

# Shop Manual

**HYDRAULIC  
EXCAVATOR**

**PC490 -11**

**PC490LC -11**

**SERIAL NUMBERS      85006 and up  
                                 K70001 and up**

**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
STORE DEF .....	00-42
PRECAUTIONS FOR HANDLING HYDRAULIC EQUIPMENT .....	00-43
PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF PIPINGS .....	00-46
PRECAUTIONS FOR HANDLING ELECTRICAL EQUIPMENT .....	00-53
PRECAUTIONS FOR HANDLING FUEL SYSTEM EQUIPMENT .....	00-55
PRECAUTIONS FOR HANDLING INTAKE SYSTEM EQUIPMENT .....	00-56
PRACTICAL USE OF KOMTRAX .....	00-57
DISCONNECT AND CONNECT PUSH-PULL TYPE COUPLER .....	00-58
PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF CONNECTORS .....	00-62
METHOD FOR DISCONNECTING AND CONNECTING DEUTSCH CONNECTOR .....	00-66
METHOD FOR DISCONNECTING AND CONNECTING SLIDE LOCK TYPE CONNECTOR .....	00-67
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PULL ..	00-69
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH ..	00-70
METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH HOUSING TO ROTATE .	00-72
HOW TO READ ELECTRICAL WIRE CODE .....	00-73
EXPLANATION OF TERMS FOR MAINTENANCE STANDARD .....	00-77
STANDARD TIGHTENING TORQUE TABLE .....	00-80
CONVERSION TABLE .....	00-87
01 SPECIFICATIONS .....	01-1
CONTENTS .....	01-2
ABBREVIATION LIST .....	01-3
SPECIFICATIONS .....	01-9
SPECIFICATION DRAWING .....	01-9
WORKING RANGE DRAWINGS .....	01-11
SPECIFICATIONS .....	01-12
WEIGHT TABLE .....	01-15
TABLE OF FUEL, COOLANT, AND LUBRICANTS .....	01-17
10 STRUCTURE AND FUNCTION .....	10-1
CONTENTS .....	10-2
ABBREVIATION LIST .....	10-6
UREA SCR SYSTEM .....	10-12
LAYOUT DRAWING OF UREA SCR SYSTEM .....	10-12
UREA SCR SYSTEM DIAGRAM .....	10-16
FUNCTION OF UREA SCR SYSTEM .....	10-17
COMPONENT PARTS OF UREA SCR SYSTEM .....	10-27
BOOT-UP SYSTEM .....	10-36
LAYOUT DRAWING OF BOOT-UP SYSTEM .....	10-36
SYSTEM OPERATING LAMP SYSTEM .....	10-38
BATTERY DISCONNECT SWITCH .....	10-40
ENGINE SYSTEM .....	10-41
LAYOUT DRAWING OF ENGINE SYSTEM .....	10-41
ENGINE CONTROL SYSTEM .....	10-44
AUTO-DECELERATION SYSTEM .....	10-47
ENGINE AUTOMATIC WARM-UP SYSTEM .....	10-49
OVERHEAT PREVENTION SYSTEM .....	10-51

TURBOCHARGER PROTECTION SYSTEM .....	10-54
AUTOMATIC IDLE STOP SYSTEM .....	10-56
COMPONENT PARTS OF ENGINE SYSTEM .....	10-59
COOLING SYSTEM.....	10-75
LAYOUT DRAWING OF COOLING SYSTEM .....	10-75
FAN SPEED CONTROL SYSTEM OF HYDRAULIC FAN.....	10-78
ENGINE OUTPUT CONTROL SYSTEM OF HYDRAULIC FAN.....	10-80
FAN REVERSE ROTATION SYSTEM OF HYDRAULIC FAN.....	10-83
COMPONENT PARTS OF COOLING SYSTEM.....	10-84
CONTROL SYSTEM.....	10-98
LAYOUT DRAWING OF CONTROL SYSTEM .....	10-98
MACHINE MONITOR SYSTEM .....	10-101
KomVision SYSTEM .....	10-102
KOMTRAX SYSTEM.....	10-106
PPC LEVERS .....	10-107
AUTOMATIC GREASE SYSTEM.....	10-109
COMPONENT PARTS OF CONTROL SYSTEM.....	10-124
SENSOR.....	10-160
HYDRAULIC SYSTEM.....	10-163
LAYOUT DRAWING OF HYDRAULIC SYSTEM .....	10-163
CLSS .....	10-165
ENGINE AND PUMP COMBINED CONTROL SYSTEM.....	10-184
PUMP AND VALVE CONTROL SYSTEM .....	10-191
COMPONENT PARTS OF HYDRAULIC SYSTEM .....	10-194
WORK EQUIPMENT SYSTEM .....	10-284
LAYOUT DRAWING OF WORK EQUIPMENT SYSTEM .....	10-284
STRUCTURE OF VALVE CONTROL.....	10-289
ONE-TOUCH POWER MAXIMIZING SYSTEM .....	10-290
MACHINE PUSH-UP SYSTEM.....	10-292
PPC LOCK SYSTEM .....	10-294
WORK EQUIPMENT AND TRAVEL AUTOMATIC LOCK SYSTEM .....	10-295
OIL FLOW ADJUSTER SYSTEM FOR ATTACHMENT.....	10-297
COMPONENT PARTS OF WORK EQUIPMENT SYSTEM.....	10-299
SWING SYSTEM.....	10-318
LAYOUT DRAWING OF SWING SYSTEM .....	10-318
SWING CONTROL SYSTEM DIAGRAM .....	10-324
COMPONENT PARTS OF SWING SYSTEM.....	10-328
TRAVEL SYSTEM.....	10-343
LAYOUT DRAWING OF TRAVEL SYSTEM.....	10-343
TRAVEL CONTROL SYSTEM DIAGRAM.....	10-347
COMPONENT PARTS OF TRAVEL SYSTEM .....	10-349
UNDERCARRIAGE AND FRAME.....	10-371
LAYOUT DRAWING OF UNDERCARRIAGE .....	10-371
WORK EQUIPMENT.....	10-372
STRUCTURE OF WORK EQUIPMENT .....	10-372
FUNCTION OF WORK EQUIPMENT .....	10-373
WORK EQUIPMENT CLEARANCE ADJUSTMENT SHIM.....	10-374
BUCKET CLEARANCE ADJUSTMENT SHIM .....	10-375
CAB AND ITS ATTACHMENTS .....	10-376
ROPS CAB .....	10-376
CAB MOUNT .....	10-377
CAB TIPPING STOPPER .....	10-378
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: PC490LC-11 .....	20-9
STANDARD VALUE TABLE FOR MACHINE.....	20-12

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

<https://shopservicemanual.com/>

Service Manuals from 2\$