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WSM

WORKSHOP MANUAL

Z231KW-AU

Kubota

TO THE READER

This workshop manual provides safety information for service activity, general information such as specifications and dimensions of the machine, mechanisms and structure descriptions of the machine, and service procedures.

Safety

This section contains safety service descriptions and safety label information.

General

This section contains general instructions, tightening torques, general machine information and special tools.

Maintenance

This section contains information for the recommended oil and general maintenance procedures.

Each section basically consists of mechanism and servicing.

Mechanism

Mechanism part contains information and explanations for the structure, functions, and specifications of the machine or component parts. This part should be comprehended before proceeding with troubleshooting, disassembling, assembling, and servicing works.

Servicing

Servicing part contains information and procedures for maintenance, troubleshooting and repair works. The reader should follow these instructions in order to satisfy any servicing work safely, correctly and quickly.

In this WSM, service specifications and service limits are defined as followings.

Service specifications:

Specification which corresponds to new machine's ex-factory. It is based on quality standard, drawings, or actual measurements conducted by Kubota. This value is used to determine whether there is a problem with the machine in the event of a troubleshooting. However, it is necessary to consider degradation due to wear, based on the operating time of the machine, application or maintenance condition.

Service limits:

Service limit is a value corresponding to the recommended performance limit by taking long term-use wear into account. When the service limit is reached, the machine is required to have proper repair, overhaul or replacement in order to keep safe and adequate performance.

All of the illustrations, photographs, specifications, and other information in this manual were created based on the latest model at the time of publication.

The parts names used in this manual are unified into names representing the functions of the parts. Therefore, it does not necessarily correspond to the names used in other materials (parts list, operators manual etc.) and the name on the label / identification plates on the product.

Kubota reserves the right to change all information at any time without notice.

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SUPPLEMENTARY INFORMATION

Model name and related manuals

This manual applies to the following model.

Model name
Z231KW-AU

RECORD OF REVISIONS

For pdf, use search function [Search word] to find all the revised locations.

Last digit of the code No.	Month of revision	Main revised point and corrective measure [Search word]	Reference page
1	2021 June	Revised reassembly procedure for HST tension spring	4-11 5-11
		Added transaxle oil specification to lubricants and fuel table	3-1

CONTENTS

1. SAFETY

SAFETY FIRST.....	1-1
1. Working precautions.....	1-1
2. Preparing for emergencies.....	1-1
3. Working cautions.....	1-2
4. Starting machine safely.....	1-2
5. Preventing fires.....	1-3
6. Preventing acid burns.....	1-3
7. Avoiding high pressure fluid.....	1-3
8. Avoiding hot exhaust.....	1-4
SAFETY DECALS.....	1-5
1. Safety decals.....	1-5
2. Care of danger, warning and caution labels.....	1-9

2. GENERAL

GENERAL PRECAUTIONS.....	2-1
TIGHTENING TORQUES.....	2-3
1. General use screws, bolts, and nuts.....	2-3
2. Stud bolts.....	2-3
3. Hydraulic fittings.....	2-4
3.1 Hydraulic hose fittings.....	2-4
3.2 Hydraulic pipe cap nuts.....	2-4
3.3 Adapters, elbows, and others.....	2-5
4. Metric screws, bolts and nuts.....	2-6
5. American standard screws, bolts and nuts with UNC or UNF threads.....	2-6
6. Plugs.....	2-6
PRODUCT IDENTIFICATION.....	2-7
SPECIFICATIONS.....	2-9
1. Specifications for Z231KW-AU.....	2-9
2. Specifications for RCK42P-122Z.....	2-11
DIMENSIONS.....	2-13
HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING.....	2-15
1. Handling wire harness.....	2-15
2. Handling the battery.....	2-16
3. Handling fuses.....	2-17
4. Handling connectors.....	2-17
5. Wiring color.....	2-18
6. Handling of circuit tester.....	2-18
IMPLEMENT LIMITATIONS.....	2-19
SPECIAL TOOLS.....	2-21
1. Special tools for machine.....	2-21
1.1 Spanner wrench.....	2-21

