CEAM012704

Operation & Maintenance Manual

WA430-6

WHEEL LOADER

SERIAL NUMBERS WA430-6 A41001 and up

Engine 6D114E-3

March 2016

KOMATSU®

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

INTRODUCTION

FOREWORD 0-2
SAFETY INFORMATION 0-3
APPROVED AND NON-APPROVED USES 0-4
Approved Functions 0-4
Non-Approved Functions 0-4
VISIBILITY STANDARD 0-5
Visibility in Immediate Area 0-5
12-M Radius Visibility 0-5
PRODUCT IDENTIFICATION 0-6
Machine 0-6
Service Meter Location 0-7
Directions of Machine 0-7
Machine Serial Number/Product Identification Number (PIN) 0-8
Engine Serial Number, EPA Regulations 0-8
SERIAL NUMBERS AND DISTRIBUTOR INFORMATION 0-9
Model: WA430-6 0-9
TABLE OF CONTENTS 0-11

SAFETY

SAFETY AND WARNING DECALS 1-2
Location of the Safety Labels 1-2
Safety Labels 1-3
GENERAL SAFETY RULES AND PRECAUTIONS 1-10
General Safety Rules 1-10
Seat Belt Inspection 1-11
Safety at Job Site 1-12
Safety Features 1-12
Clothing and Protective Equipment 1-12
Keep Machine Clean 1-13
Fire and Explosion Prevention 1-13
Fire Caused by Fuel, Oil, Antifreeze, or Window Washer Fluid 1-13
Fire Caused by Accumulation of Flammable Material 1-14
Fire Caused by Electrical Wiring 1-14
Fire Caused by Piping 1-14
Explosion Caused by Lighting Equipment 1-14
Action if Fire Occurs 1-15
Fire Extinguisher and First Aid Kit 1-15
Mounting and Dismounting 1-16
Inside Operator's Compartment 1-17
Emergency Escape from Operator's Cab 1-17
Precautions When Standing Up from Operator's Seat 1-18
Parking the Machine 1-19
Leaving the Machine 1-20
Transporting the Machine 1-21

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

Loading and Unloading 1-21
Towing 1-22
Precautions When Using ROPS 1-23
Unauthorized Modification 1-23
Precautions for Attachments and Options 1-23
Precautions When Cleaning Cab Glass 1-24
Asbestos Hazard Alert 1-24
Crush or Pinch-Point Dangers 1-25
Precautions for Ventilation Exhaust Gas 1-25
PRECAUTIONS BEFORE STARTING OPERATIONS 1-26
Pre-Operational Checks 1-26
Ensure Good Visibility 1-26
Signs and Signals 1-26
Precaution for Warning Tag 1-27
Checks Before Starting Engine, Adjustments 1-27
PRECAUTIONS WHEN STARTING 1-29
Precautions in Cold Areas 1-29
PRECAUTIONS FOR JOB SITE 1-30
Work Site Hazards 1-30
Working on Loose or Unstable Ground 1-30
Prohibited Operations 1-31
Avoiding Dangerous Situations 1-31
Working Near High Voltage Cables 1-33
RULES FOR ROAD TRAVEL 1-34
Travel Precautions 1-34
Traveling on Slopes 1-35
Using the Brakes 1-36
Traveling in Reverse 1-36
Operating on Snow or Frozen Surfaces 1-37
PRECAUTIONS DURING INSPECTION AND MAINTENANCE 1-38
Warning Tags 1-38
Workplace Environment 1-38
Systems Equipped with ECSS 1-38
Equipment Storage 1-39
Working Under the Machine 1-39
Using Drop Lamps 1-40
Using Proper Tools 1-40
Keeping the Machine Clean 1-40
Precautions When Welding 1-40
Precautions When Using Hammer 1-41
Noise 1-41
Stopping Engine During Inspection and Maintenance 1-42
Running the Machine During Maintenance 1-44
Rules for Refueling the Machine 1-45
Cooling System Precautions 1-45
Window Washer Fluid 1-45
Battery Information 1-45
Precautions 1-45
Hazards 1-46

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

Using Booster Cables 1-47
Starting the Machine with Booster Cables 1-47
High-Pressure Precautions 1-48
Precautions for High-Pressure Oil 1-48
Safe Handling of High-Pressure Hoses 1-48
Precautions for High-Pressure Fuel 1-48
High-Temperature Precautions 1-49
High-Temperature Areas 1-49
High-Temperature Coolant 1-49
High-Temperature Oil 1-49
High Voltage 1-49
Accumulator and Gas Spring 1-50
Tires 1-50
Storing Tires 1-51
Using Compressed Air 1-51
Disposal of Waste Materials 1-51
Critical Parts 1-51
Maintenance of Air Conditioner 1-52

