Operation & Maintenance Manual

TEN00298-01

avance LOADER

WA800-3

WHEEL LOADER

SERIAL NUMBERS 50091 and up

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 Avance WA800-3 Wheel Loader Operation & Maintenance Manual... Order the manual at mid-west-tech.com >

5. CONTENTS

1. **Foreword** 0- 1

2. **Safety information** 0- 4

3. **Introduction** 0- 5

4. **Location of plates, table to enter serial No. and distributor** 0- 7

SAFETY

6. **General precautions** 1- 2

7. **Precautions during operation** 1- 8
   - 7.1 Before starting engine 1- 8
   - 7.2 After starting engine 1-11
   - 7.3 Transportation 1-19
   - 7.4 Battery 1-20
   - 7.5 Towing 1-22

8. **Precautions for maintenance** 1-23
   - 8.1 Before carrying out maintenance 1-23
   - 8.2 During maintenance 1-28
   - 8.3 Tires 1-34

9. **Position for attaching safety labels** 1-36

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 2-14
   - 11.3 Control levers, pedals 2-22
   - 11.4 Steering column tilt lever 2-26
   - 11.5 Cap with lock 2-26
   - 11.6 Safety bar 2-27
   - 11.7 Towing pin 2-27
   - 11.8 Grease pump 2-28
   - 11.9 Backup alarm 2-28
   - 11.10 Door-open lock 2-28
   - 11.11 Tool box 2-28
   - 11.12 Fuel stop lever 2-28
   - 11.13 Fuse 2-29
   - 11.14 Slow-blow fuse 2-30
   - 11.15 Lunch box tray 2-31
   - 11.16 Storaging place of this manual 2-31
   - 11.17 Taking off power 2-31
   - 11.18 Precautions when handling accumulator 2-32

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >

12. Operation 2-33
12.1 Check before starting engine 2-33
12.2 Starting engine 2-52
12.3 Operations and checks after starting engine 2-54
12.4 Moving machine off 2-55
12.5 Changing gear speed 2-57
12.6 Changing direction 2-58
12.7 Turning 2-60
12.8 Stopping machine 2-61
12.9 Operation of work equipment 2-62
12.10 Work possible using wheel loader 2-63
12.11 Precautions for operation 2-68
12.12 Adjusting work equipment posture 2-70
12.13 Parking machine 2-72
12.14 Checks after completion of operation 2-73
12.15 Stopping engine 2-73
12.16 Check after stopping engine 2-74
12.17 Locking 2-74
12.18 Handling the tires 2-75
12.19 Removal and installation of the bucket 2-77

13. Transportation 2-81
13.1 Transportation procedure 2-81
13.2 Loading, unloading work 2-81
13.3 Method of securing machine 2-81
13.4 Method of lifting machine 2-83

14. Cold weather operation 2-86
14.1 Precautions for low temperature 2-86
14.2 Precautions after completion of work 2-88
14.3 After cold weather 2-88
14.4 Warming-up operation for steering hydraulic circuit in cold weather 2-89

15. Long-term storage 2-90
15.1 Before storage 2-90
15.2 During storage 2-90
15.3 After storage 2-90

16. Troubleshooting 2-91
16.1 When machine runs out of fuel 2-91
16.2 Method of towing machine 2-92
16.3 If battery is discharged 2-95
16.4 Other trouble 2-99

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >

MAINTENANCE

17. Guides to maintenance 3- 2

18. Outlines of service 3- 5
18.1 Handling oil, fuel, coolant, and performing oil clinic 3- 5
18.2 Outline of electric system 3- 8

19. Wear parts list 3- 9

20. Recommended fuel, coolant, and lubricant 3-10
20.1 Use of fuel, coolant and lubricants according to ambient temperature 3-11
20.2 Recommended brands, recommended quality for products other than Komatsu genuine oil 3-12

21. Standard tightening torques for bolts and nuts 3-13
21.1 Introduction of necessary tools 3-13
21.2 Torque list 3-14

22. Periodic replacement of safety critical parts 3-15

23. Maintenance schedule chart 3-17
23.1 Maintenance schedule chart 3-17

24. Service Procedure 3-21
24.1 Initial 250 hours service 3-21
24.2 When required 3-22
24.3 Check before starting 3-45
24.4 Every 50 hours service 3-52
24.5 Every 100 hours service 3-53
24.6 Every 250 hours service 3-56
24.7 Every 500 hours service 3-61
24.8 Every 1000 hours service 3-67
24.9 Every 2000 hours service 3-75
24.10 Every 4000 hours service 3-85