3. MAINTENANCE

LUBRICANTS AND FUEL.....	3-1
SERVICE INTERVALS.....	3-3
CHECK AND MAINTENANCE.....	3-5
1. Daily check.....	3-5
1.1 Checking engine oil level.....	3-5
1.2 Checking amount of fuel and refueling.....	3-6
1.3 Checking and cleaning the air intake screen.....	3-7
1.4 Checking the tire pressure.....	3-7
1.4.1 Inflation pressure.....	3-7
1.5 Checking movable parts.....	3-8
2. Check points every 50 hours.....	3-8

2.1	Checking engine start system	3-8
2.2	Checking OPC system	3-9
2.3	Checking the muffler and spark arrester (if equipped)	3-9
3.	Check points of every 100 hours	3-9
3.1	Changing engine oil	3-9
3.2	Cleaning the air cleaner paper element	3-10
3.3	Cleaning engine shroud	3-11
3.4	Checking the spark plug	3-12
3.5	Checking the fuel filter	3-12
3.6	Checking the battery condition	3-13
3.6.1	Charging the battery	3-14
3.6.2	Storing the battery	3-15
3.7	Adjusting the throttle cable	3-15
3.8	Adjusting the choke cable	3-15
4.	Check points of every 200 hours	3-16
4.1	Replacing engine oil filter	3-16
4.2	Replacing the air cleaner paper element	3-16
5.	Check points of every 300 hours	3-17
5.1	Cleaning combustion chambers	3-17
5.2	Checking and adjusting engine valve clearance	3-17
6.	Check points of every 500 hours	3-17
6.1	Adjusting the electric clutch	3-17
7.	Check points of every 1 year	3-18
7.1	Replacing fuel filter	3-18
7.2	Checking fuel lines	3-18
7.3	Checking the muffler and spark arrester (if equipped)	3-19
7.4	Replacing spark plug	3-19
7.5	Checking and adjusting engine valve clearance	3-19
8.	Check points of every 4 years	3-19
8.1	Replacing fuel line	3-19
9.	Service as required	3-19
9.1	Replacing fuses	3-19
9.2	Checking and replacing blade	3-20
9.3	Replacing mower belt	3-21

4. ENGINE

MECHANISM	4-1
1. Structure of engine	4-1
2. Fuel system	4-2
2.1 Structure of fuel system	4-2
3. Lubrication system	4-3
4. Cooling system	4-3
SERVICING	4-5
1. Troubleshooting for engine	4-5
2. Service specifications for engine	4-8
3. Tightening torques for engine	4-9
4. Checking and adjusting	4-10
5. Disassembling and assembling	4-10
5.1 Separating engine	4-10
5.1.1 Removing battery	4-10
5.1.2 Removing tension spring	4-10
5.1.3 Removing electric clutch	4-10
5.1.4 Removing HST pulley	4-11
5.1.5 Removing rear guard	4-12
5.1.6 Disconnecting fuel hoses	4-13
5.1.7 Disconnecting cables	4-13
5.1.8 Disconnecting wire harness	4-14
5.1.9 Removing engine	4-15

5.1.10 Removing muffler	4-16
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5. TRANSAXLE

MECHANISM	5-1
1. Function of transaxle	5-1
2. Hydraulic circuit of transaxle	5-1
3. Structure of transaxle	5-2
4. Transaxle specification	5-3
5. Parking brake	5-4
5.1 Structure of parking brake	5-4
SERVICING	5-5
1. Troubleshooting for transaxle	5-5
2. Service specifications for transaxle	5-7
3. Tightening torques for transaxle	5-8
4. Checking and adjusting	5-9
4.1 Motion control lever	5-9
4.1.1 Adjusting HST neutral	5-9
4.1.2 Adjusting maximum speed	5-9
4.1.3 Adjusting motion control lever alignment	5-10
5. Disassembling and assembling	5-11
5.1 Separating transaxle	5-11
5.1.1 Removing rear wheel	5-11
5.1.2 Loosening HST belt	5-11
5.1.3 Disconnecting rods	5-11
5.1.4 Separating transaxle	5-12
5.2 Disassembling transaxle	5-12
5.2.1 Removing hub	5-12
5.2.2 Draining transaxle oil	5-13
5.2.3 Purging transaxle	5-14
5.2.4 Removing brake arm assembly	5-14
5.2.5 Removing control arm assembly	5-15
5.2.6 Removing fan and pulley	5-15
5.2.7 Removing side cover	5-15
5.2.8 Removing axle shaft, reduction gears, and expansion plate	5-17
5.2.9 Removing input shaft	5-18
5.2.10 Removing bypass arm	5-19
5.2.11 Removing swash plate	5-19
5.2.12 Removing center section	5-20
5.2.13 Removing center section filter	5-21
5.2.14 Removing cylinder blocks	5-21
5.3 Removing fuel tank	5-22
5.3.1 Removing battery	5-22
5.3.2 Removing seat	5-23
5.3.3 Removing R.H. fender	5-23
5.3.4 Removing front cover	5-24
5.3.5 Removing fuel tank	5-24
5.4 Removing ROPS	5-24
5.4.1 Removing battery	5-24
5.4.2 Removing seat	5-25
5.4.3 Removing R.H. fender	5-26
5.4.4 Removing L.H. fender	5-26
5.4.5 Removing ROPS	5-26
5.5 Removing motion control lever	5-27
5.5.1 Removing battery	5-27
5.5.2 Removing seat	5-27
5.5.3 Removing motion control lever	5-27

6. FRONT AXLE

MECHANISM	6-1
1. Structure of front axle	6-1
SERVICING	6-3
1. Troubleshooting for front axle	6-3
2. Tightening torques for front axle	6-4
3. Disassembling and assembling	6-5
3.1 Separating front wheel and wheel bracket	6-5
3.1.1 Removing front wheel	6-5
3.1.2 Removing wheel bracket	6-5
7. LIFT SYSTEM	
MECHANISM	7-1
1. Structure of lift system	7-1
SERVICING	7-3
1. Troubleshooting for lift system	7-3
2. Tightening torques for lift system	7-4
3. Disassembling and assembling	7-5
3.1 Removing link shafts	7-5
3.1.1 Removing mower	7-5
3.1.2 Removing cam	7-5
3.1.3 Removing lift shafts	7-5
8. ELECTRICAL SYSTEM	
MECHANISM	8-1
1. Wiring diagram	8-1
2. Starting system	8-2
2.1 Electrical circuit of starting system	8-2
2.1.1 Safety switch	8-3
2.1.2 Relays	8-5
3. Charging system	8-6
3.1 Electrical circuit of charging system	8-6
3.2 Electrical circuit of gauge system	8-7
3.2.1 Hour meter	8-8
3.2.2 PTO clutch	8-8
3.2.3 PTO switch	8-8
SERVICING	8-9
1. Troubleshooting for electrical system	8-9
2. Service specifications for electrical system	8-12
3. Checking and adjusting	8-13
3.1 Battery	8-13
3.1.1 Checking battery voltage	8-13
3.1.2 Checking battery terminal connection	8-13
3.1.3 Checking battery specific gravity	8-13
3.2 Main switch	8-14
3.2.1 Checking connector voltage	8-14
3.2.2 Checking terminal continuity	8-14
3.3 Safety switches	8-15
3.3.1 Checking control of safety switches	8-15
3.3.2 Safety switch continuity test	8-18
3.3.3 Motion control lever switch	8-18
3.3.4 Parking brake switch	8-19
3.3.5 PTO switch	8-20
3.3.6 Seat switch	8-21
3.4 Electric PTO clutch	8-21
3.4.1 Checking electric PTO clutch (coil resistance)	8-21
3.4.2 Checking electric PTO clutch (Electromagnetic action)	8-21
3.4.3 Checking electric PTO clutch clearance	8-22
3.5 Relays	8-22

3.5.1 Checking relay	8-22
3.6 Hour meter	8-23
3.6.1 Checking hour meter harness.....	8-23
3.6.2 Checking hour meter terminal continuity	8-23

9. MOWER

MECHANISM	9-1
1. Structure of mower	9-1
2. Power transmission flow for mower	9-3
SERVICING	9-5
1. Troubleshooting for mower	9-5
2. Service specifications for mower	9-7
3. Tightening torques for mower	9-8
4. Checking and adjusting	9-9
4.1 Leveling mower deck	9-9
4.1.1 Adjusting anti-scalp rollers	9-9
4.1.2 Checking mower deck level (side-to-side)	9-9
4.1.3 Adjusting mower deck level (side-to-side)	9-10
4.1.4 Checking mower deck level (front-to-rear).....	9-10
4.1.5 Adjusting mower deck level (front-to-rear).....	9-11
5. Disassembling and assembling	9-12
5.1 Dismounting mower deck	9-12
5.1.1 Disconnecting mower belt.....	9-12
5.1.2 Disconnecting lift links	9-12
5.2 Mounting mower deck	9-12
5.2.1 Connecting lift link.....	9-12
5.2.2 Connecting mower belt	9-13
5.3 Disassembling mower deck	9-13
5.3.1 Removing mower belt cover	9-13
5.3.2 Removing tension pulley and mower belt	9-14
5.3.3 Removing tension arm and idler pulleys.....	9-14
5.3.4 Removing blade.....	9-15
5.3.5 Removing blade shaft and pulley holder.....	9-15
5.3.6 Removing front plates	9-16

1. SAFETY

SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.

DANGER

- Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

- Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

- Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

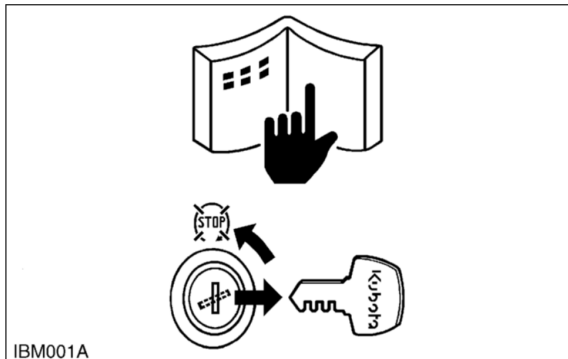
■ IMPORTANT

- Indicates that equipment or property damage could result if instructions are not followed.

■ NOTE

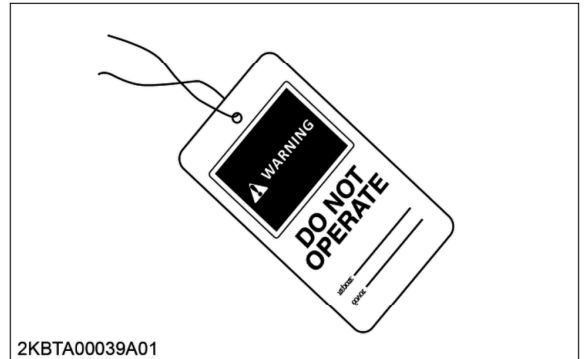
- Gives helpful information.

1. Working precautions



- Understand all safety instructions and safety labels in this manual.
- Park the machine on a stable and level ground then lower the attachment to check the machine safely.

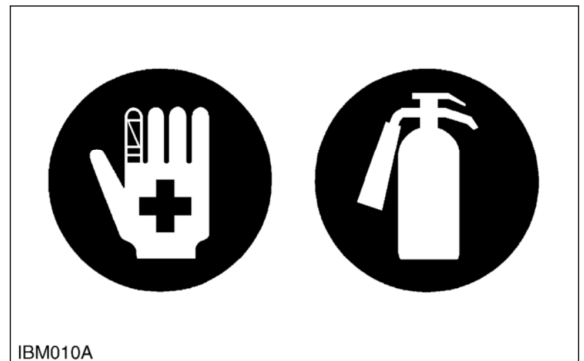
- Stop the engine and remove the key when leaving the operator's seat for cleaning, maintenance, and servicing.



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- Hang a DO NOT OPERATE tag near the operator's seat.
- Do not use worn or cracked tools. Use tools in a proper way with enough strength.
- In regards to the facility which is used in the workshop, follow each safety instruction.

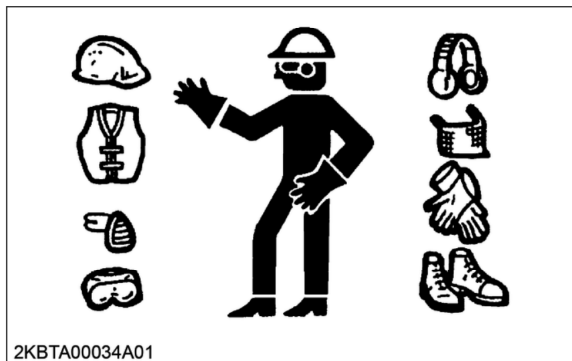
2. Preparing for emergencies



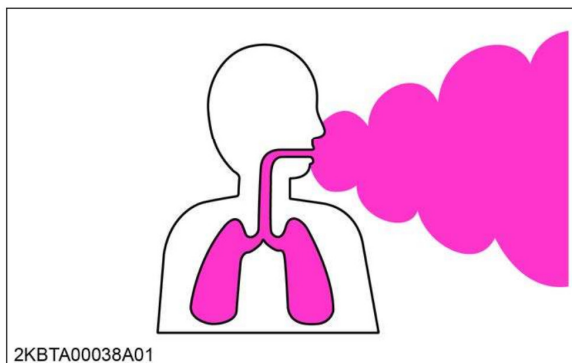
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- Keep a first aid kit and fire extinguisher ready at all times.
- Keep emergency numbers near your telephone at all times.

3. Working cautions



- Wear proper service attire when performing work. Do not wear loose clothing as they could get caught on machine components.
- Wear the proper protective equipment when working around the machine. For example helmet, eye protector and protective shoes.
- Do not work around the machine if you are tired or have consumed alcohol or drugs.



- Keep the machine away from obstacles and hazardous materials.
- Ensure the working environment is properly ventilated.
- Do not allow third parties to come near the machine.

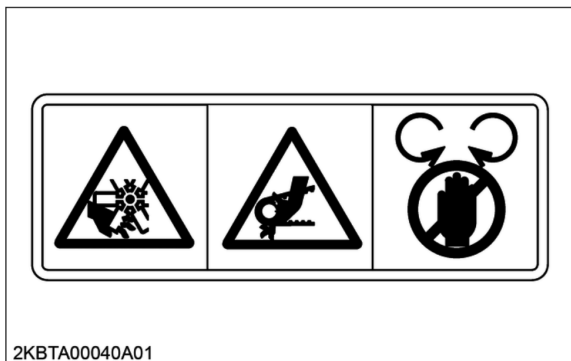


- Make sure you have the support of the 3 points with both hands holding the handle and one foot at the step when getting on and off the machine.
- When working under the machine, make sure the machine does not move back and forth or side-to-side.
- When working under the machine, provide secure support for the machine.
- When using a hydraulic jack, always use with a rigid rack to prevent the machine from falling.

4. Starting machine safely

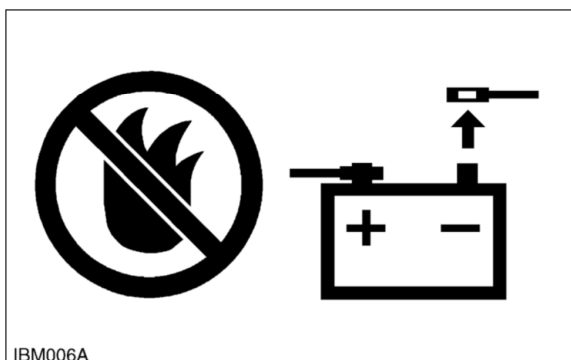


- Do not do the following work when starting the engine.
 - Short across starter terminals.
 - Bypass the safety start switch.
- Make sure there are no bystanders or obstacles present around the machine before starting the engine.
- Do not start the engine unless the operator is seated in the operator's seat.
- Make sure that the pilot levers are in neutral before starting the engine.



- Lock the covers before starting the machine.
- Keep away from rotating and moving objects.
- Keep tools and waste cloth away from rotating and moving objects.