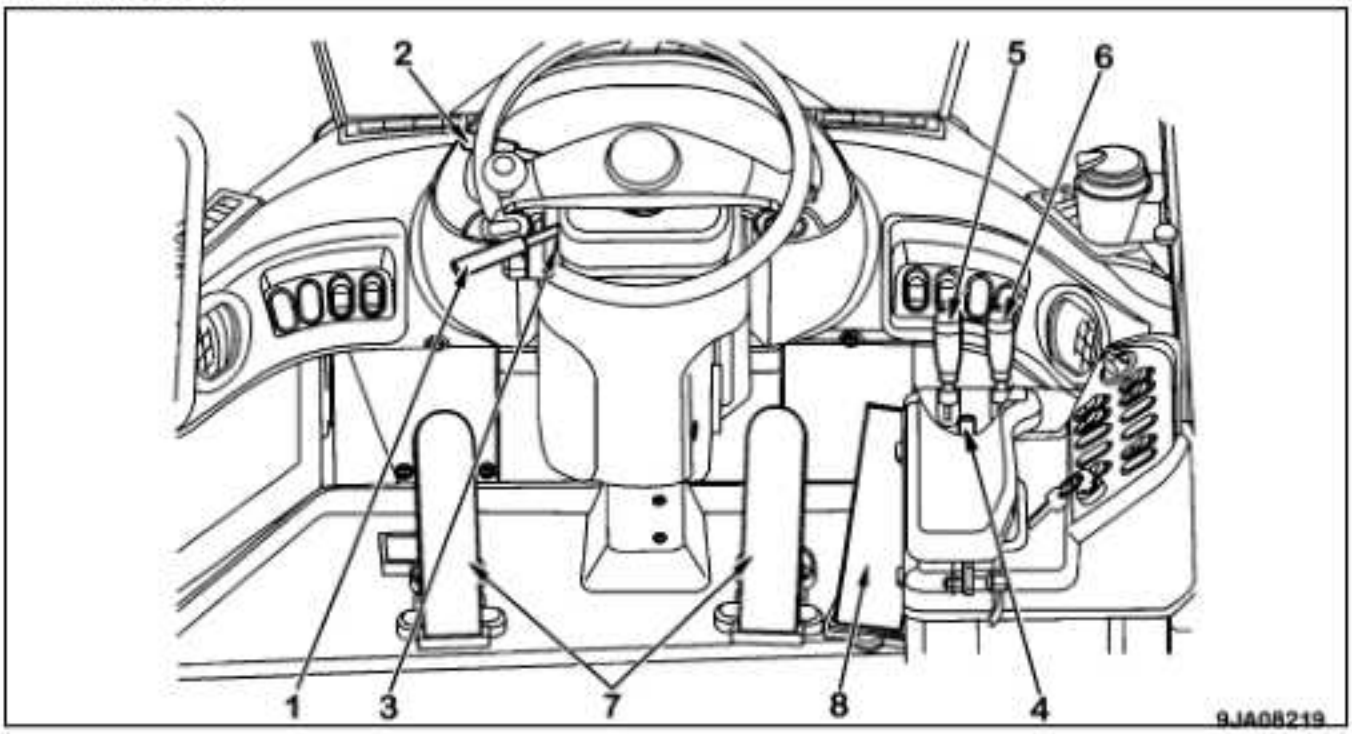
OPERATION

GENERAL VIEW 2-2
General View of Machine 2-2
General View of Controls and Gauges 2-3
Machine Monitor 2-4
Switch Panel 2-6
EXPLANATION OF COMPONENTS 2-7
Machine Monitor 2-7
Types of Warnings 2-8
Emergency Stop 2-8
Caution 2-8
Mistaken Operation 2-8
Inspection and Maintenance 2-8
Central Warning Lamp 2-8
Character Display Portion 2-9
Service Meter 2-10
Action Code Display 2-10
Failure Code Display 2-11
Filter, Oil Replacement Time Display 2-12
Emergency Stop Items 2-15
Brake Oil Pressure Caution Lamp 2-16
Engine Oil Pressure Caution Lamp 2-16
Battery Charge Circuit Caution Lamp 2-17
Steering Oil Pressure Caution Lamp (if equipped) 2-17
Caution Items 2-18
Brake Oil Temperature Caution Lamp 2-19
Torque Converter Oil Temperature Caution Lamp 2-19
Engine Coolant Temperature Caution Lamp 2-20
Hydraulic Oil Temperature Caution Lamp 2-20

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

CONTROL LEVERS, PEDALS

General View



1. Gearshift lever
2. Directional lever
3. Gearshift lever stopper
4. Work equipment lock lever
5. Bucket control lever
6. Lift arm control lever
7. Brake pedals
8. Accelerator pedal

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

Every 1000 Hours Service

★ Maintenance for every 50, 100, 250, and 500 hours service should be performed at the same time.

Replace Fuel Main Filter Cartridge (Standard Specification)

⚠ WARNING

- After the engine has been operated, all parts are very hot. Do not replace the filter immediately. Wait for all parts to cool down before starting the operation.
- High pressure is generated inside the engine fuel piping system when the engine is running. When replacing the filter, wait for at least 30 seconds after stopping the engine to let the internal pressure go down, before replacing the filter.
- Do not bring any fire or flame close.

