Operation & Maintenance Manual

VEAM470400

WA420-3H

WHEEL LOADER

SERIAL NUMBERS WA420H30462 to WA420H30566

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.

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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

5. **Contents** 0-5

5.1 **Dimensions, weights and data** 0-9
- 5.1.1 Dimensions, weights and data WA420-3 0-9
- 5.1.2 Dimensions, weights and data WA420-3 High-Lift 0-10

5.2 **Equipment, CE-conform** 0-11

5.3 **Loading** 0-16

SAFETY

6. **General precautions** **1-2**

7. **Precautions during operation**
- 7.1 Before starting the engine 1-8
- 7.2 Machine operation 1-10
- 7.3 Transportation 1-14

8. **Precautions for maintenance**
- 8.1.1 Personnel 1-16
- 8.1.2 Before carrying out maintenance 1-16
- 8.1.3 During maintenance 1-19
- 8.1.4 Tyres 1-23

9. **Position for attaching safety labels** **1-25**

OPERATION

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

11. **Explanation of components**
- 11.1 Machine motor 2-5
- 11.2 Switches 2-16
- 11.3 Control levers, pedals 2-25
- 11.4 Steering column tilt lever 2-31
- 11.5 Cap with lock 2-31
- 11.6 Safety bar 2-32
- 11.7 Towing pin 2-32
- 11.8 Grease pump 2-33
- 11.9 Backup alarm 2-33
- 11.10 Fuse 2-34
- 11.11 Slow-blow fuse 2-35
- 11.13 Air conditioner 2-36

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5. CONTENTS

12. Operation

12.1	Check before starting the engine	2-39
12.2	Starting engine	2-52
12.3	Operations and checks after starting engine	2-53
12.4	Machine travel	2-55
12.5	Shifting the gear	2-57
12.6	Changing direction	2-59
12.7	Turning	2-59
12.8	Stopping machine	2-60
12.9	Operation of work equipment	2-61
12.10	Operations with the wheel loader	2-64
12.11	Precautions for operation	2-68
12.12	Adjusting work equipment position	2-70
12.13	Parking the machine	2-72
12.14	Checks after completion of operation	2-73
12.15	Stopping engine	2-74
12.16	Check after stopping engine	2-74
12.17	Locking	2-74
12.18	Handling the tires	2-75

13. Transportation

13.1	Loading, unloading work	2-77
13.2	Precautions for loading	2-78
13.3	Precautions for transportation	2-78

14. Cold weather operation

14.1	Precautions for low temperature	2-79
14.2	Precautions after completion of work	2-81
14.3	After cold weather	2-81

15. Long-term storage

15.1	Before storage	2-82
15.2	During storage	2-82
15.3	After storage	2-82

16. Troubleshooting

16.1	When machine runs out of fuel	2-83
16.2	Towing the machine	2-84
16.3	If battery is discharged	2-89
16.4	Malfunktion of brake	2-93
16.5	Other trouble	2-94

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MAINTENANCE

17. Guides to maintenance 3-2

18. Outlines of service
18.1 Oil, fuel, coolant 3-5
18.2 Electric system 3-8

19. Wear parts list 3-9

20. Lubrication and operating means
20.1 Lubrication chart 3-10
20.2 Use of fuel, coolant and lubricants according to ambient temperature 3-11

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

22. Periodic replacement of safety critical parts 3-15

23. Maintenance schedule chart
23.1 Maintenance schedule chart 3-16

24. Service procedure
24.1 Initial 250 hours service 3-20
24.2 When required 3-21
24.3 Checks before starting 3-34
24.4 Every 50 hours service 3-40
24.5 Every 100 hours service 3-41
24.6 Every 250 hours service 3-42
24.7 Every 500 hours service 3-50
24.8 Every 1000 hours service 3-53
24.9 Every 2000 hours service 3-58
24.10 Every 4000 hours service 3-64

