SEAM004203

Operation & Maintenance Manual

KOMATSU®

PC60-7

HYDRAULIC EXCAVATOR

SERIAL NUMBERS **PC60-7 - 52374** and up

September 1997

Copyright 1997 Komatsu America International Company

MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | P... Order the manual at mid-west-tech.com >

5. CONTENTS

1. **Foreword** 0- 1

2. **Safety information** 0- 2

3. **Introduction** 0- 3

4. **Location of plates, table to enter serial No. and distributor** 0- 4

SAFETY

6. **General precautions** 1- 2

7. **Precautions during operation** 1- 8
   - 7.1 Before starting engine 1- 8
   - 7.2 After starting engine 1-10
   - 7.3 Transportation 1-17
   - 7.4 Battery 1-18
   - 7.5 Towing 1-20
   - 7.6 Bucket with hook 1-21

8. **Precautions for maintenance** 1-22
   - 8.1 Before carrying out maintenance 1-22
   - 8.2 During maintenance 1-26

9. **Position for attaching safety labels** 1-31

OPERATION

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

11. **Explanation of components** 2- 4
    - 11.1 Machine monitor 2- 4
    - 11.2 Switches 2-10
    - 11.3 Control levers and pedals 2-15
    - 11.4 Ceiling window 2-21
    - 11.5 Engine hood 2-22
    - 11.6 Front window 2-23
    - 11.7 Door lock 2-25
    - 11.8 Ashtray 2-25
    - 11.9 Cap, cover with lock 2-26
    - 11.10 Car radio 2-27
    - 11.11 Fuse 2-31
    - 11.12 Fusible link 2-32
    - 11.13 Controllers 2-32
    - 11.14 Tool box 2-32
    - 11.15 Grease pump holder 2-32

MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Pub... Order the manual at mid-west-tech.com >

12. Operation 2-33
12.1 Check before starting engine 2-33
12.2 Starting engine 2-45
12.3 Operations and checks after starting engine 2-47
12.4 Moving machine off 2-49
12.5 Steering machine 2-52
12.6 Stopping machine 2-54
12.7 Swinging 2-55
12.8 Operation of work equipment 2-56
12.9 Prohibitions for operation 2-57
12.10 Precautions for operation 2-60
12.11 Precautions when traveling up or down hills 2-61
12.12 How to escape from mud 2-63
12.13 Work possible using hydraulic excavator 2-64
12.14 Replacement and inversion of bucket 2-65
12.15 Parking machine 2-68
12.16 Check after finishing work 2-69
12.17 Stopping engine 2-69
12.18 Check after stopping engine 2-70
12.19 Locking 2-70

13. Transportation 2-71
13.1 Loading, unloading work 2-71
13.2 Precautions for loading 2-73
13.3 Precautions for transportation 2-74
13.4 Method of lifting machine 2-76

14. Cold weather operation 2-79
14.1 Precautions for low temperature 2-79
14.2 Preparing the cab heater 2-80
14.3 Precautions after completion of work 2-81
14.4 After cold weather 2-81

15. Long-term storage 2-82
15.1 Before storage 2-82
15.2 During storage 2-83
15.3 After storage 2-83

16. Troubleshooting 2-84
16.1 Phenomena that are not failures 2-84
16.2 Method of towing machine 2-84
16.3 Using method for light-weight towing hook 2-84
16.4 Precautions on particular jobsites 2-85
16.5 If battery is discharged 2-85
16.6 Other trouble 2-90

MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Publ... Order the manual at mid-west-tech.com >

MAINTENANCE

17. Guides to maintenance 3- 2

18. Outlines of service 3- 4
18.1 Outline of oil, fuel, coolant 3- 4
18.2 Outline of electric system 3- 7
18.3 Outline of hydraulic system 3- 8

19. Wear parts list 3- 9

20. Use of fuel, coolant and lubricants according to ambient temperature 3-10

21. Standard tightening torques for bolts and nuts 3-14
21.1 Introduction of necessary tools 3-14
21.2 Torque list 3-15

22. Periodic replacement of safety critical parts 3-16

23. Maintenance schedule chart 3-19
23.1 Maintenance schedule chart 3-19
23.2 Maintenance interval when using hydraulic breaker 3-21

24. Service Procedure 3-22
24.1 Initial 250 hours service 3-22
24.2 When required 3-23
24.3 Check before starting 3-43
24.4 Every 50 hours service 3-48
24.5 Every 100 hours service 3-49
24.6 Every 250 hours service 3-52
24.7 Every 500 hours service 3-55
24.8 Every 1000 hours service 3-63
24.9 Every 2000 hours service 3-66
24.10 Every 4000 hours service 3-67
24.11 Every 5000 hours service 3-68