Remark

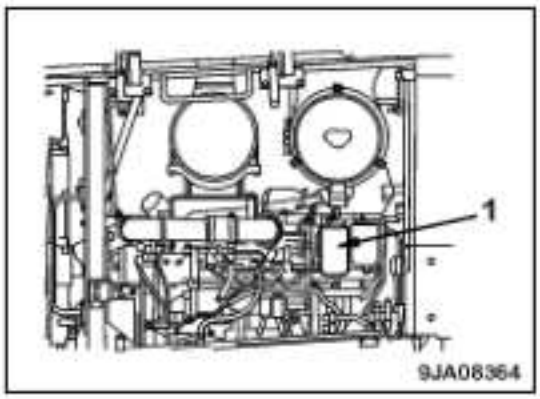
Genuine Komatsu fuel filter cartridges use a special filter that has a highly efficient filtering ability. When replacing the filter cartridge, always use a genuine Komatsu part.

The common rail fuel injection system used on this machine consists of more precise parts than the conventional injection pump and nozzle.

If any part other than a genuine Komatsu filter cartridge is used, dust or dirt may get in and cause problems with the injection system. Never use substitute parts.

When carrying out inspection or maintenance of the fuel system, pay more attention than normal to the entry of dirt. If dirt is stuck to any part, use fuel to wash it off completely.

★ If it is necessary to replace the fuel prefilter cartridge, see "Replace Fuel Prefilter Cartridge" on page 3-69.



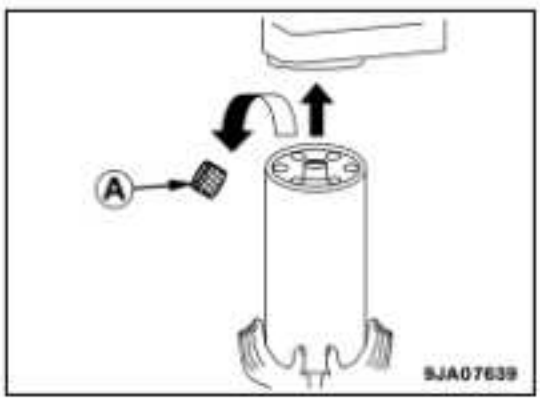
Required

- Container to catch oil
- Filter wrench

1. Stop the engine.
2. Open the engine side cover on the right side of the chassis.
3. Set the container to catch the fuel under the filter cartridge.
4. Using a filter wrench, turn filter cartridge (1) counterclockwise to remove it.
5. Clean the filter holder.
6. Check that cap (A) is installed on the new filter cartridge.

Remark

Cap (A) prevents dirt from getting into the filter cartridge



7. Coat the packing surface of the new filter cartridge with oil.
   ★ Do not fill the fuel main filter cartridge with fuel.
8. Remove filter cartridge cap (A) and discard it.

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

SPECIFICATIONS

	Item			Unit	WA430-6 standard specification machine (when using POWER mode)
	Machine weight (with bolt on cutting edge)			kg (lb)	18,290 (40,323)
	Normal load			kg (lb)	5,600 (12,346)
	Bucket capacity	Heaped		m^3 (yd^3)	3.5 (4.6)
	Engine model			-	Komatsu SAA6D114E-3 diesel engine
	Flywheel horsepower			kW(HP)/rpm	172 (231)/2,100
A	Overall length			mm (ft in)	8,305 (27 ft 3 in)
B	Overall height			mm (ft in)	3,390 (11 ft 1 in)
C	Max. dimension when shaking bucket			mm (ft in)	5,710 (18 ft 9 in)
D	Overall width			mm (ft in)	2,820 (9 ft 3 in)
E	Min. ground clearance			mm (ft in)	455 (1 ft 6 in)
F	Bucket width			mm (ft in)	3,050 (10 ft 0 in)
G	Dumping clearance (*1)	Cutting edge [BOC tip]		mm (ft in)	3,105 (10 ft 2 in) [3,020 (9 ft 11 in)]
H	Dumping reach (*1)	Cutting edge [BOC tip]		mm (ft in)	1,150 (3 ft 9 in) [1,190 (4 ft 11 in)]
I	Bucket dump angle (max. height)			degrees	49
	Min. turning radius	Outside of chassis		mm (ft in)	7,230 (23 ft 9 in)[7,335 (24 ft 1 in)]
		Center of outside tire		mm (ft in)	6,335 (20 ft 9 in)
	Permissible towing load			kN (kg) {lb}	116 (11,800) {26,015}
	Travel speed	Forward	1st	km/h (mph)	7.0 (4.3)
			2nd	km/h (mph)	12.3 (7.6)
			3rd	km/h (mph)	21.6 (13.4)
			4th	km/h (mph)	37.2 (23.1)
		Reverse	1st	km/h (mph)	7.6 (4.7)
			2nd	km/h (mph)	12.9 (8.0)
			3rd	km/h (mph)	23.0 (14.3)
			4th	km/h (mph)	37.2 (23.1)

*1: Indicates the value at the 45° bucket dump angle.

MidWestTech | Komatsu WA430-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >