTIONS TO PREVENT FIRE .....	00-36
ACTIONS IF FIRE OCCURS .....	00-38
PRECAUTIONS FOR DISPOSING OF WASTE MATERIALS .....	00-39
ACTIONS TAKEN TO MEET EXHAUST GAS REGULATIONS .....	00-40
PRECAUTIONS FOR DEF .....	00-41
PRECAUTIONS FOR HANDLING HYDRAULIC EQUIPMENT .....	00-42
PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF PIPINGS .....	00-45
PRECAUTIONS FOR HANDLING ELECTRICAL EQUIPMENT .....	00-52
PRECAUTIONS FOR HANDLING FUEL SYSTEM EQUIPMENT .....	00-54
PRECAUTIONS FOR HANDLING INTAKE SYSTEM EQUIPMENT .....	00-55
PRACTICAL USE OF KOMTRAX .....	00-56
DISCONNECT AND CONNECT PUSH-PULL TYPE COUPLER .....	00-57
PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF CONNECTORS .....	00-61
METHOD FOR DISCONNECTING AND CONNECTING DEUTSCH CONNECTOR .....	00-65
METHOD FOR DISCONNECTING AND CONNECTING SLIDE LOCK TYPE CONNECTOR .....	00-66
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PULL ..	00-68
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH ..	00-69
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH HOUSING TO ROTATE .	00-71
HOW TO READ ELECTRICAL WIRE CODE .....	00-72
EXPLANATION OF TERMS FOR MAINTENANCE STANDARD .....	00-76
STANDARD TIGHTENING TORQUE TABLE .....	00-79
CONVERSION TABLE .....	00-86
01 SPECIFICATIONS .....	01-1
CONTENTS .....	01-2
ABBREVIATION LIST .....	01-3
SPECIFICATIONS .....	01-9
SPECIFICATION DRAWING .....	01-9
WORKING RANGE DRAWINGS .....	01-10
SPECIFICATIONS .....	01-11
WEIGHT TABLE .....	01-14
TABLE OF FUEL, COOLANT, AND LUBRICANTS .....	01-16
.....	01-17
10 STRUCTURE AND FUNCTION .....	10-1
CONTENTS .....	10-2
ABBREVIATION LIST .....	10-5
UREA SCR SYSTEM .....	10-11
LAYOUT DRAWING OF UREA SCR SYSTEM .....	10-12
UREA SCR SYSTEM DIAGRAM .....	10-17
FUNCTION OF UREA SCR SYSTEM .....	10-18
COMPONENT PARTS OF UREA SCR SYSTEM .....	10-34
BOOT-UP SYSTEM .....	10-43
LAYOUT DRAWING OF BOOT-UP SYSTEM .....	10-43
SYSTEM OPERATING LAMP SYSTEM .....	10-45
BATTERY DISCONNECT SWITCH .....	10-46
ENGINE SYSTEM .....	10-47
LAYOUT DRAWING OF ENGINE SYSTEM .....	10-47
ENGINE CONTROL SYSTEM .....	10-49
AUTO-DECELERATION SYSTEM .....	10-52
ENGINE AUTOMATIC WARM-UP SYSTEM .....	10-54
OVERHEAT PREVENTION SYSTEM .....	10-56

