EEAM010300

Operation & Maintenance Manual

PC290LC-6K

PC290NLC-6K

HYDRAULIC EXCAVATOR

SERIAL NUMBER

PC290LC-6K - K30001 and up
PC290NLC-6K - K30001 and up
Including 2 piece boom

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 near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

KOMATSU®

MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation & Mai... Order the manual at mid-west-tech.com >

5. CONTENTS

1. FOREWORD 0-1

2. SAFETY INFORMATION 0-2

3. INTRODUCTION 0-4

4. LOCATION OF PLATES, TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR 0-5

SAFETY

6. GENERAL PRECAUTIONS 1-2

7. PRECAUTIONS DURING OPERATION 1-8
   - 7.1 Before starting engine 1-8
   - 7.2 Operating machine 1-10
   - 7.3 Transportation 1-15
   - 7.4 Battery 1-16
   - 7.5 Towing 1-17
   - 7.6 Bucket with hook 1-18

8. PRECAUTIONS FOR MAINTENANCE 1-21
   - 8.1 Before carrying out maintenance 1-21
   - 8.2 During maintenance 1-24

9. POSITION FOR ATTACHING SAFETY LABELS 1-28

OPERATION

10. GENERAL VIEW
    - 10.1 General view of machine 2-2
    - 10.2 General view of controls and gauges 2-3

11. EXPLANATION OF COMPONENTS
    - 11.1 Machine monitor 2-4
    - 11.2 Meter 2-15
    - 11.3 switches 2-16
    - 11.4 Control levers, pedals 2-20
    - 11.5 Ceiling window 2-25
    - 11.6 Front window 2-26
    - 11.7 Door lock 2-28
    - 11.8 Cap, cover with lock 2-29
    - 11.9 Luggage tray 2-30
    - 11.10 Ashtray 2-30
    - 11.11 Heater 2-30
    - 11.12 Air conditioner 2-31
    - 11.13 Car radio 2-34
    - 11.14 Fuse 2-35
    - 11.15 Fusible link 2-36
    - 11.16 Controllers 2-36
    - 11.17 Tool box 2-36
    - 11.18 Refuelling pump 2-36
    - 11.19 Handling the accumulator 2-37

MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >

12. OPERATION
12.1 Check before starting engine 2-39
12.2 Starting engine 2-49
12.3 Operations and checks after starting engine 2-52
12.4 Moving machine off 2-58
12.5 Steering machine 2-61
12.6 Stopping machine 2-63
12.7 Swinging 2-64
12.8 Operation of work equipment 2-65
12.9 Handling active mode 2-66
12.10 Working mode selection 2-68
12.11 Prohibitions for operation 2-70
12.12 Precaution for operation 2-72
12.13 Precaution when travelling up or down hills 2-73
12.14 How to escape from mud 2-75
12.15 Work possible using hydraulic excavator 2-76
12.16 Replacement and inversion of bucket 2-77
12.17 Parking the machine 2-79
12.18 Check after finishing work 2-80
12.19 Stopping engine 2-81
12.20 Check after stopping engine 2-82
12.21 Locking 2-82
12.22 Overload warning device 2-82

13 TRANSPORTATION
13.1 Loading, unloading work 2-83
13.2 Precautions for loading 2-85
13.3 Precautions for transportation 2-86
13.4 Lifting the machine 2-86

14. COLD WEATHER OPERATION
14.1 Precaution for low temperature 2-87
14.2 Precautions after completion of work 2-89
14.3 After cold weather 2-89

15. LONG-TERM STORAGE
15.1 Before storage 2-90
15.2 Posture when leaving machine 2-90
15.3 During storage 2-91
15.4 After storage 2-91
15.5 Starting machine after long-term storage 2-91

16. TROUBLESHOOTING
16.1 Phenomena that are not failures 2-92
16.2 Method of towing machine 2-92
16.3 Using method for light-weight towing hole 2-92
16.4 Precautions on particular jobsites 2-93
16.5 If battery is discharged 2-93
16.6 Other trouble 2-97

PC290 ENG

MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >

MAINTENANCE

17. GUIDES TO MAINTENANCE 3-2

18. OUTLINES OF SERVICE 3-5
18.1 Outline of oil, fuel, coolant 3-5
18.2 Outline of electric system 3-9
18.3 Outline of hydraulic system 3-10

19. WEAR PARTS LIST 3-11

20. USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE 3-12

PRECAUTIONS WHEN HANDLING 3-17

TESTING AND ADJUSTING 3-19

PERIODIC MAINTENANCE 3-20

21. STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS 3-21
21.1 Introduction of necessary tools 3-21
21.2 Torque list 3-22

22. PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS 3-23

23. MAINTENANCE SCHEDULE CHART 3-26
23.1 Maintenance schedule chart 3-26
23.2 Maintenance interval when using hydraulic breaker 3-28

24. SERVICE PROCEDURE 3-29
24.1 Initial 250 hours service 3-29
24.2 When required 3-30
24.3 Check before staring 3-46
24.4 Every 100 hours service 3-51
24.5 Every 250 hours service 3-55
24.6 Every 500 hours service 3-59
24.7 Every 1000 hours service 3-65
24.8 Every 2000 hours service 3-68
24.9 Every 4000 hours service 3-71
24.10 Every 5000 hours service 3-72

SPECIFICATIONS

25. MACHINE SPECIFICATIONS 4-2
25.1 Machine specifications 4-2
25.2 Explanation of lifting capacity chart 4-6

TRANSPORTATION 4-9

COMPONENTS DIMENSIONS AND WEIGHTS (Approximate) • (Two Piece Boom) 4-10

MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >

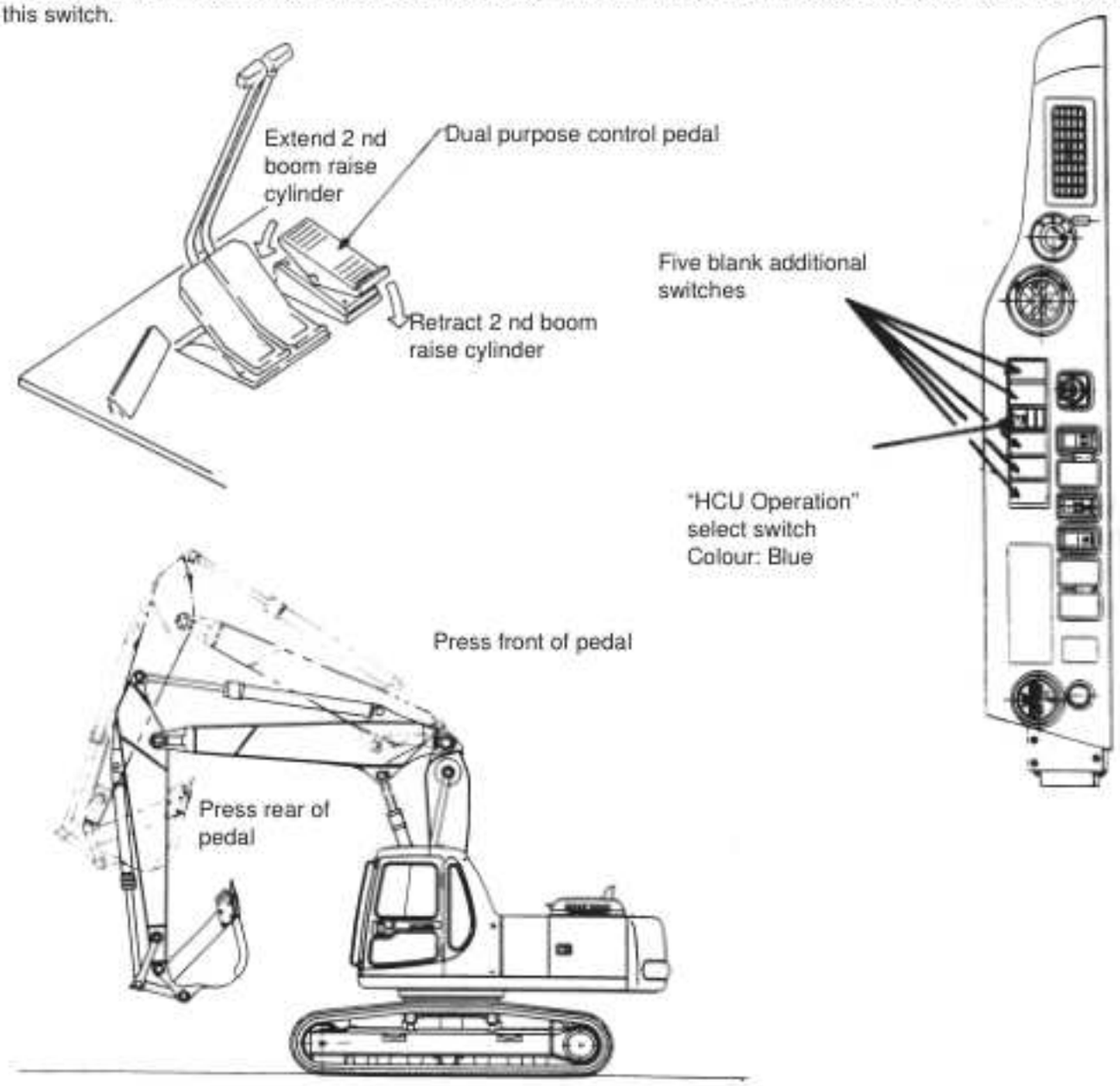
OPERATION: explanation of Devices

1. Dual Purpose Control Pedal.

The additional pedal to the right of the travel levers controls two functions on a PC290LC/NLC-6K-Piece Boom machine:

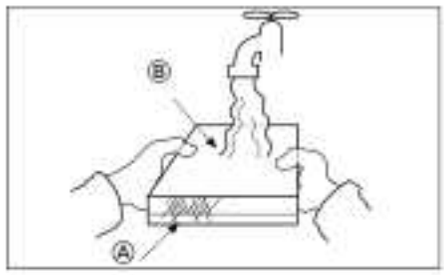
In normal operation the pedal controls the operation of the second boom adjust cylinder. Pressing down on the front of the pedal pushes the second boom away from the cab, pressing down on the rear of the pedal pulls the second boom towards the cab.