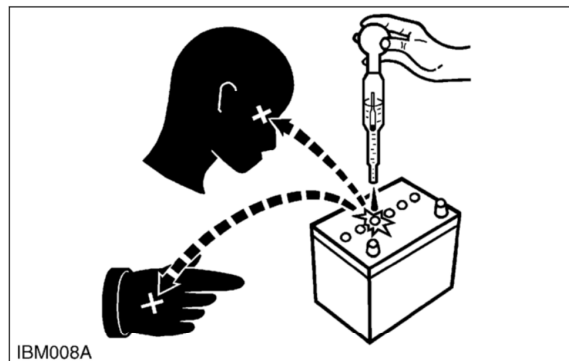
5. Preventing fires



- Keep fire (welding sparks, grinding sparks, cigarettes) away from the fuel.
- Wipe the fuel off when spilled.
- Keep fire (welding sparks, grinding sparks, cigarettes) away from the battery. The battery produces oxygen and hydrogen gas that are flammable.
- Disconnect the negative (-) terminal first when disconnecting the battery cable.

- Connect the positive (+) terminal first when connecting the battery cable.
- Do not short circuit the machine.
- Do not splash the hydraulic oil on the exhaust components.

6. Preventing acid burns



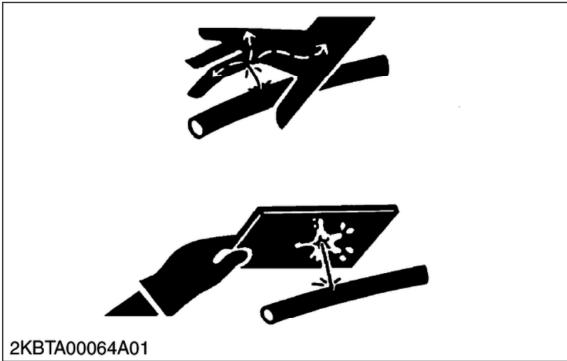
- Keep the electrolyte away from your eyes, hands, and clothes. Sulfuric acid in the battery electrolyte is poisonous: it can cause blindness and is strong enough to burn your skin and clothing. If you spill electrolyte on yourself, clean yourself with water and get a medical aid immediately.

7. Avoiding high pressure fluid



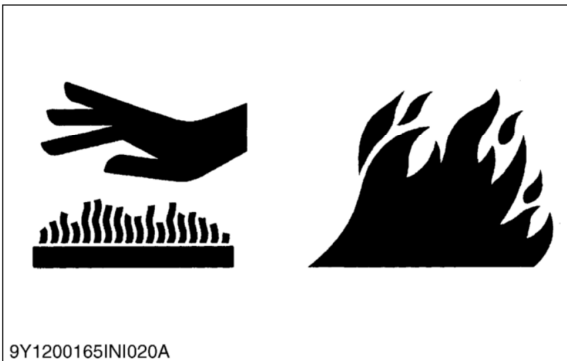
- Keep away from high pressure fluids bursting from a hose or pipe. The fluid can penetrate your skin and cause serious injuries.
- Get a medical aid immediately if an accident occurs.

1. SAFETY

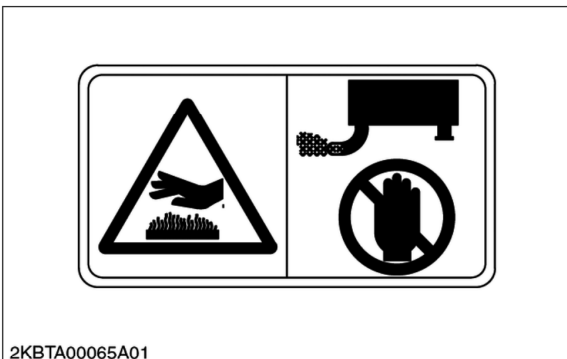


- Release residual pressure in the hydraulic circuit before removing the hydraulic components.
- Pay attention when releasing pressure in hydraulic circuit, because the machine or attachment might move unexpectedly.
- Check the coolant temperature and release the pressure before opening the radiator cap.

8. Avoiding hot exhaust



- Avoid skin exposure and contact with hot exhaust gas or components.
- Exhaust gas and components are extremely hot during operation.



- Do not work immediately after stopping the engine. The engine, muffler, radiator, and hydraulic components are extremely hot.
- Do not remove caps and plugs soon after stopping the engine. The temperature and pressure of the coolant, hydraulic oil, and fuel are still high.