TURBOCHARGER PROTECTION SYSTEM .....	10-59
AUTOMATIC IDLE STOP SYSTEM .....	10-61
COMPONENT PARTS OF ENGINE SYSTEM .....	10-64
COOLING SYSTEM.....	10-83
LAYOUT DRAWING OF COOLING SYSTEM .....	10-83
FAN SPEED CONTROL SYSTEM OF FAN CLUTCH .....	10-85
ENGINE OUTPUT CONTROL SYSTEM OF FAN CLUTCH.....	10-87
COMPONENT PARTS OF COOLING SYSTEM.....	10-89
CONTROL SYSTEM.....	10-90
LAYOUT DRAWING OF CONTROL SYSTEM .....	10-90
MACHINE MONITOR SYSTEM .....	10-93
KOMTRAX SYSTEM.....	10-94
COMPONENT PARTS OF CONTROL SYSTEM.....	10-95
HYDRAULIC SYSTEM.....	10-127
LAYOUT DRAWING OF HYDRAULIC SYSTEM .....	10-127
CLSS .....	10-133
ENGINE AND PUMP COMBINED CONTROL SYSTEM.....	10-153
PUMP AND VALVE CONTROL SYSTEM .....	10-159
COMPONENT PARTS OF HYDRAULIC SYSTEM .....	10-162
WORK EQUIPMENT SYSTEM .....	10-247
LAYOUT DRAWING OF WORK EQUIPMENT SYSTEM .....	10-247
STRUCTURE OF VALVE CONTROL.....	10-252
ONE-TOUCH POWER MAXIMIZING SYSTEM .....	10-254
PPC LOCK SYSTEM .....	10-256
WORK EQUIPMENT AND TRAVEL AUTOMATIC LOCK SYSTEM .....	10-257
OIL FLOW ADJUSTER SYSTEM FOR ATTACHMENT.....	10-259
TOOL CONTROL SYSTEM .....	10-261
COMPONENT PARTS OF WORK EQUIPMENT SYSTEM.....	10-263
SWING SYSTEM.....	10-296
LAYOUT DRAWING OF SWING SYSTEM .....	10-296
SWING CONTROL SYSTEM DIAGRAM .....	10-300
COMPONENT PARTS OF SWING SYSTEM.....	10-304
TRAVEL SYSTEM.....	10-319
LAYOUT DRAWING OF TRAVEL SYSTEM.....	10-319
TRAVEL CONTROL SYSTEM DIAGRAM.....	10-323
COMPONENT PARTS OF TRAVEL SYSTEM .....	10-325
UNDERCARRIAGE AND FRAME.....	10-346
LAYOUT DRAWING OF UNDERCARRIAGE .....	10-346
WORK EQUIPMENT.....	10-348
STRUCTURE OF WORK EQUIPMENT .....	10-348
FUNCTION OF WORK EQUIPMENT .....	10-348
WORK EQUIPMENT CLEARANCE ADJUSTMENT SHIM.....	10-349
BUCKET CLEARANCE ADJUSTMENT SHIM .....	10-349
CAB AND ITS ATTACHMENTS .....	10-350
ROPS CAB .....	10-350
CAB MOUNT .....	10-351
CAB TIPPING STOPPER .....	10-352
20 STANDARD VALUE TABLE .....	20-1
CONTENTS .....	20-2
ABBREVIATION LIST .....	20-3
STANDARD VALUE TABLE FOR ENGINE .....	20-9
STANDARD VALUE TABLE FOR ENGINE: PC210LC-11 .....	20-9
STANDARD VALUE TABLE FOR MACHINE.....	20-13
STANDARD VALUE TABLE FOR MACHINE: PC210LC-11 .....	20-13
MACHINE POSTURE AND PROCEDURE FOR MEASURING PERFORMANCE .....	20-26
STANDARD VALUE TABLE FOR ELECTRICAL .....	20-30
STANDARD VALUE TABLE FOR ELECTRICAL .....	20-30
30 TESTING AND ADJUSTING .....	30-1

CONTENTS .....	30-2
ABBREVIATION LIST .....	30-5
RELATED INFORMATION ON TESTING AND ADJUSTING .....	30-11
TOOLS FOR TESTING AND ADJUSTING.....	30-11
SKETCH OF TOOLS FOR TESTING AND ADJUSTING .....	30-17
ENGINE AND COOLING SYSTEM.....	30-19
TEST ENGINE SPEED .....	30-19
TEST BOOST PRESSURE.....	30-22
TEST EXHAUST GAS COLOR.....	30-24
TEST AND ADJUST VALVE CLEARANCE .....	30-27
TEST COMPRESSION PRESSURE.....	30-29
TEST BLOWBY PRESSURE .....	30-34
TEST ENGINE OIL PRESSURE.....	30-36
TEST EGR VALVE AND VGT OIL PRESSURE .....	30-37
TEST FUEL PRESSURE .....	30-39
TEST FUEL DISCHARGE, RETURN AND LEAKAGE .....	30-45
BLEEDING AIR FROM FUEL SYSTEM .....	30-52
TEST FUEL CIRCUIT FOR LEAKAGE .....	30-53
HANDLE CYLINDER CUT-OUT MODE OPERATION.....	30-55
HANDLE NO-INJECTION CRANKING OPERATION .....	30-56
TEST AND ADJUST AIR CONDITIONER COMPRESSOR BELT TENSION .....	30-57
TEST COOLING FAN SPEED .....	30-59
WRITE ASH IN SOOT ACCUMULATION CORRECTION TO ENGINE CONTROLLER .....	30-60
TEST SCR RELATED FUNCTIONS.....	30-61
CLEAN AdBlue/DEF TANK .....	30-89
BLEED AIR FROM COOLANT CIRCUIT OF AdBlue/DEF TANK.....	30-93
POWER TRAIN.....	30-95
TEST SWING CIRCLE BEARING CLEARANCE .....	30-95
UNDERCARRIAGE AND FRAME.....	30-96
TEST AND ADJUST TRACK TENSION.....	30-96
HYDRAULIC SYSTEM.....	30-98
RELEASE REMAINING PRESSURE FROM HYDRAULIC SYSTEM.....	30-98
TEST AND ADJUST OIL PRESSURE IN WORK EQUIPMENT, SWING, AND TRAVEL CIRCUITS.....	30-99
TEST OIL PRESSURE OF CONTROL CIRCUIT .....	30-109
TEST AND ADJUST OIL PRESSURE IN PUMP PC CONTROL CIRCUIT .....	30-111
TEST AND ADJUST OIL PRESSURE IN PUMP LS CONTROL CIRCUIT.....	30-114
TEST OUTLET PRESSURE OF SOLENOID VALVE .....	30-121
TEST PPC VALVE OUTLET PRESSURE .....	30-125
ADJUST WORK EQUIPMENT AND SWING PPC VALVES .....	30-127
TEST PUMP SWASH PLATE SENSOR.....	30-128
TEST THE PARTS CAUSING HYDRAULIC DRIFT IN WORK EQUIPMENT.....	30-129
TEST OIL LEAKAGE .....	30-131
BLEED AIR FROM HYDRAULIC CIRCUIT .....	30-134
TEST AND CHARGE ACCUMULATOR (MANUFACTURED BY NOK) NITROGEN GAS PRESSURE FOR ATTACHMENT (LOW PRESSURE SIDE).....	30-138
TEST AND CHARGE ACCUMULATOR NITROGEN GAS PRESSURE FOR ATTACHMENT (HIGH PRESSURE SIDE).....	30-142
REPLACE ACCUMULATOR BLADDER ON HIGH PRESSURE SIDE FOR ACCUMULATOR PIPING....	30-146
CAB AND ITS ATTACHMENTS .....	30-153
TEST CAB TIPPING STOPPER .....	30-153
METHOD FOR ADJUSTING MIRRORS .....	30-154
ELECTRICAL SYSTEM .....	30-158
SET AND OPERATE MACHINE MONITOR.....	30-158
METHOD FOR STARTING UP KOMTRAX TERMINAL .....	30-242
ADJUST REARVIEW CAMERA ANGLE .....	30-247
ADJUST KomVision CAMERA ANGLE .....	30-250

It's a preview. You can download the full file by clicking the link below.

<https://shopservicemanual.com/>

Service Manuals from 2\$