The foot pedal is also used to operate the HCU circuit. To select HCU operation, operate the additional switch on the RH. stand console. Once HCU operation has been selected, it is controlled by the foot pedal in the same way as the mono-boom machine. The second boom adjust cylinder will not operate if HCU circuit operation is selected at this switch.



MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >

Rinse filter with clean water from the fine filter side.



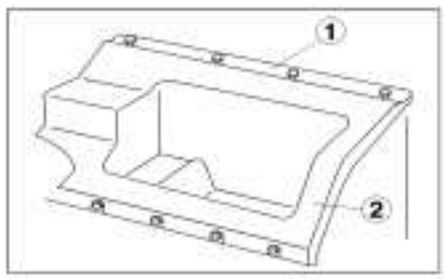
6. Dry filter, compressed air may be used, but apply air from fine filter side.

7. Refit filter element ensuring coarse filter side is facing outwards.

Notice.
The normal cleaning interval is 100 hours, however if the machine is used at a dusty side, shorten this interval.

Clean recirculation air filter (air conditioner option only.)

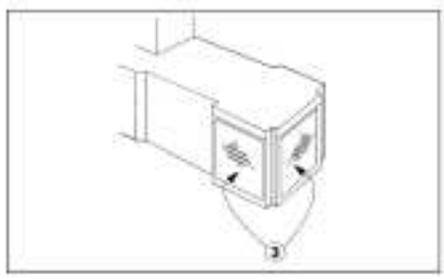
1. Remove 4 bolts on the upper side of the luggage tray and remove bracket ①.



2. Remove 4 bolts on the lower side and lift away luggage tray ②. If radio is fitted, disconnect radio connector first by removing radio (using special tools provided).

3. Pull filter elements ③ out of air conditioner housing.

4. Clean as fresh air intake filter (note recirculation air filter is homogenous and can be fitted in either direction).

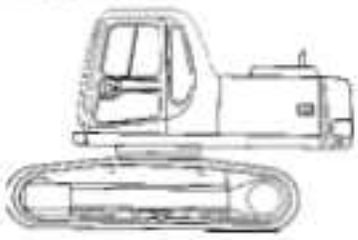


5. Re-install.

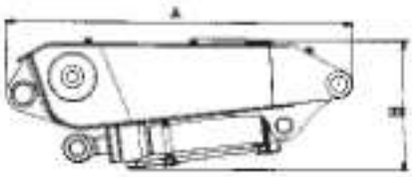
MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >

COMPONENTS DIMENSIONS AND WEIGHTS
(Approximate weights) • (Two piece Boom)

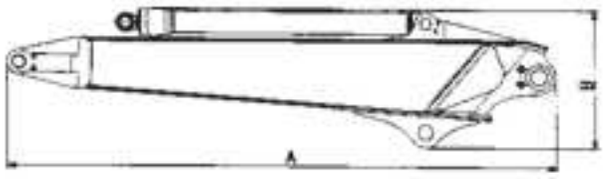
BASIC MACHINE



Shoes width	Shoes width	
	PC290LC-6	PC290NLC-6
600 mm	23550 kg	23435 kg
700 mm	23900 kg	23785 kg
800 mm	24250 kg	24135 kg
900 mm	24600 kg	24485 kg



A	B	Weight
2800	970	1312 kg

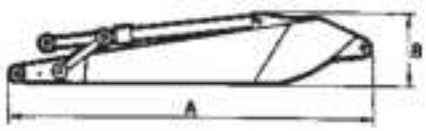


A	B	Weight
3741	1060	1350 kg



A	B	Weight
1850	330	246 kg

ARM WITH BUCKET CYLINDER AND LINKAGE



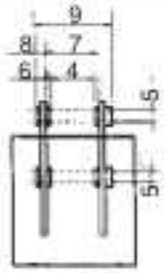
Arm	2,0 m	2,5 m	3,0 m	3,5 m
A	3050 mm	3595 mm	4105 mm	4560 mm
B	895 mm	850 mm	760 mm	790 mm
Weight	1153 kg	1082 kg	1151 kg	1260 kg

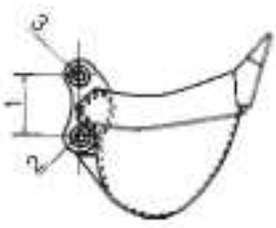
BUCKET BACKHOE



SAE m³	0,74	0,95	1,16	1,37	1,58	1,80
Width mm	700	900	1100	1300	1500	1700
Weight kg	740	848	956	1064	1172	1280

BUCKET PORTION





No.	Dimensions
1	520
2	82
3	82
4	326
5	80
6	10
7	346
8	49
9	490

MidWestTech | Komatsu PC290LC-6K, PC290NLC-6K Hydraulic Excavator Operation... Order the manual at mid-west-tech.com >