SPECIFICATIONS

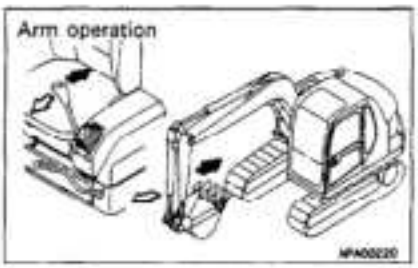
25. Specifications 4- 2

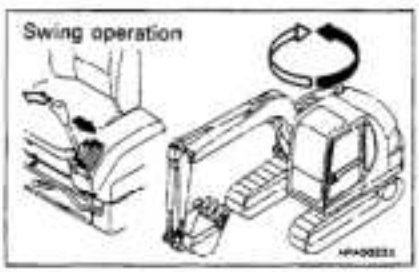
MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Pub... Order the manual at mid-west-tech.com >

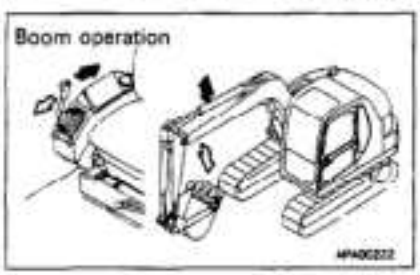
12.8 OPERATION OF WORK EQUIPMENT

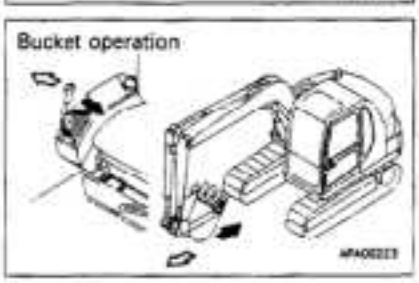
The work equipment is operated by the left and right work equipment control levers. The left work equipment control lever operates the arm and swing, and the right work equipment control lever operates the boom and bucket.

The movements of the lever and work equipment are as shown in the diagrams on the right. When the levers are released, they automatically return to the neutral position and the work equipment is held in place.









MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Pub... Order the manual at mid-west-tech.com >

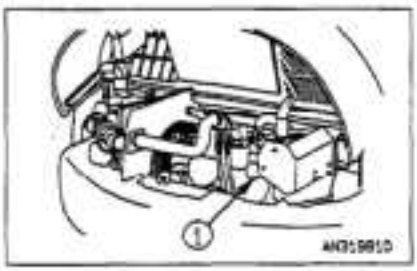
24.7.3 REPLACE FUEL FILTER CARTRIDGE

⚠WARNING

- **Engine is at high temperature immediately after the machine has been operated. Wait for engine to cool down before replacing the filter.**
- **Do not bring fire or sparks near the fuel.**

Prepare the following.
- Filter wrench for fuel filter cartridge
- Container to catch the fuel

1. Set the container to catch the fuel under the filter cartridge.
2. Using a filter wrench, turn filter cartridge ① counterclockwise to remove it.
3. Clean the filter holder, fill a new filter cartridge with clean fuel, coat the packing surface with engine oil, then install it to the filter holder.
4. When installing, tighten until the packing surface contacts the seal surface of the filter holder, then tighten it up 2/3 of a turn.



NOTICE

If the filter cartridge is tightened too far, the packing will be damaged and this will lead to leakage of fuel. If the filter cartridge is too loose, fuel will also leak from the packing, so always tighten to the correct amount.

5. After replacing the fuel filter cartridge, bleed the air.
   Bleed the air according to the following procedures.

MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Pub... Order the manual at mid-west-tech.com >

25. SPECIFICATIONS

PC60-7

		PC60-7	PC60-7 (with blade specification)	PC60-7 (long arm)
WEIGHT				
• Operating weight (without operator)		6200 kg (13673 lb)	6800 kg (14994 lb)	6270 kg (13825 lb)
PERFORMANCE				
• Bucket capacity (standard bucket) SAE/CECE		0.28 m³ (0.37 cu.yd)/0.25 m³		0.20 m³ (0.26 cu.yd)/ 0.10 m³
• Width of opening	(Standard bucket)	650 mm (25.6 in)		550 mm (21.7 in)
	(With side cutter)	750 mm (29.5 in)		650 mm (25.6 in)
• Travel speed	Low speed	2.8 km/h (1.7 MPH)		
	High speed	4.5 km/h (2.8 MPH)		
• Swing speed		12 rpm		
TRACK SHOE				
• Triple grouser shoe (standard)		450 mm (18 in) width		
ENGINE				
• Model		Komatsu 4D102E diesel engine		
• Flywheel horsepower		40.5 kW (54 HP)/1750 rpm		
• Starting motor		24 V 4.5 kW		
• Alternator		24 V 25 A		
• Battery		12 V 70 Ah x 2 pieces		

MidWestTech | Komatsu PC60-7 Hydraulic Excavator Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >