

Product: 2010 Kubota WSM KX057-4,U55,U55-4 Excavator Service Repair Workshop Manual

Full Download: <https://www.arespairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/>

[7-4u55u55-4-excavator-service-repair-workshop-manual/](https://www.arespairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/)

# WSM

---

## WORKSHOP MANUAL KUBOTA EXCAVATOR

# KX057-4 U55, U55-4

---

# Kubota

Sample of manual. Download All 739 pages at:

<https://www.arespairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/>

# CONTENTS

TO THE READER	5. CONTROL VALVE.....	3-M19
TO THE READER	6. SWIVEL MOTOR.....	3-M27
INFORMATION	7. TRAVEL MOTOR.....	3-M33
CONTENTS	8. HYDRAULIC CYLINDER.....	3-M44
INFORMATION	9. PILOT VALVE.....	3-M52
1. SAFETY FIRST.....	10. UNLOAD VALVE.....	3-M67
2. SAFETY DECALS.....	11. PROPORTIONAL VALVE FOR	
GENERAL	ANGLE BLADE CONTROL.....	3-M71
CONTENTS	12. SERVICE PORT.....	3-M73
GENERAL	SERVICING	
1. CHECKING BACHOE	1. PUMP.....	3-S1
IDENTIFICATION.....	2. CONTROL VALVE.....	3-S22
2. ENGINE IDENTIFICATION.....	3. SWIVEL MOTOR.....	3-S41
3. GENERAL PRECAUTIONS.....	4. SWIVEL JOINT.....	3-S55
4. HANDRING PRECAUTIONS FOR	5. TRAVEL MOTOR.....	3-S59
ELECTRICAL PARTS AND WIRING.....	6. HYDRAULIC CYLINDER.....	3-S91
5. TIGHTNING TORQUES.....	7. PILOT VALVE (CONTROL).....	3-S105
6. NEW PRODUCT FEATURE.....	8. PILOT VALVE (TRAVEL).....	3-S114
7. NEW FEATURES OUTLINE.....	9. PILOT VALVE (SWING).....	3-S125
8. QUALITY SPECIFICATIONS.....	10. PILOT VALVE (BLADE).....	3-S133
9. WATER AND OIL QUANTITY.....	11. UNLOAD VALVE.....	3-S140
10. DESCRIPTION OF PARTS.....	12. TPSS VALVE.....	3-S145
11. MAINTENANCE CHECK LIST.....	13. THIRD LINE VALVE ASSEMBLY.....	3-S147
MACHINE BODY	14. ROUTING OF HYDRAULIC HOSES.....	3-S149
CONTENTS	15. HYDRAULIC DEVICE	
SERVICING	PERFORMANCE MEASUREMENT.....	3-S180
1. FRONT OPERATING MACHINE.....	16. TROUBLESHOOTING.....	3-S192
2. UPPER SWIVEL.....	ELECTRICAL SYSTEM	
3. CHASSIS.....	CONTENTS	
ENGINE	SERVICING	
CONTENTS	1. ELECTRONIC DEVICE LAYOUT.....	4-S1
GENERAL	2. WIRING CIRCUIT.....	4-S2
1. ENGINE.....	3. TROUBLESHOOTING (START-UP	
2. SPECIAL TOOLS.....	EQUIPMENT VERSION).....	4-S13
MECHANISM	4. INSPECTIONS.....	4-S15
1. FEATURE.....	5. METER PANEL OPERATION	
2. ENGINE BODY.....	PROCEDURES.....	4-S22
3. LUBRICATING SYSTEM.....	6. TROUBLESHOOTING (METER	
4. COOLING SYSTEM.....	PANEL EDITION).....	4-S85
5. FUEL SYSTEM.....	CABIN	
SERVICING	CONTENTS	
1. TROUBLESHOOTING.....	MECHANISM	
2. SERVICING SPECIFICATIONS.....	1. AIR CONDITIONING SYSTEM.....	5-M1
3. TIGHTENING TORQUES.....	2. WIPER.....	5-M20
4. CHECKING, DISASSEMBLING AND	SERVICING	
SERVICING.....	1. TROUBLESHOOTING.....	5-S1
2-S13	2. MAINTENANCE AND	
HYDRAULIC SYSTEM	SERVICE RELATED SPECIFICATIO	
CONTENTS	NS.....	5-S4
MECHANISM	3. TORQUE.....	5-S5
1. DIAGRAM OF HYDRAULIC CIRCUIT	4. PRECAUTIONS WHEN REPAIRING	
[KX057-4, U55, U55-4 STANDARD	THE REFRIGERANT SYSTEM.....	5-S6
SPECIFICATION (ANGLE BLADE	5. INSPECTING AND CHARGING THE	
OPTION)].....	REFRIGERANT SYSTEM.....	5-S12
2. HYDRAULIC DEVICE LAYOUT.....	6. INSPECTION AND DISASSEMBLY.....	5-S21
3. FEATURES.....	7. CABIN REMOVAL AND MOUNTING.....	5-S38
4. PUMP.....	8. WINDOW WASHER.....	5-S40

Sample of manual. Download All 739 pages at:

<https://www.arepairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/>

9. LIGHTING DEVICES (CAB WORK LIGHT, INTERIOR LIGHT) .....	5-S43
10. REMOVAL AND INSTALLATION OF GLASS .....	5-S46
11. FRONT WINDOW .....	5-S49

# TO THE READER

This Workshop Manual provides service personnel with information about the mechanisms, service and maintenance of the construction machinery. This Workshop Manual is divided into 3 sections, General, Mechanisms and Service.

## ■ General

This section contains information such as engine and equipment ID numbers, general precautions, maintenance schedules, inspections and maintenance items and special tools.

## ■ Mechanisms

This section describes the structure of mechanisms and explains their functions. Be sure that you fully understand this Mechanisms section prior to performing any service work, such as troubleshooting or when performing any disassembly or assembly work.

## ■ Service

This section contains information and procedures for performing maintenance on the backhoe, such as troubleshooting, service specification tables, torque specifications, items to be inspected and adjusted, disassembly and assembly procedures, as well as precautions, maintenance standard values and usage limits.

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

Please be aware that changes to the content may be made without prior notice.

## ■ NOTE

### • Corresponding model list

Machine Model		Engine Model
KX057-4 U55	For North America and Canada	V2607-DI-E3-BH
KX057-4 U55-4	For Australia	

January 2010

© KUBOTA Corporation 2010

**Record of Revisions**

<b>Last digit of the Code No.</b>	<b>Date</b>	<b>Main Revised Point and Corrective Measures</b>	<b>Person-in-charge</b>
1			
2			
3			
4			

# **I INFORMATION**

# INFORMATION

## CONTENTS

- 1. SAFETY FIRST ..... I-1
- 2. SAFETY DECALS ..... I-4
  - [1] US, CA VERSION ..... I-4
  - [2] AU VERSION ..... I-10

# 1. SAFETY FIRST

**⚠ 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 repair 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, may result in minor or moderate injury.

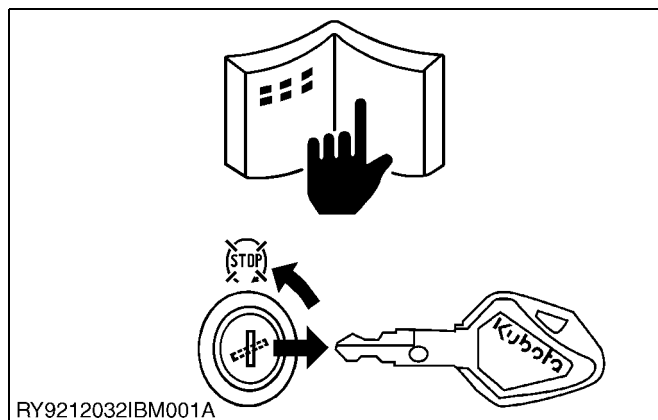
**■ IMPORTANT**

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

**■ NOTE**

- Gives helpful information.

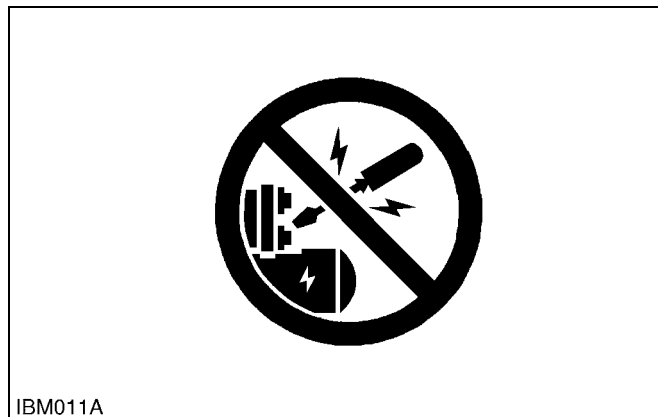
RY9212007INI0001US0



## BEFORE SERVICING AND REPAIRING

- Read all instructions and safety instructions in this manual and on your engine safety decals.
- Clean the work area and engine.
- Park the machine on a stable and level ground.
- Let the temperature of the engine decrease before you start a job.
- Stop the engine, then remove the key.
- Disconnect the battery negative cable.
- Hang a "DO NOT OPERATE" tag in the operator station.

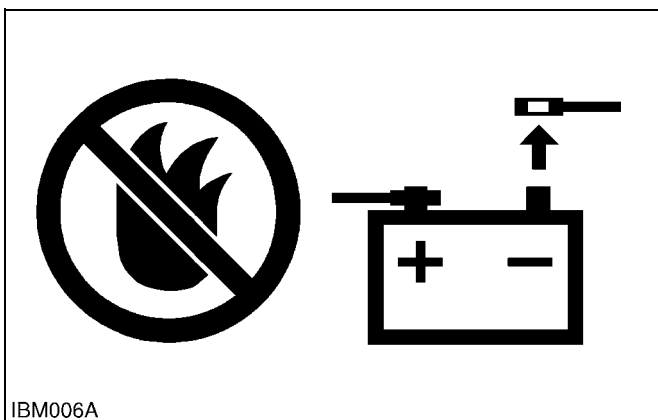
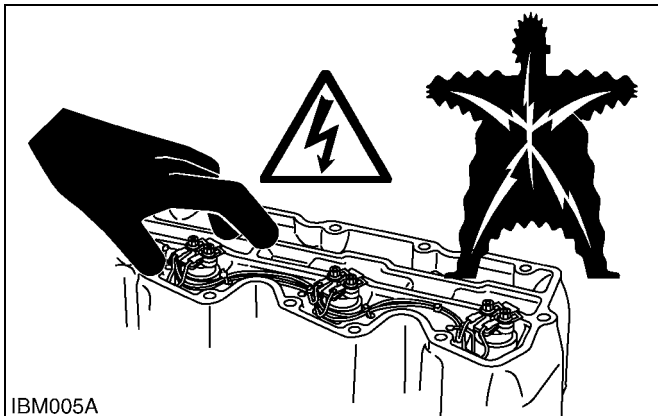
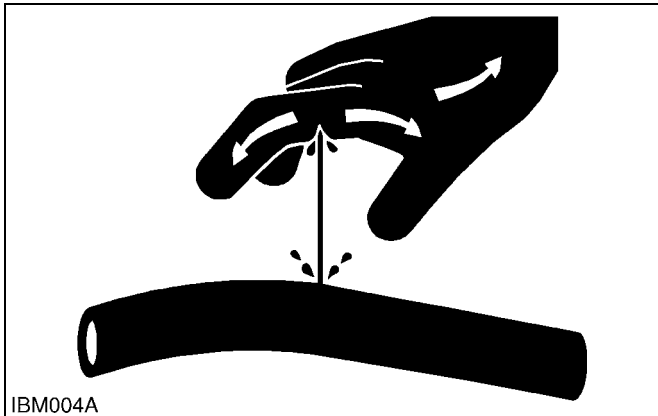
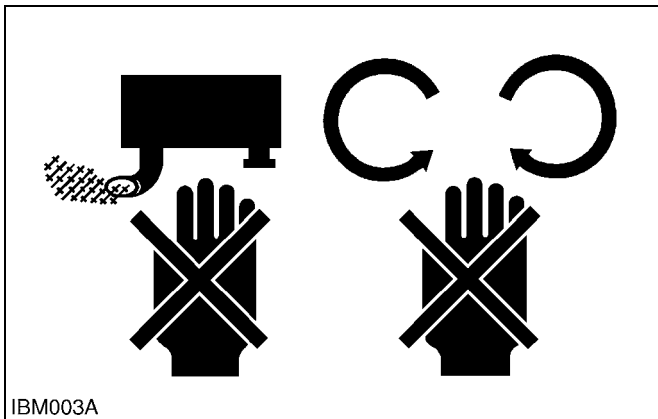
RY9212007INI0002US0



## SAFETY STARTING

- Do not do the procedures below when you start the engine.
  - short across starter terminals
  - bypass the safety start switch
- Do not make unauthorized modifications to the engine. This can cause damage and decrease the engine life.

RY9212007INI0003US0



**SAFETY WORKING**

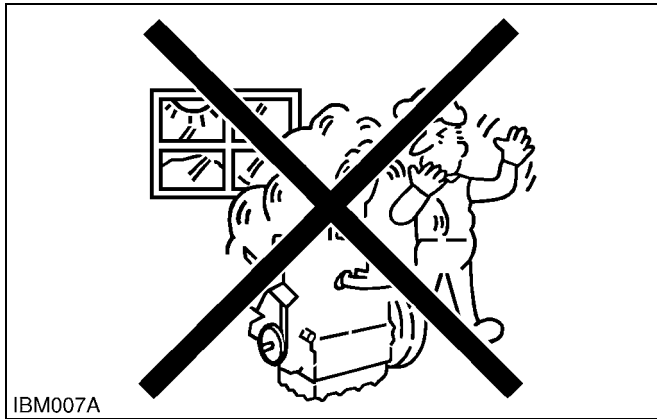
- Do not use the machine after you consume alcohol or medication or when you are tired.
- Put on applicable clothing and safety equipment.
- Use applicable tools only. Do not use alternative tools or parts.
- When 2 or more persons do servicing, make sure that you do it safely.
- Do not touch the hot parts or parts that turn when the engine operates.
- Do not remove the radiator cap when the engine operates, or immediately after it stops. If not, hot water can spout out from the radiator. Only remove the radiator cap when it is at a sufficiently low temperature to touch with bare hands. Slowly loosen the cap to release the pressure before you remove it fully.
- Released fluid (fuel or hydraulic oil) under pressure can cause damage to the skin and cause serious injury. Release the pressure before you disconnect hydraulic or fuel lines. Tighten all connections before you apply the pressure.
- Do not open a fuel system under high pressure. The fluid under high pressure that stays in fuel lines can cause serious injury. Do not disconnect or repair the fuel lines, sensors, or any other components between the fuel pump and injectors on engines with a common rail fuel system under high pressure.
- Put on an applicable ear protective device (earmuffs or earplugs) to prevent injury against loud noises.
- Be careful about electric shock. The engine generates a high voltage of more than DC100 V in the ECU and is applied to the injector.

RY9212007INI0004US0

**AVOID FIRES**

- Fuel is very flammable and explosive under some conditions. Do not smoke or let flames or sparks in your work area.
- To prevent sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- The battery gas can cause an explosion. Keep the sparks and open flame away from the top of battery, especially when you charge the battery.
- Make sure that you do not spill fuel on the engine.

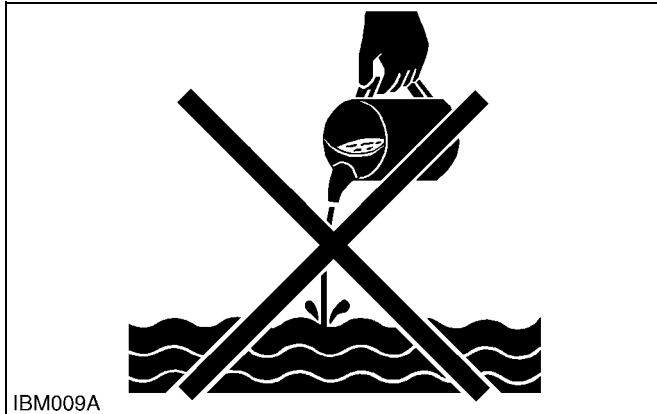
RY9212007INI0005US0



**KEEP A GOOD AIRFLOW IN THE WORK AREA**

- If the engine is in operation, make sure that the area has good airflow. Do not operate the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.

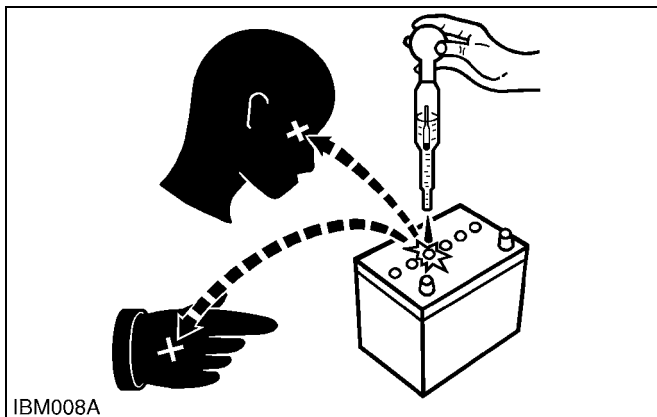
RY9212007INI0006US0



**DISPOSE OF FLUIDS CORRECTLY**

- Do not discard fluids on the ground, down the drain, into a stream, pond, or lake. Obey related environmental protection regulations when you discard oil, fuel, coolant, electrolyte and other dangerous waste.

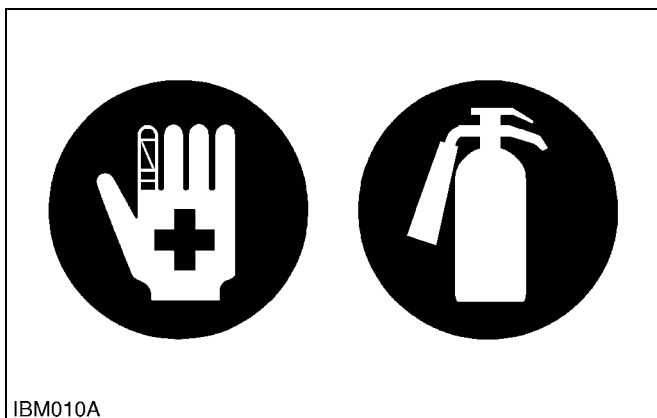
RY9212007INI0007US0



**PREVENT ACID BURNS**

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

RY9212007INI0008US0



**PREPARE FOR EMERGENCIES**

- Keep a first aid kit and fire extinguisher ready at all times.
- Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone at all times.

RY9212007INI0009US0

# 2. SAFETY DECALS

The following safety decals are installed on the machine.  
If a decal becomes damaged, illegible or is not on the machine, replace it. The decal part number is listed in the parts list.

RY9212007INI0010US0

## [1] US, CA VERSION

### DANGER, WARNING AND CAUTION LABELS

(1) Part No. 6C300-4744-1



1AGAIHFAP0690

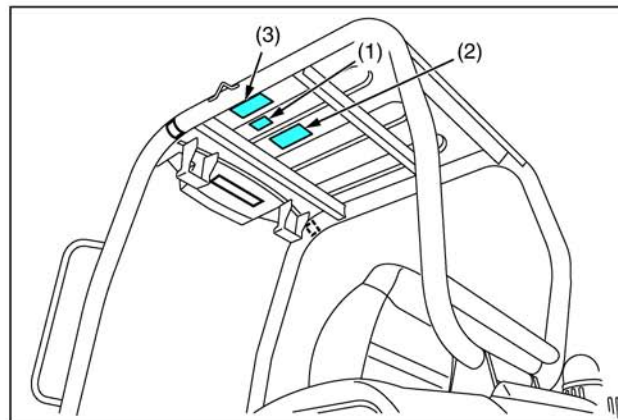
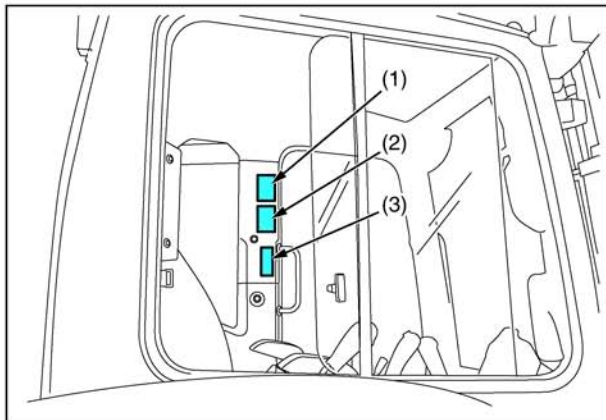
(2) Part No. RD809-5736-1



(3) Part No. RD809-5738-2



1BAAAARAP1000



RY9212050ICI001A

RY9212050INI0001US0

(1) Part No. RD809-5728-2

**CAUTION**

**IMPORTANT**

**TO AVOID PERSONAL INJURY :**

1. Read and understand operator's manual before attempting to start or operate the excavator. Read the manual of the attachment to do a correct operation safely when other attachments are installed instead of Kubota specified bucket.
2. Before starting engine, make sure all control levers are in neutral and the operating area is clear of all bystanders.
3. Never allow passengers on any part of the excavator while operating.
4. Know your work area before starting operation.
5. Check underground lines and cables. Stay off slopes too steep for safe operation.
6. Check for hidden holes, obstacles or drop-offs and overhangs.
7. Make sure all shields are in place and securely fastened.
8. Before dismounting from the machine, lower all attachment to the ground, stop the engine and remove the key.
9. Damaged ROPS must be replaced, not repaired or revised.

Never use boom, dipper, or bucket to hammer or beat sideways. Excavator is not intended for these usages.

1BAAA8BAP120E

(2) Part No. RD458-5737-1

**CAUTION**

**STOP**

**TO AVOID PERSONAL INJURY :**

Do not open engine hood before stopping engine. Only when engine does not stop with the key, Pull back this stop button and hold it until the engine stops.

(3) Part No. RD358-5747-1

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

- Do not cover raised load over people.
- It is forbidden to lift loads greater than those values mentioned in the lifting capacity table.
- The values mentioned in the table are valid only on even, hard grounds. When lifting on soft ground, the machine can tilt over due to the fact that the load is concentrated only on one side of the machine.
- The table is valid only on loads at the end of the arm without the bucket. In order to find the available loads for machines with bucket, the bucket weight must be subtracted from the value in the table.

The lifting capacities are based on ISO 10567 and do not exceed 75% of the static tilt load of the machine or 65% of the hydraulic lifting capacity of the machine.

The strokes are as follow:

- (i) The load point corresponds to the front bolt part of the arm.
- (ii) The machine positions are (i) over-front (blade down), (ii) over-front (blade up) and (iii) over-side.
- (iv) over-side.
- The operating cylinder is the boom cylinder.
- The bucket of the excavator, the hook, the sling and other lifting accessories are taken into consideration for the loads.

Machine with ROPS canopy and rubber crawler, without bucket.

LIFT POINT HEIGHT (ft)	LIFTING CAPACITY OVER-FRONT BLADE DOWN Unit=1000l bs					LIFTING CAPACITY OVER-FRONT BLADE UP Unit=1000l bs					LIFTING CAPACITY OVER-SIDE Unit=1000l bs				
	LIFT POINT RADIUS (ft)					LIFT POINT RADIUS (ft)					LIFT POINT RADIUS (ft)				
	MIN	4	10	16	MAX	MIN	4	10	16	MAX	MIN	4	10	16	MAX
12															
8			3.35	2.51	2.33			3.29	1.53	1.43			2.68	1.27	1.19
4			4.81	2.70	2.47			2.98	1.47	1.31			2.39	1.22	1.09
GL			5.29	2.75	2.57			2.81	1.43	1.35			2.24	1.18	1.11
-4	3.59	6.03	4.66			3.59	6.03	2.81			3.59	6.03	2.23		
-8			2.48					2.48					2.34		

(4) Part No. RD809-5727-1[CAB]

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

Before moving the excavator, know the location of the DOZER BLADE. The excavator will travel in the direction of the dozer blade when drive levers are moved away from the operator.

DO NOT OPERATE WITHOUT ROPS. YOU COULD BE CRUSHED.

USE SEAT BELT.

(4) Part No. RD418-5727-4[CANOPY]

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

Before moving the excavator, know the location of the DOZER BLADE. The excavator will travel in the direction of the dozer blade when drive levers are moved away from the operator.

DO NOT OPERATE WITHOUT ROPS. YOU COULD BE CRUSHED.

USE SEAT BELT.

(5) Part No. RD358-5745-1

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH**

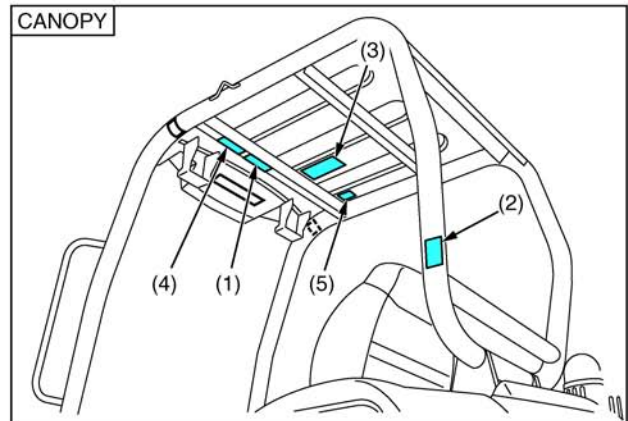
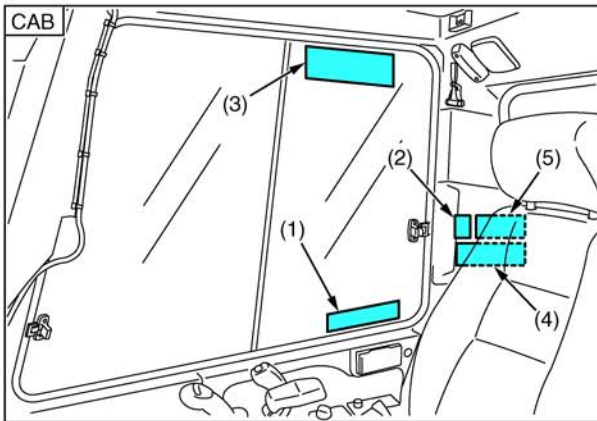
Do not push the dozer control lever into the float position while the machine is supported by the dozer blade.

(5) Part No. RD138-7596-2(Angle blade type)

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH**

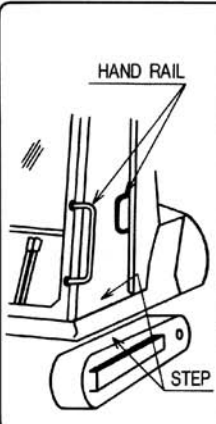
Do not push the dozer control lever into the float position while the machine is supported by the dozer blade.



RY9212050IC1002A

RY9212050INI0003US0

(1) Part No. RC108-5765-2 [CAB]



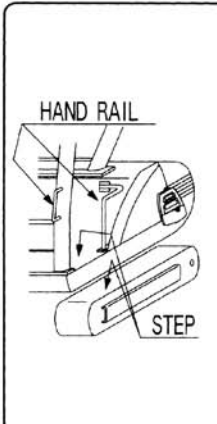
**CAUTION**

**TO AVOID PERSONAL INJURY:**  
MOUNT AND DISMOUNT SAFELY  
WHEN ENTERING OR LEAVING  
THE OPERATOR'S COMPARTMENT.

1. Maintain a three-point contact with the steps and handrails.
2. Face the machine.
3. Never jump on or off the machine.
4. Never attempt to mount or dismount a moving machine.
5. Never use control levers as handles.

1BAAGAAP0140

(1) Part No. RD118-5763-1 [Canopy]



**CAUTION**

**TO AVOID PERSONAL INJURY:**  
MOUNT AND DISMOUNT SAFELY  
WHEN ENTERING OR LEAVING  
THE OPERATOR'S COMPARTMENT.

1. Maintain a three-point contact with the steps and handrails.
2. Face the machine.
3. Never jump on or off the machine.
4. Never attempt to mount or dismount a moving machine.
5. Never use control levers as handles.

1BAAGAAP0160

(2) Part No. RC418-5753-2

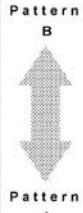


**CAUTION**

**TO AVOID PERSONAL INJURY:**  
Lock control lever before  
leaving compartment.

1BAAABYAP138E

(3) Part No. RC418-5732-3

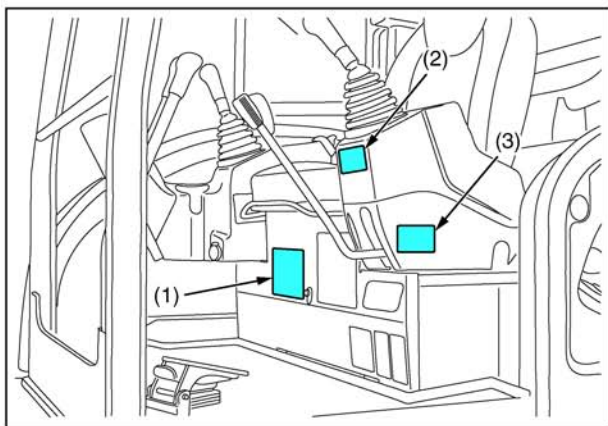


**CAUTION**

**TO AVOID PERSONAL INJURY:**

1. Study control lever pattern A and pattern B. Then choose the one which is most familiar.
2. Position the pattern selector lever in either the lowered position (pattern A) or the upward position (pattern B).
3. Engage lever lock to prevent accidental pattern change.
4. Familiarize yourself with the pattern selected by operating slowly.

1BAAGAAP0170

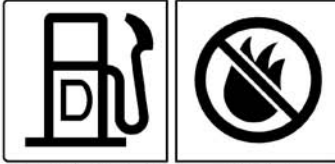


RY9212050ICI003A

RY9212050INI0004US0

(1) Part No. RD148-5736-1

Diesel fuel only No fire

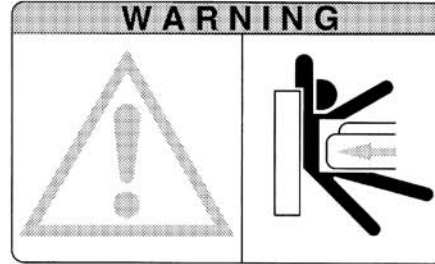


LOW SULFUR FUEL OR  
ULTRA LOW SULFUR  
FUEL ONLY

1BAAGAAP1000

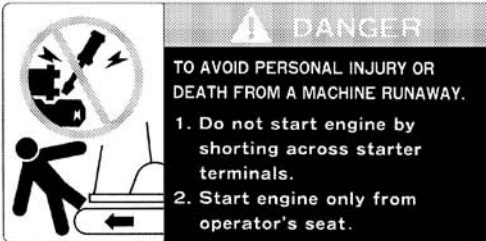
(2) Part No. RC418-5725-1

Do not allow any persons within the working range.



1BAAGAAP0240

(3) Part No. RC108-5718-1



1BAAGAAP0250

(4) Part No. RC108-5714-1

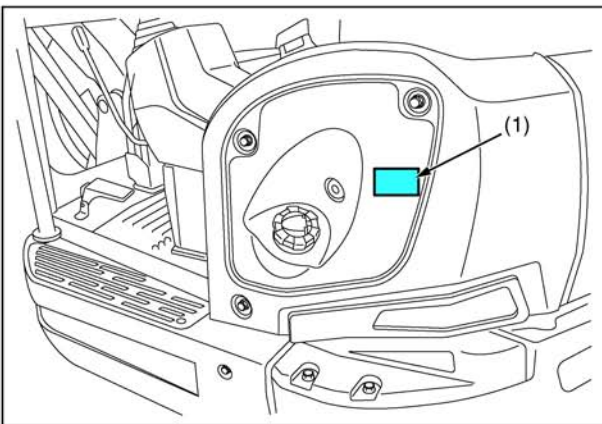
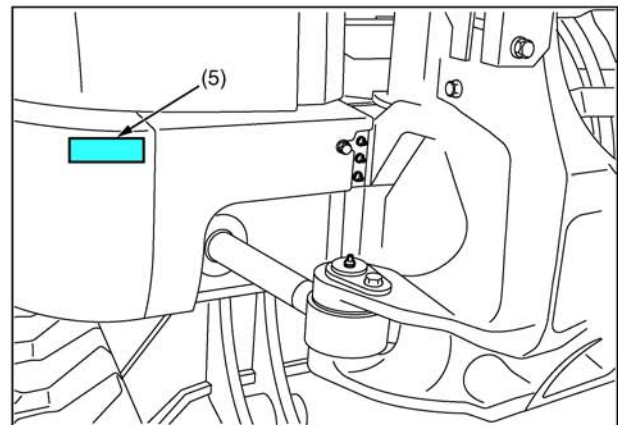


1BAAGAAP0260

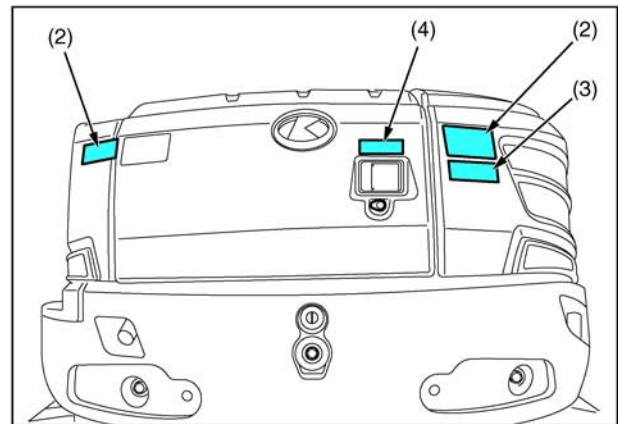
(5) Part No. RD118-5765-2



1BAAGAAP0310

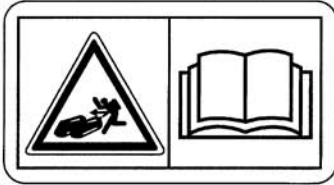


RY9212050ICI004A



RY9212050INI0005US0

- (1) Part No. RD809-5795-1  
Do not loosen the grease nipple completely or too quickly.



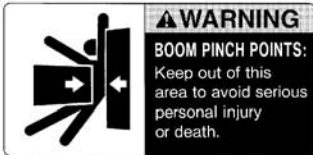
1BAABAMAP0010

- (2) Part No. RC108-5796-1 [Both sides]



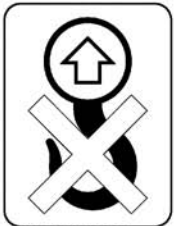
1BAAAQAP0940

- (3) Part No. 68328-5735-1 [Both sides]



1BAAGAAP0270

- (4) Part No. RB419-5796-1 [Both sides]

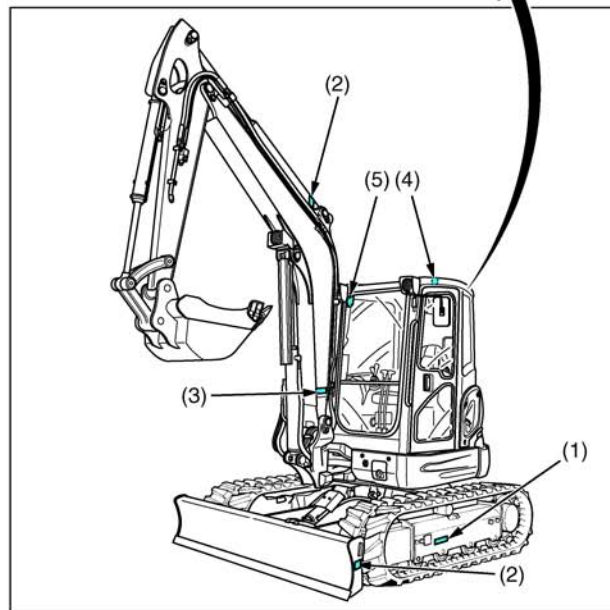
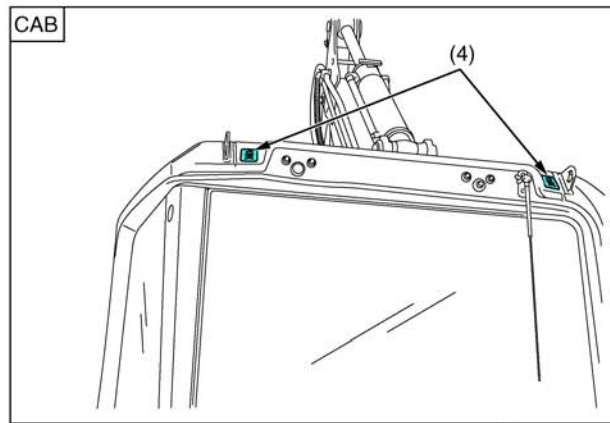
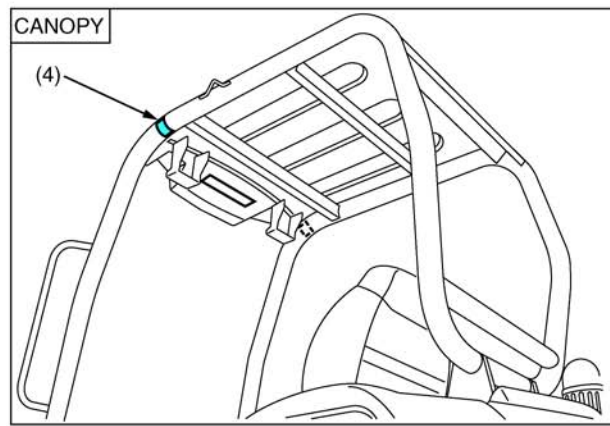


1BAABAUAP2720

- (5) Part No. RD358-5785-1 [CAB]



1BAAABYAP137E



RY9212050IC1005A

RY9212050INI0006US0

(1) Part No. TA040-4958-1

Do not touch hot parts such as exhaust etc.



1BAAGACAP0280

(2) Part No. RC418-5737-2

Keep away from fan and fan belt.



1BAAAQAP0880

(3) Part No. 6C040-5559-1

**DANGER EXPLOSIVE GASES**  
Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training.  
**KEEP VENT CAPS TIGHT AND LEVEL**  
**POISON CAUSES SEVERE BURNS**  
Contains sulfuric acid. Avoid contact with skin, eyes or clothing. In event of accident flush with water and call a physician immediately.  
**KEEP OUT OF REACH OF CHILDREN**

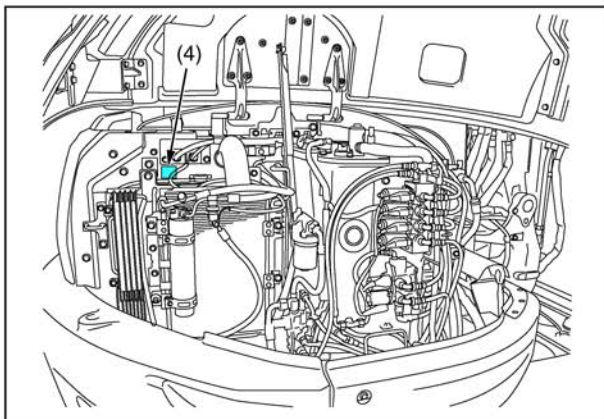
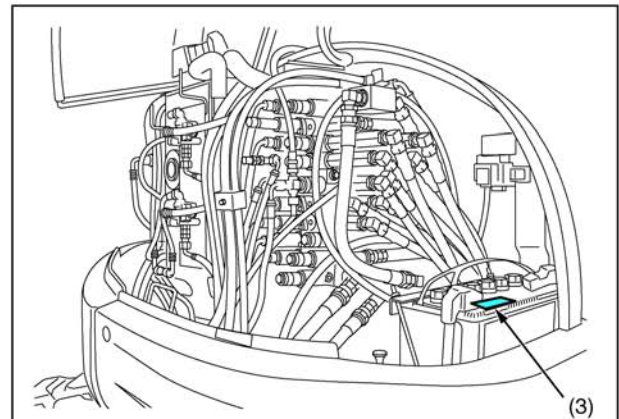
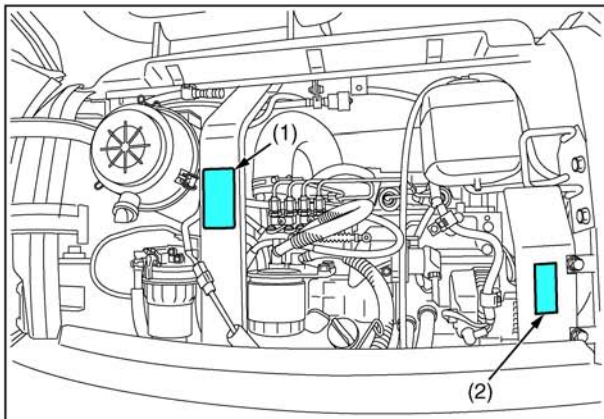
1BAAGAAP0360

(4) Part No. RC108-5754-1

To AVOID SCALDING  
Stop engine and allow radiator to cool before opening cap



RC108-5754A



RY92120501ICI006A

RY9212050INI0007US0

**CARE OF DANGER, WARNING AND CAUTION LABELS**

1. Keep danger, warning and caution labels clean and free from obstructing material.
2. Clean danger, warning and caution labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing danger, warning and caution labels with new labels from your KUBOTA dealer.
4. If a component with danger, warning and caution label(s) affixed is replaced with new part, make sure new label(s) is (are) attached in the same location(s) as the replaced component.
5. Mount new danger, warning and caution labels by applying on a clean dry surface and pressure any bubbles to outside edge.

RY9212007INI0015US0

## [2] AU VERSION

### DANGER, WARNING AND CAUTION LABELS

(2) Part No. RD809-5736-1

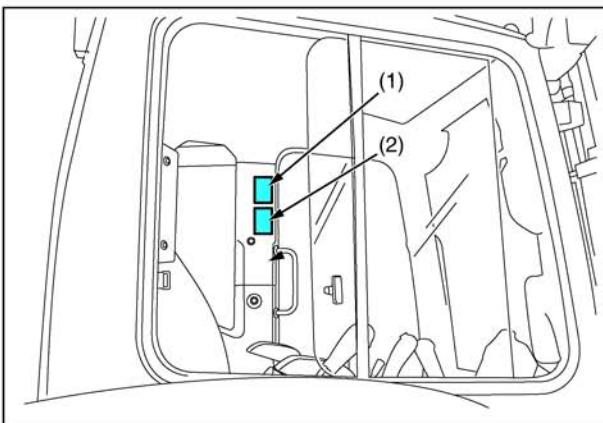


1BAAAAQAP0800

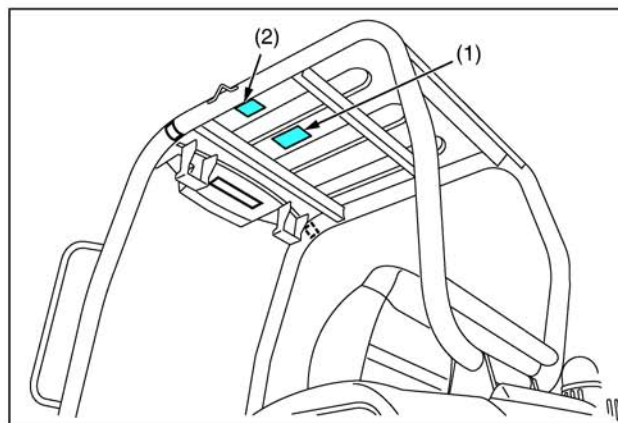
(2) Part No. RD809-5738-2



1BAAAAARAP1000



RY9212050IC1007A



RY9212050INI0002US0

(1) Part No. RD809-5728-2

**CAUTION**

**IMPORTANT**

**TO AVOID PERSONAL INJURY :**

1. Read and understand operator's manual before attempting to start or operate the excavator. Read the manual of the attachment to do a correct operation safely when other attachments are installed instead of Kubota specified bucket.
2. Before starting engine, make sure all control levers are in neutral and the operating area is clear of all bystanders.
3. Never allow passengers on any part of the excavator while operating.
4. Know your work area before starting operation.
5. Check underground lines and cables. Stay off slopes too steep for safe operation.
6. Check for hidden holes, obstacles or drop-offs and overhangs.
7. Make sure all shields are in place and securely fastened.
8. Before dismounting from the machine, lower all attachment to the ground, stop the engine and remove the key.
9. Damaged ROPS must be replaced, not repaired or revised.

Never use boom, dipper, or bucket to hammer or beat sideways. Excavator is not intended for these usages.

1BAAA8BAP120E

(2) Part No. RD458-5737-1

**CAUTION**

**STOP**

**TO AVOID PERSONAL INJURY :**

Do not open engine hood before stopping engine. Only when engine does not stop with the key, Pull back this stop button and hold it until the engine stops.

(3) Part No. RD358-5747-1

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

- Do not cover raised load over people.
- It is forbidden to lift loads greater than those values mentioned in the lifting capacity table.
- The values mentioned in the table are valid only on even, hard grounds. When lifting on soft ground, the machine can tilt over due to the fact that the load is concentrated only on one side of the machine.
- The table is valid only on loads at the end of the arm without the bucket. In order to find the available loads for machines with bucket, the bucket weight must be subtracted from the values in the table.

The lifting capacities are based on ISO 10567 and do not exceed 75% of the static tilt load of the machine or 65% of the hydraulic lifting capacity of the machine.

The strokes are as follow:

- (i) The load point corresponds to the front bolt part of the arm.
- (ii) The machine positions are (i) over-front (Blade down), (ii) over-front (Blade up), and (iii) over-side.
- (iii) The operating cylinder is the boom cylinder.
- (iv) The bucket of the excavator, the hook, the sling and other lifting accessories are taken into consideration for the loads.

LIFT POINT HEIGHT (ft)	LIFTING CAPACITY OVER-FRONT BLADE DOWN Unit=1000lbs					LIFTING CAPACITY OVER-FRONT BLADE UP Unit=1000lbs					LIFTING CAPACITY OVER-SIDE Unit=1000lbs				
	LIFT POINT RADIUS (ft)					LIFT POINT RADIUS (ft)					LIFT POINT RADIUS (ft)				
	MIN	4	10	16	MAX	MIN	4	10	16	MAX	MIN	4	10	16	MAX
12															
8			3.35	2.51	2.33			3.29	1.53	1.43			2.68	1.27	1.19
4			4.81	2.70	2.47			2.98	1.47	1.31			2.39	1.22	1.09
GL			5.29	2.75	2.57			2.81	1.43	1.35			2.24	1.18	1.11
-4	3.59	6.03	4.66			3.59	6.03	2.81			3.59	6.03	2.23		
-8			2.48					2.48					2.34		

Machine with ROPS canopy and rubber crawler, without bucket.

(4) Part No. RD809-5727-1[CAB]

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

Before moving the excavator, KNOW THE LOCATION OF THE DOZER BLADE. The excavator will travel in the direction of the dozer blade when drive levers are moved away from the operator.

DO NOT OPERATE WITHOUT ROPS. YOU COULD BE CRUSHED.

USE SEAT BELT.

(4) Part No. RD418-5727-4[CANOPY]

**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH:**

Before moving the excavator, KNOW THE LOCATION OF THE DOZER BLADE. The excavator will travel in the direction of the dozer blade when drive levers are moved away from the operator.

DO NOT OPERATE WITHOUT ROPS. YOU COULD BE CRUSHED.

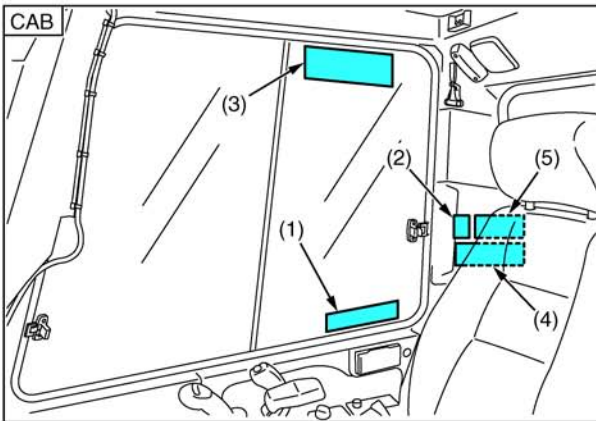
USE SEAT BELT.

(5) Part No. RD358-5745-1

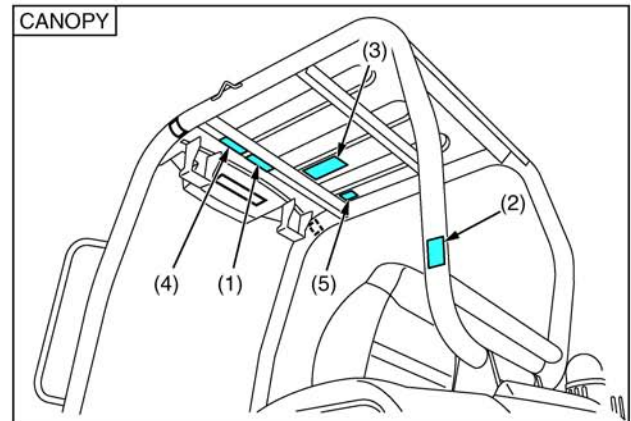
**WARNING**

**TO AVOID PERSONAL INJURY OR DEATH**

Do not push the dozer control lever into the float position while the machine is supported by the dozer blade.

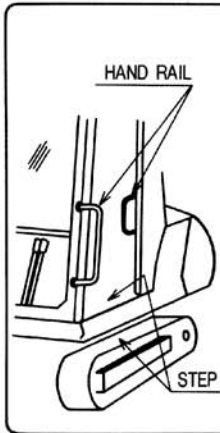


RY9212050IC1008A



RY9212050INI0008US0

(1) Part No. RC108-5765-2 [CAB]

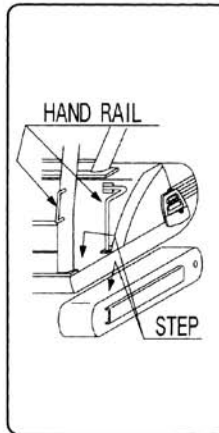


**CAUTION**  
**TO AVOID PERSONAL INJURY:**  
**MOUNT AND DISMOUNT SAFELY**  
**WHEN ENTERING OR LEAVING**  
**THE OPERATOR'S COMPARTMENT.**

1. Maintain a three-point contact with the steps and handrails.
2. Face the machine.
3. Never jump on or off the machine.
4. Never attempt to mount or dismount a moving machine.
5. Never use control levers as handles.

1BAAGAAP0140

(1) Part No. RD118-5763-1 [Canopy]



**CAUTION**  
**TO AVOID PERSONAL INJURY:**  
**MOUNT AND DISMOUNT SAFELY**  
**WHEN ENTERING OR LEAVING**  
**THE OPERATOR'S COMPARTMENT.**

1. Maintain a three-point contact with the steps and handrails.
2. Face the machine.
3. Never jump on or off the machine.
4. Never attempt to mount or dismount a moving machine.
5. Never use control levers as handles.

1BAAGAAP0160

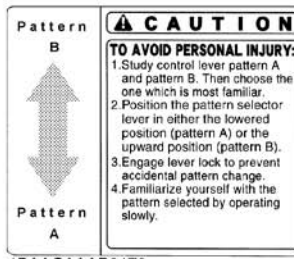
(2) Part No. RC418-5753-1



**TO AVOID PERSONAL INJURY:**  
 Lock control lever before leaving compartment.

1BAAGAAP0180

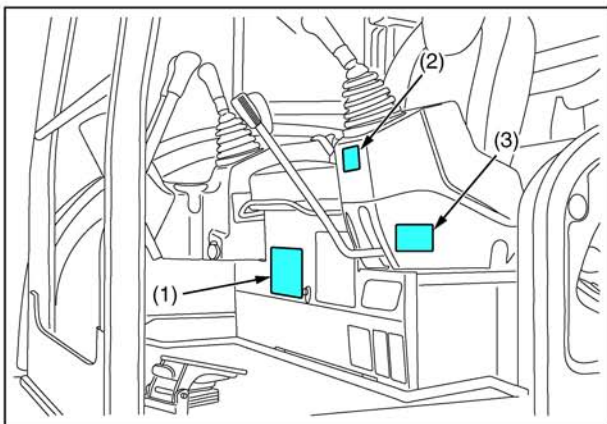
(3) Part No. RC418-5732-3



**CAUTION**  
**TO AVOID PERSONAL INJURY:**

1. Study control lever pattern A and pattern B. Then choose the one which is most familiar.
2. Position the pattern selector lever in either the lowered position (pattern A) or the upward position (pattern B).
3. Engage lever lock to prevent accidental pattern change.
4. Familiarize yourself with the pattern selected by operating slowly.

1BAAGAAP0170

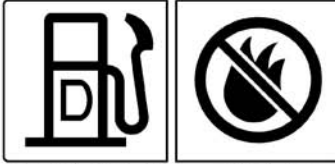


RY9212050ICI009A

RY9212050INI0009US0

(1) Part No. RD148-5736-1

Diesel fuel only No fire

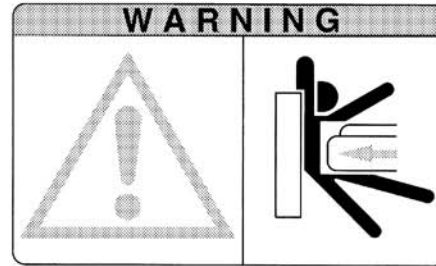


LOW SULFUR FUEL OR  
ULTRA LOW SULFUR  
FUEL ONLY

1BAAGAAP1000

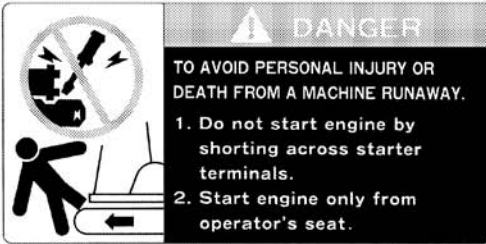
(2) Part No. RC418-5725-1

Do not allow any persons within the working range.



1BAAGAAP0240

(3) Part No. RC108-5718-1



1BAAGAAP0250

(4) Part No. RC108-5714-1

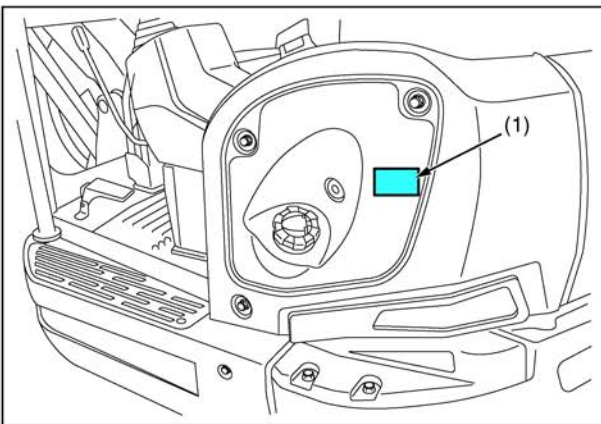
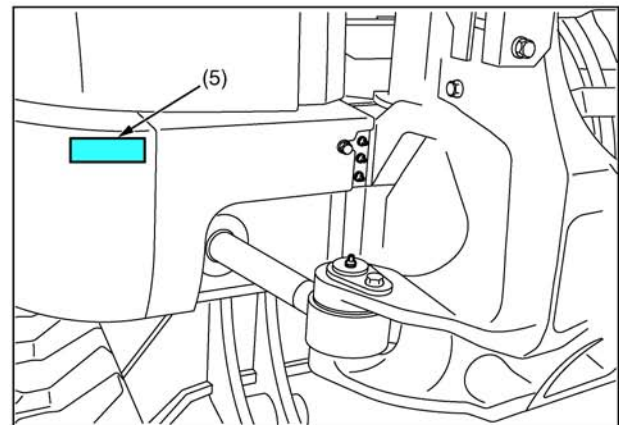


1BAAGAAP0260

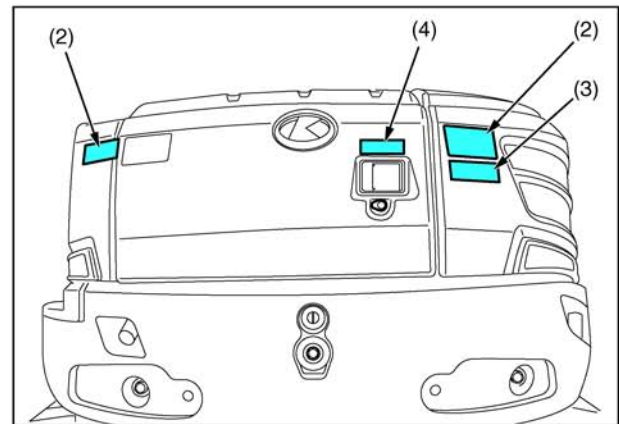
(5) Part No. RD108-5718-1



1BAAGAAP0310



RY9212050ICI010A



RY9212050INI0010US0

- (1) Part No. RD809-5795-1  
Do not loosen the grease nipple completely or too quickly.



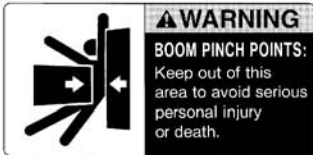
1BAABAMAP0010

- (2) Part No. RC108-5796-1 [Both sides]



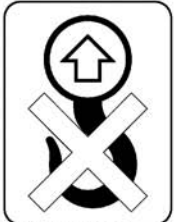
1BAAAQAP0940

- (3) Part No. 68328-5735-1 [Both sides]



1BAAGAAP0270

- (4) Part No. RB419-5796-1 [Both sides]

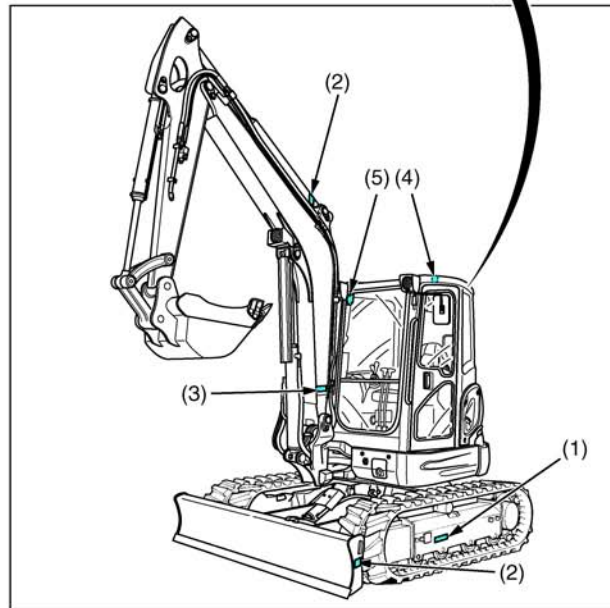
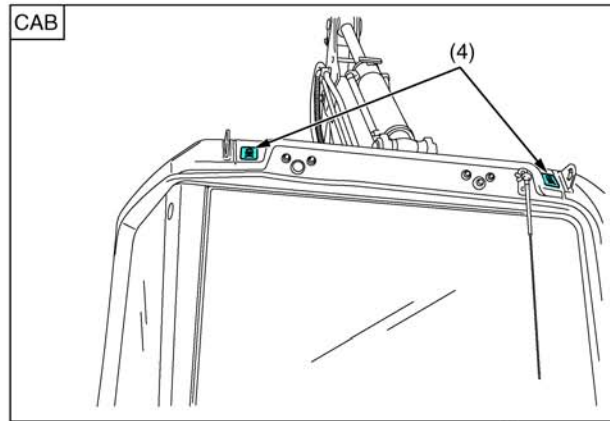
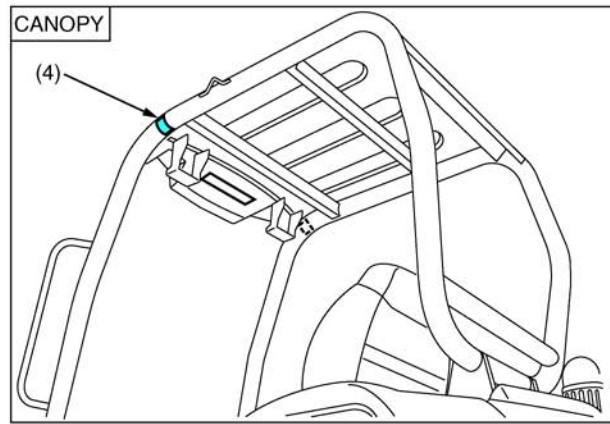


1BAABAUAP2720

- (5) Part No. RD358-5785-1 [CAB]



1BAAABYAP137E



RY9212050IC1011A

RY9212050INI0011US0

(1) Part No. TA040-4958-1

Do not touch hot parts such as exhaust etc.



1BAAGACAP0280

(2) Part No. RC418-5737-2

Keep away from fan and fan belt.

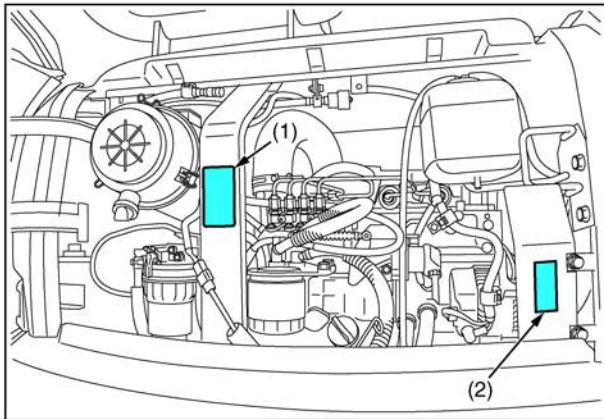


1BAAAAQAP0880

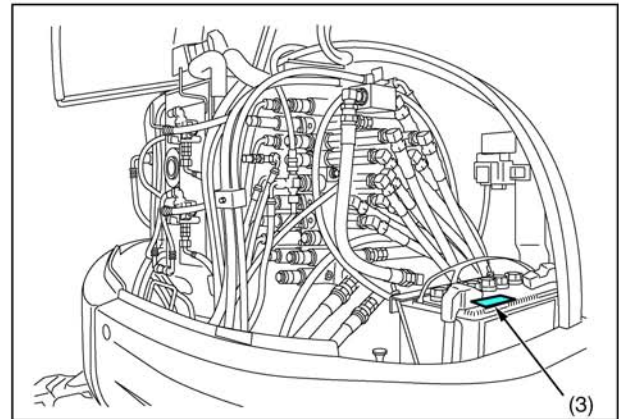
(3) Part No. 6C040-5559-1

**DANGER EXPLOSIVE GASES**  
Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training.  
**KEEP VENT CAPS TIGHT AND LEVEL**  
**POISON CAUSES SEVERE BURNS**  
Contains sulfuric acid. Avoid contact with skin, eyes or clothing. In event of accident flush with water and call a physician immediately.  
**KEEP OUT OF REACH OF CHILDREN**

1BAAGAAP0360



RY9212050ICI012A



RY9212050INI0012US0

**CARE OF DANGER, WARNING AND CAUTION LABELS**

1. Keep danger, warning and caution labels clean and free from obstructing material.
2. Clean danger, warning and caution labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing danger, warning and caution labels with new labels from your KUBOTA dealer.
4. If a component with danger, warning and caution label(s) affixed is replaced with new part, make sure new label(s) is (are) attached in the same location(s) as the replaced component.
5. Mount new danger, warning and caution labels by applying on a clean dry surface and pressure any bubbles to outside edge.

RY9212007INI0015US0

# **G GENERAL**

# GENERAL

## CONTENTS

1. CHECKING BACHOE IDENTIFICATION .....	G-1
2. ENGINE IDENTIFICATION .....	G-2
[1] MODEL NAME AND SERIAL NUMBER .....	G-2
[2] E3B ENGINE .....	G-3
[3] CYLINDER NUMBER.....	G-3
3. GENERAL PRECAUTIONS.....	G-4
4. HANDRING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING.....	G-8
[1] WIRING .....	G-8
[2] FUSES.....	G-10
[3] CONNECTOR .....	G-10
[4] WASHING THE BACHOE WITH A HIGH-PRESSURE WASHER.....	G-11
5. TIGHTNING TORQUES .....	G-12
[1] GENERAL USE SCREWS, BOLTS AND NUTS .....	G-12
[2] STUD BOLTS .....	G-12
[3] TORQUE FOR HYDRAULIC HOSE FITTINGS .....	G-13
(1) Torque for Hydraulic Hose Fittings.....	G-13
(2) Torques of Lock-Nuts for Elbows with Male Seats and Adaptors with O-rings (Straight Threads).....	G-14
(3) Torque for Tapering Adaptors .....	G-14
[4] HOSE CLAMP SCREW TORQUE .....	G-15
6. NEW PRODUCT FEATURE .....	G-17
7. NEW FEATURES OUTLINE.....	G-18
8. QUALITY SPECIFICATIONS .....	G-19
[1] US, CA VERSION .....	G-19
[2] AU VERSION .....	G-30
9. WATER AND OIL QUANTITY .....	G-42
10. DESCRIPTION OF PARTS .....	G-43
[1] BUCKET .....	G-43
(1) Bucket dimensions .....	G-43
(2) Bucket installation relevant dimensions.....	G-44
[2] RUBBER CRAWLER.....	G-44
[3] STEEL CRAWLER .....	G-45
[4] TRUCK ROLLER, IDLER, SPROCKET .....	G-45
[5] CYLINDER .....	G-46
[6] PARTS WEIGHT .....	G-47
11. MAINTENANCE CHECK LIST .....	G-49
[1] US, CA VERSION .....	G-49
[2] AU VERSION .....	G-51

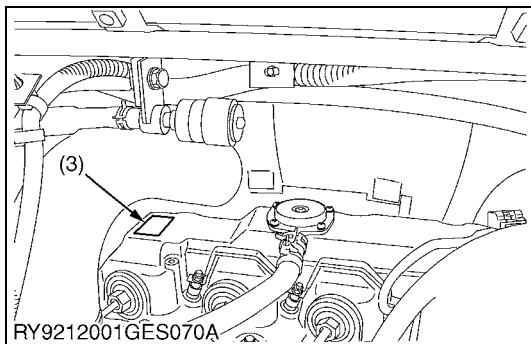
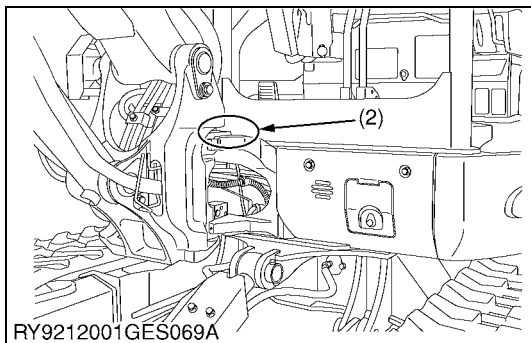
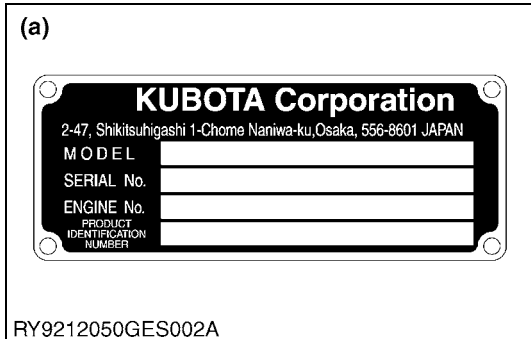
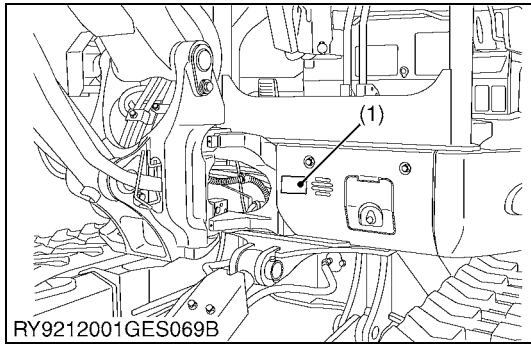
# 1. CHECKING BACHOE IDENTIFICATION

When consulting with your local KUBOTA dealer about this mini-excavator, please provide the model of the mini-excavator, its frame and engine numbers and the number of hours on the hour meter.

- (1) Mini-excavator Nameplate  
(Model, frame number, engine number)
- (2) Frame Number
- (3) Engine Number

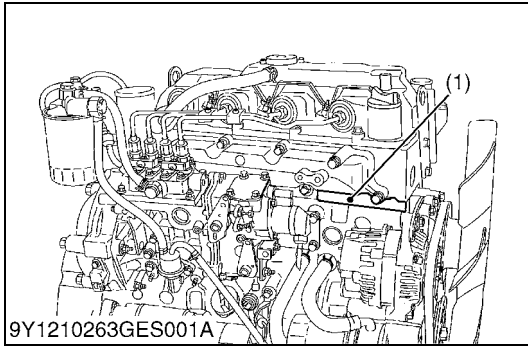
(a) Model Nameplate

RY9212050GEG0017US0



## 2. ENGINE IDENTIFICATION

### [1] MODEL NAME AND SERIAL NUMBER



Be sure to check the engine nameplate and serial number when you wish to consult about the engine.

The model and serial number of the engine need to be checked prior to servicing the engine or replacing any of its parts.

■ **Engine Serial No.**

The engine serial number is the numerical ID of the engine and is printed after the engine's model number.

The year and month of manufacture are indicated as follows

**Year Manufactured**

Letter or Number	Year	Letter or Number	Year
1	2001	F	2015
2	2002	G	2016
3	2003	H	2017
4	2004	J	2018
5	2005	K	2019
6	2006	L	2020
7	2007	M	2021
8	2008	N	2022
9	2009	P	2023
A	2010	R	2024
B	2011	S	2025
C	2012	T	2026
D	2013	V	2027
E	2014		

\*The letters **I, O, Q, U** and **Z** are not used.

**Month Manufactured**

Month	Lot Number	
January	A0001 to A9999	B0001 to BZ999
February	C0001 to C9999	D0001 to DZ999
March	E0001 to E9999	F0001 to FZ999
April	G0001 to G9999	H0001 to HZ999
May	J0001 to J9999	K0001 to KZ999
June	L0001 to L9999	M0001 to MZ999
July	N0001 to N9999	P0001 to PZ999
August	Q0001 to Q9999	R0001 to RZ999
September	S0001 to S9999	T0001 to TZ999
October	U0001 to U9999	V0001 to VZ999
November	W0001 to W9999	X0001 to XZ999
December	Y0001 to Y9999	Z0001 to ZZ999

\*The letter **I** and **O** are not used.

(a) (b)(c) (d)  
e.g. V2607 - 8 HA001

- (a) Engine Model : **V2607-DI**
- (b) Year Manufactured : The **8** indicates **2008**.
- (c) Month : April is indicated by either **G** or **H**.
- (d) Lot Number : (Either **0001 to 9999** or **A001 to Z999**)

- (1) Engine Model and Serial Number

## [2] E3B ENGINE

[Ex. : Engine Model V2607-DI-E3B-XXXX]

While the exhaust emissions regulations in each country that have been implemented to date to prevent air pollution are constantly changing, regulations governing off-road exhaust emissions are expected to be implemented more quickly. The date that specific off-road exhaust emissions regulations will take effect depends on the output category of the engine.

For some years now KUBOTA has been supplying regulation-compliant diesel engines in countries where off-road exhaust emission regulations have been introduced. KUBOTA's E3B series of engines meet the next phase of exhaust emission regulations. (See the table below.)

Whenever repairs or service is performed on a ###-E3B series engine, E3B engine replacements parts, which are in the applicable E3B KUBOTA Parts List, must be used and the KUBOTA Operator's Manual and E3B Workshop Manual must be used for maintenance. Use of incorrect replacement parts or replacement parts from other emission level engines (for example : E2B engines), may result in emission levels out of compliance with the original E3B design, EPA and/or other applicable regulations. Check the output category and emissions data on the emissions label on the header cover of the engine. E3B engines have the suffix ET after the model name on the EPA label. E3B is not marked on the engine.

TYPE : #####  
 FAMILY : #####  
 APPROVAL NUMBER: #####/#####/#####  
**Kubota** KUBOTA Corporation  
 #####

(1) (2)

**EMISSION CONTROL INFORMATION**

THIS ENGINE MEETS 2008 ##### EMISSION REGULATIONS FOR U.S. EPA AND CALIFORNIA NONROAD CY ENGINES.