SPECIFICATIONS

25. Specifications 4- 2

OPTIONS, ATTACHMENTS

26. Optional part and attachments 5- 2

27. Selecting buckets and tires 5- 3

28. Handling auto shift system 5- 4
28.1 Automatic shift system 5- 4
28.2 Precautions when changing direction 5- 5

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >

23. MAINTENANCE SCHEDULE CHART

23.1 MAINTENANCE SCHEDULE CHART

SERVICE ITEM	PAGE
INITIAL 250 HOURS SERVICE (only after the first 250 hours)	
Replace fuel filter cartridge	3-21
Replace transmission oil filter element	3-21
Check engine valve clearance, adjust	3-21
WHEN REQUIRED	
Check, clean, or replace air cleaner element	3-22
Clean inside of cooling system	3-24
Check transmission oil level, add oil	3-28
Check axle oil level, add oil	3-29
Clean axle case breather	3-30
Check window washing fluid level, add fluid	3-30
Clean condenser of air conditioner	3-31
Clean radiator fins	3-31
Check electrical intake air heater	3-31
Replace bucket teeth	3-32
Lubricating	3-33
• Work equipment control valve linkage (2 points)	3-33
• Accelerator pedal linkage (2 points)	3-34
• Bucket pin (2 points)	3-34
• Bucket link pin (2 points)	3-34
• Lift arm hinge pin (2 points)	3-34
• Bucket cylinder pin (2 points)	3-34
• Tilt lever pin (1 point)	3-34
• Lift cylinder pin (4 points)	3-35
Check air conditioner (if equipped)	3-36
Adjust parking brake	3-37
Bleeding air from brake hydraulic circuit	3-38
Bleeding air from PPC circuit	3-38
Replace slow blow fuse	3-39

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >

26. OPTIONAL PARTS AND ATTACHMENTS

Name	Specification, use
Bucket	Capacity 11.0 m³ (14.2 cu.yd) (for spade nose rock bucket)
Bucket (for high-lift boom)	Capacity 10.0 m³ (13.0 cu.yd) (for spade nose rock bucket)
Bucket tooth	• Tip type tooth for rock • Tip type tooth for limestone
High-lift boom	Optimum for loading 120-ton class dump truck
Mesh chain	Tire protector

- ROPS canopy
- Emergency steering
- Tires
- Air conditioner
- Heater and front defroster
- Rear wiper and windwasher
- Car radio
- Fire extinguisher
- Tire inflation kit
- Joy stick steering system
- Auto grease system

These and various other parts and attachments are available, so please contact your Komatsu distributor.

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >

32.2 METHOD OF OPERATION

Condition of use \ Switch		Fan switch	Air conditioner switch	Temperature control switch	FRESH/RECIRC switch	Vent mode selector switch
Cooling	Rapid	HI	ON	All blue	RECIRC	FACE
	Normal	HI-LO	ON	More than half are blue	FRESH	FACE
Dehumidifying, heating		HI-LO	ON	More than half are red	FRESH	FOOT
Heating	Rapid	HI	OFF	All red	RECIRC	FOOT
	Normal	HI-LO	OFF	More than half are red	FRESH	FOOT
Defroster		HI	ON	More than half are red	FRESH	DEF
Ventilation or pressurizing		HI-LO	OFF	All blue	FRESH	FACE

When carrying out the defrosting, if the temperature control switch is set so that all lamps are red, this will improve the performance for defrosting and demisting.

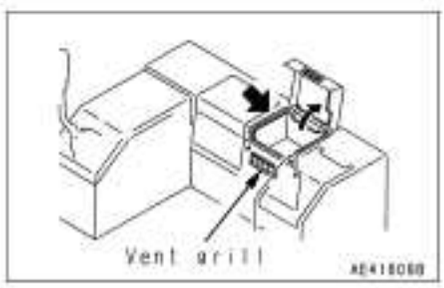
Set the vent mode selector switch to the intermediate position to give the desired condition.

With the FACE vents, it is possible to adjust the direction of the air flow and to turn it on or off.
However, do not set to the FACE mode with the vents closed.

32.3 COOL BOX

When the cooling is being used, this can be used for keeping drinks and other things cool.
When the heating is being used, it can be used to keep things warm.

When using the box, open the vent grill. When not using the box, close the grill.



Do not use the cool box for things which smell or leak water or break easily.

Do not use it as a holder for tools or other small objects.

MidWestTech | Komatsu Avance WA800-3 Wheel Loader Operation & Maintenance Ma... Order the manual at mid-west-tech.com >