SPECIFICATIONS

25. Specifications 4-2
25.1 Noise level 4-3
25.2 Vibration level 4-3
25.3 Limit values for the operation on slopes 4-3

OPTIONS, ATTACHMENTS

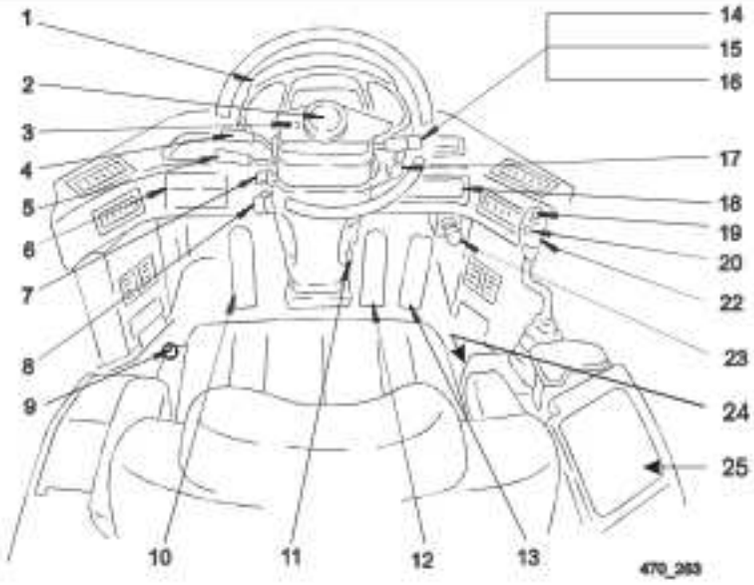
28. Special Equipment and Attachments
28.1 ALS-Electronic 5-2
28.1.1 Structure and function of ALS-Electronics 5-2
28.1.2 Precautionary Measures for switching on the ALS-Electronics 5-2
28.1.3 Operating the ALS-Electronics 5-3
28.1.4 Precautions when handling accumulator 5-3

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10.2.1 GENERAL VIEW OF CONTROLS AND GAUGES

1 Main monitor
2 Horn switch
3 Hazard lamp switch
4 Directional lever
5 Speed control lever
6 Air conditioner panel
7 Speed control lever stopper
8 Wiper switch
9 Parking brake lever
10 Brake pedal
11 Steering column tilt lever
12 Brake pedal
13 Accelerator pedal
14 Lamp switch
15 Turn signal lever
16 Dimmer switch
17 Starting switch
18 Car radio
19 Kickdown switch
20 Gear-change lock

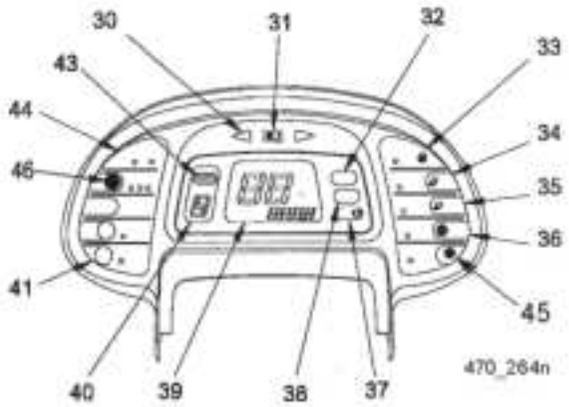
22 Lift arm and bucket control lever
23 Cigarette lighter
24 Safety lock lever
25 Maintenance monitor



GENERAL VIEW

30 Turn signal pilot lamp
31 High beam pilot lamp
32 Centralized checking lamp
33 Engine pre-heating pilot lamp
34 Pilot lamp for front working lamp
35 Pilot lamp for rear working lamp
36 Transmission cut-off selector pilot lamp
37 Parking brake pilot lamp
38 Central warning lamp
39 Speedometer
40 Transmission shift indicator
41 ALS Electronic

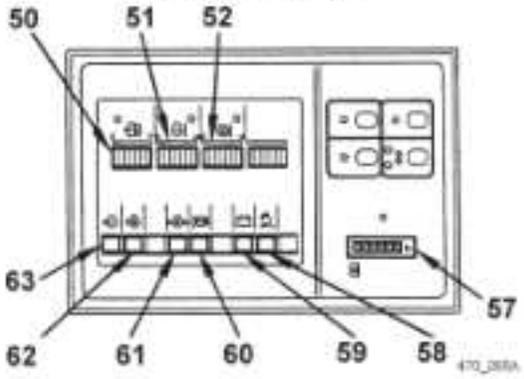
43 Pilot lamp for gear-change lock
44 Emergency steering operating monitor
45 Autoshift transmission pilot switch
46 Work mode selector switch



MAIN MONITOR

50 Fuel gauge
51 Engine cooling water temperature gauge
52 Torque converter oil temperature gauge

57 Service meter
58 Air cleaner clogging warning pilot lamp
59 Charge monitor
60 Brake oil pressure warning pilot lamp
61 Engine oil pressure warning lamp
62 Engine oil level warning pilot lamp
63 Engine water level warning lamp



MAINTENANCE MONITOR

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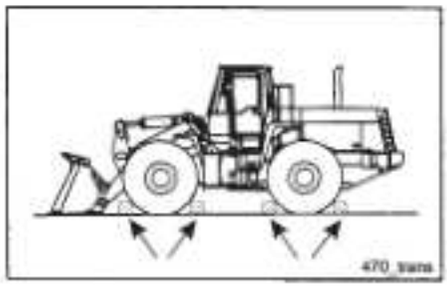
17. MAINTENANCE GUIDE

Do not carry out any inspection and maintenance operation works which are not indicated in this manual.

Perform maintenance work on hard, flat ground.

Always bring the machine in the specified maintenance and repair position.
Always carry out works with the machine in the following position unless otherwise specified.

- Lower the work equipment on the ground and set it as shown in the diagram on the right.
- Set all control levers to the neutral or HOLD position.
- Set the safety lever to the LOCK position.
- Pull the parking brake lever to apply the parking brake.
- Put blocks in front of and behind the tires.
- Lock the front and rear frames with the safety bar.



Check service meter:
Check the service meter every day to see if any maintenance is due.
Komatsu original replacement parts:
Only use Komatsu original parts specified in the Parts Book as replacement parts.

Komatsu original oils:
Use original oils and grease by Komatsu. Choose oils and grease with the specified viscosity depending on the ambient temperature.

Always use clean washer fluid:
Use automobile window washer fluid and make sure it is not contaminated with dust or dirt.

Always use clean oil and grease:
Use clean oil and grease. Also keep the containers of oil and grease clean. Keep foreign materials away from oil and grease.

Keep the machine clean:
Always keep the machine clean. This facilitates troubleshooting considerably. In particular, keep grease fitting, breathers and oil level gauges clean and avoid any contamination with foreign materials.

Be careful of hot water and oil:
Draining hot oils and coolants and removing their filters immediately after stopping the engine are hazardous. Allow the engine to cool before.
If the oil has to be drained when it is cold, warm it up to a suitable temperature (approx. 20 - 40 °C), then drain!

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WA420-3	LUBRICANTS, FUEL ETC. AND FILLING CAPACITIES					
	Lubricants, fuel etc.	BI code ****)	Quality grades	Temperature ranges	Viscosity ranges	Approx. filling capacity in litres
Engine	Engine oil EO	EO 1540 A EO 1030 A NRS	CCMC D4 or, if not available, API CE or API CF -4 [2])	-10° to 50° C -25° to 20° C -40° to 20° C	SAE 15W-40 *) SAE 10W-30 SAE 05W-30	22,5 (19 **)
Transmission	Engine oil EO	EO 10	CCMC D4 or, if not available, API CD	-	SAE 10W	60
Axles with standard locking differentials type KWA 017 W-1 KWA 017 W-2	Universal transmission and hydraulic oil	NRS	Fuchs: RENOGEAR HYDRA ZF 20W-40*) Komatsu: AXO 75 Caltex: RPM TRACTOR HYDRAULIC FLUID Chevron: TRACTOR HYDRAULIC FLUID Texaco: TDH OIL Mobil: MOBILAND SUPER UNIVERSAL			2x60
	or engine oil EO	EO 30	CCMC D4 or, if not available, API CD	-	SAE 30	
Axles with multi-disc locking differentials type KWA 017 W-3 KWA 017 W-4	Universal transmission and hydraulic oil	NRS	Fuchs: RENOGEAR HYDRA ZF 20W-40*)			
Hydraulic system, steering, brakes	Hydraulic oil HYD	HYD 0530	HVLP, HVLP D	-35° to 50° C	ISO VG 46 *)	249 (138**)
	or engine oil EO	EO 10	CCMC D4 or, if not available, API CD	-35° to 40° C	SAE 10W	
	or hydraulic oil BIO-E-HYD	BIO-E-HYD 0530	HEES (to VDMA fluid technology)	-35° to 50° C	ISO VG 46	
Cooling system	Long-life coolant with anti-frost and rust prevention SP-C	SP-C	Anti-frost and rust prevention			50
Fuel tank	Diesel fuel [3])	CFPP class B CFPP class D CFPP class E CFPP class F	DIN-EN 590	up to 0°C up to -10°C up to -15°C up to -20°C		320
Grease nipples, central lubrication	Multi-purpose grease MPG on a lithium base	MPG-A	KP2N-20	-10° to 50° C -35° to -10° C	NLGI 2 *) NLGI 0	
Air conditioning	Coolant Refrigerating machine oil	NRS NRS	R134a (CFC-free) PAG (polyalkylglycol oil)			1500 g 150 cm³

The specified filling capacities are approximate guidelines; test specifications are binding. The selection of the viscosity class depends on the predominantly existing outside temperature. The temperature limits are to be regarded as guidelines which can be exceeded up or down for a brief period.

*) Works filling **) Top-up quantity

[2]) If no engine oil of the API CE or API CF-4 specification is available, API CC or API CD-classified engine oil can be used alternatively. The oil change intervals must be split in half in this case, however.

[3]) If the fuel sulphur content is between 0.5 and 1.0 %, the oil change interval must be 1/2 normal. With a sulphur content of more than 1.0 %, the oil change interval must be 1/4 normal.

****) BI codes are the "standard lubricants" for construction machinery and vehicles of the Hauptverband der Deutschen Bauindustrie e.V. (BI). The brochure "Regelschmierstoffe für Baumaschinen- und Fahrzeuge" (Standard Lubricants for Construction Machinery and Vehicles" can be obtained from bookstores or Bauverlag GmbH, Wiesbaden and Berlin, under the ISBN no. 3-7625-3102-1.

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