

Shop Manual

HYDRAULIC
EXCAVATOR

PC290LC-8

SERIAL NUMBERS 30742 and up

ecot3

KOMATSU

00 Index and foreword

Index

00 Index and foreword

Index	00-2
Foreword and general information	00-9
Safety notice	00-9
How to read the shop manual	00-14
Explanation of terms for maintenance standard	00-16
Handling of electric equipment and hydraulic component	00-18
Handling of connectors newly used for engines	00-27
How to read electric wire code	00-30
Precautions when carrying out operation	00-33
Method of disassembling and connecting push-pull type coupler	00-36
Standard tightening torque table	00-39
Conversion table	00-43

01 Specification

Specification and technical data	01-3
Specification dimension drawings	01-3
Working range diagram	01-4
Specifications	01-5
Weight table	01-7
Table of fuel, coolant and lubricants	01-9

10 Structure, function and maintenance standard

Engine and cooling system	10-3
Engine related parts	10-3
Radiator, oil cooler, aftercooler and fuel cooler	10-4
Power train	10-5
Power train	10-5
Final drive	10-6
Swing machinery	10-8
Swing circle	10-10
Undercarriage and frame	10-11
Track frame and recoil spring	10-11
Idler	10-13
Carrier roller	10-15
Track roller	10-16
Track shoe	10-17
Hydraulic system	10-20
Hydraulic equipment layout drawing	10-20
Hydraulic tank and filter	10-22
Hydraulic pump	10-24
Pilot oil filter	10-46
Control valve	10-47
CLSS	10-58
Functions and operation by valve	10-62
Swing motor	10-100
Center swivel joint	10-108
Travel motor	10-110
PPC valve	10-122
Valve control	10-142
Solenoid valve	10-144
PPC accumulator	10-146
Return oil filter	10-147
Attachment circuit selector valve	10-148
Hydraulic cylinder	10-150

Work equipment	10-152
Dimensions of components	10-152
Cab and its attachments	10-158
Air conditioner piping	10-158
Electrical system	10-159
Engine control	10-159
Electrical control system	10-168
Monitor system	10-191
Sensor	10-217
KOMTRAX system	10-220
 20 Standard value table	
Standard service value table	20-3
Standard value table for engine related parts	20-3
Standard value table for chassis related parts	20-4
 30 Testing and adjusting	
Related information on testing and adjusting	30-3
Tools for testing, adjusting, and troubleshooting	30-3
Sketch of special tool	30-7
Engine and cooling system	30-8
Testing engine speed	30-8
Testing intake air pressure (boost pressure)	30-9
Checking exhaust gas color	30-10
Adjusting valve clearance	30-11
Testing compression pressure	30-13
Testing blow-by pressure	30-15
Testing engine oil pressure	30-16
Handling fuel system parts	30-17
Releasing residual pressure from fuel system	30-17
Testing fuel pressure	30-18
Testing fuel delivery, return and leak amount	30-21
Bleeding air from fuel circuit	30-24
Checking fuel circuit for leakage	30-25
Checking and adjusting air conditioner compressor belt tension	30-26
Replacing fan belt	30-27
Power train	30-28
Testing swing circle bearing clearance	30-28
Undercarriage and frame	30-29
Checking and adjusting track shoe tension	30-29
Hydraulic system	30-31
Testing and adjusting oil pressure in work equipment, swing, and travel circuits	30-31
Testing control circuit basic pressure	30-34
Testing and adjusting oil pressure in pump PC control circuit	30-35
Testing and adjusting oil pressure in pump LS control circuit	30-38
Testing solenoid valve output pressure	30-43
Testing PPC valve output pressure	30-46
Adjusting play of work equipment and swing PPC valves	30-48
Checking parts which cause hydraulic drift of work equipment	30-49
Releasing residual pressure from hydraulic circuit	30-51
Testing oil leakage	30-52
Bleeding air from each part	30-55
Cab and its attachments	30-57
Checking cab tipping stopper	30-57
Installation and adjustment of mirrors	30-58
Electrical system	30-61
Special functions of machine monitor	30-61
Handling voltage circuit of engine controller	30-116

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

<https://shopservicemanual.com/>

Service Manuals from 2\$