**Kubota** KUBOTA Corporation

MODEL : ### -ET ENGINE DISP. : ####  
 FAMILY : 8 ### EGS : EM  
 OUTPUT : ## kW / ### rpm CATEGORY : ## - ## kW  
 VALVE CLEARANCE (COLD) : IN ## mm EX ## mm  
 INJ. TIMING : ### DEG BTDC LOW IDLE : ## - ## rpm  
 LOW SULFUR FUEL OR ULTRA LOW SULFUR FUEL ONLY  
 CONTACT KUBOTA FOR FUEL SETTING. #####

3EEAEAE0P002A

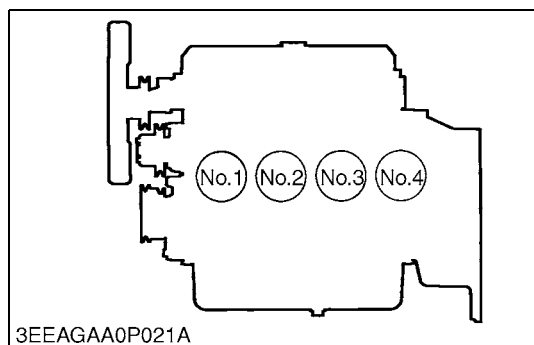
Class (1)	Engine Output Category	EU Regulation
K	19 to/not including 37 kW	STAGE IIIA
J	37 to/not including 75 kW	STAGE IIIA
I	75 to/not including 130 kW	STAGE IIIA

Class (2)	Engine Output Category	EPA Regulation
ET	Less than 19 kW	Tier 4
	19 to/not including 56 kW	Interim Tier 4
	56 to/not including 75 kW	Tier 3
	75 to/not including 130 kW	Tier 3

- (1) EU Regulation engine output classification
- (2) "E3B engines" have the suffix ET after the model name on the EPA label. "E3B" models meet Tier 3, Interim Tier4 or Tier4 regulations, depending on the engine output category.

RY9212001END0010US0

## [3] CYLINDER NUMBER

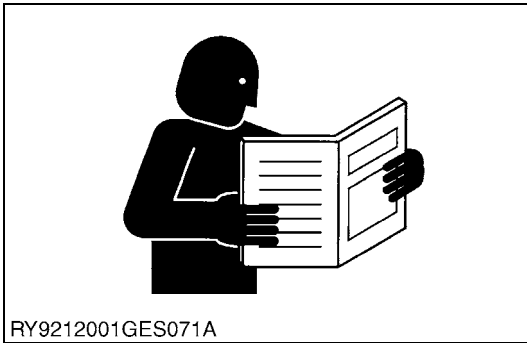


KUBOTA diesel engines are numbered as indicated in the figure.

Cylinders are numbered from the front cover (fan side) in the order 1, 2, 3 and 4.

RY9212001END0011US0

### 3. GENERAL PRECAUTIONS



Whenever performing maintenance on the mini-excavator, always read the Safety Precautions in this manual and the Operator's Manual carefully, become familiar with them and perform the work safely.

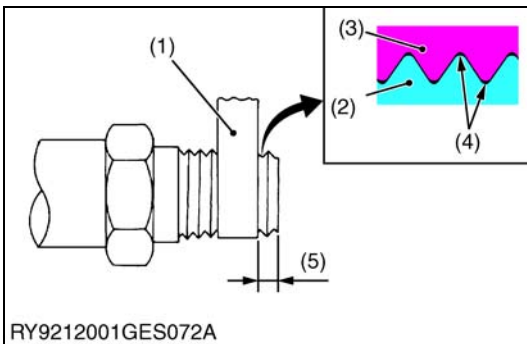
Before performing any maintenance on the mini-excavator, make sure it is sufficiently clean and choose a sufficiently clean location to perform any disassembly.

Before performing maintenance on the mini-excavator, always disconnect the negative battery cable first.

Whenever a special tool is required, use the special tool that KUBOTA recommends. Make any special tools that are not used very frequently according to the diagrams in this manual.

Always use genuine KUBOTA parts to maintain the performance and safety characteristics of the mini-excavator.

RY9212001GEG0011US0

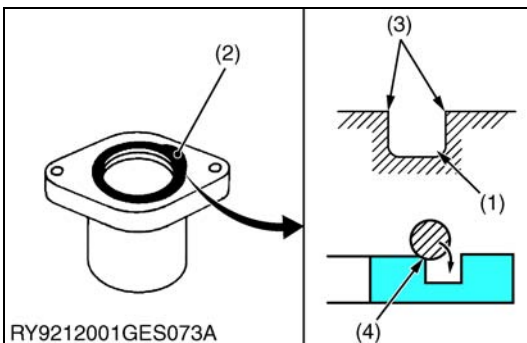


#### Plumber's Tape

- Wrap plumber's tape on the threads before tightening taper couplings. After wrapping (2 wraps) the plumber's tape, tighten to the specified torque. Once the coupling is tightened, do not loosen it as this will cause an oil leak.

- |                     |                          |
|---------------------|--------------------------|
| (1) Plumber's Tape  | (4) Gap                  |
| (2) External Thread | (5) Leave 1 to 2 threads |
| (3) Internal Thread |                          |

RY9212001GEG0012US0

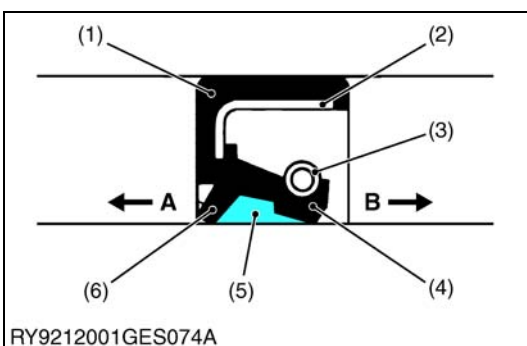


#### O-Ring

- Clean the groove the O-ring goes in and remove any burrs. Apply grease on the O-ring when inserting it in the groove. (Except floating seals)
- When putting the O-ring in the groove, be careful as it is easy at the very end to twist the O-ring against the inside of the groove. If it gets twisted, roll it gently with your fingertip to untwist it.

- |                     |  |
|---------------------|--|
| (1) O-ring Groove   | (4) If the ring touches this corner, it will twist |
| (2) O-ring          |  |
| (3) Check for burrs |  |

RY9212001GEG0013US0



#### Oil Seal

- Do not face the lip of the oil seal in the wrong direction. Face the main lip toward the material to be sealed.
- After oil seals are replaced, apply grease to the moving parts around the lip to prevent the dry surfaces from wearing against each other when the engine is started. If the seal has a dust lip, fill the gap between the lips with grease.
- As a general rule, use a press to insert the oil seal in place. If that is not possible, use an appropriate tool to gently and evenly tap it into place, taking care that it does not go in at a slant. Press the seal all the way so it seats in the boss.

- |                |                                       |
|----------------|---------------------------------------|
| (1) Gasket     | <b>A : Air (outside)</b>              |
| (2) Metal Ring | <b>B : Hydraulic chamber (inside)</b> |
| (3) Spring     |                                       |
| (4) Main Lip   |                                       |
| (5) Grease     |                                       |
| (6) Dust Lip   |                                       |

RY9212001GEG0014US0

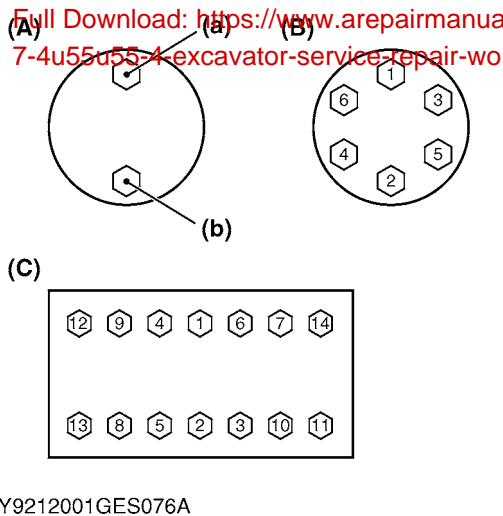


Product: 2010 Kubota WSM KX057-4,U55,U55-4 Excavator Service Repair Workshop Manual

Full Download: <https://www.arepairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/>

**Tightening Bolts and Nuts**

- Tighten bolts and nuts to their specified torque.
- Tighten nuts and bolts alternately top/bottom **(a) (b)**, left/right so the torque is distributed evenly.



- (A) Top/bottom alternately**
- (B) Across diagonally**
- (C) Diagonally across the center**

RY9212001GEG0019US0

**Assembling Hydraulic Hoses**

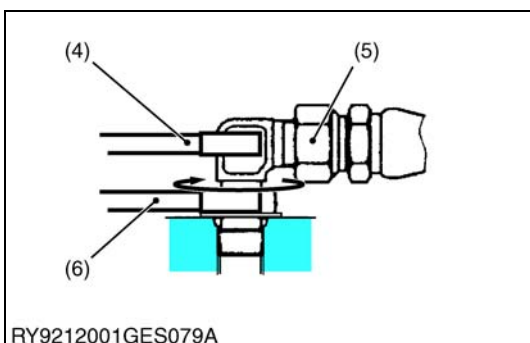
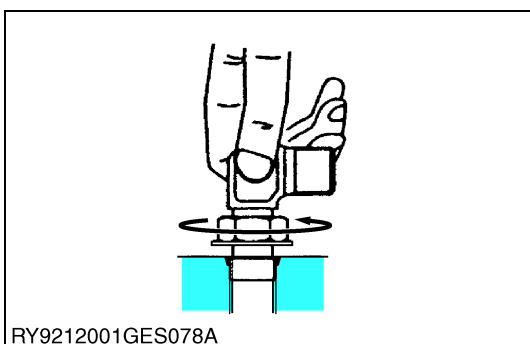
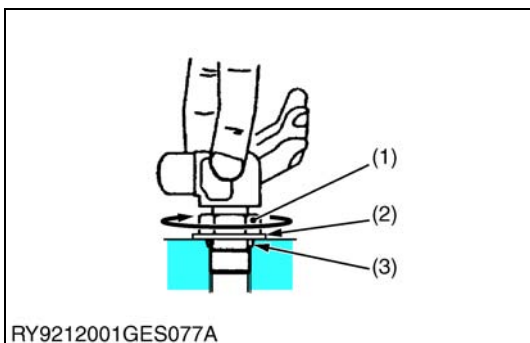
- Tighten to their specified torque.
- Before assembling, wipe the inside of metal fittings clean of any dirt.
- After assembly, put the fitting under normal pressure and check that it does not leak.

RY9212001GEG0020US0

**Elbow with Male Seat Assembly Procedure**

When assembling an elbow with male seat, adhere to the following procedures to prevent deformation of O-rings and leaks.

1. Connecting to Valves
  - Clean the blow with male seat and the surface of the seal opposite and mount with the lock-nut on top.
  - Finger tighten till it touches the washer.
2. Positioning
  - Turn the mouth of the elbow back so it faces the right direction. (not back over 1 turn)
3. Fasten
  - Tighten the lock-nut to the specified torque with a wrench.



- (1) Lock-nut
- (2) Washer
- (3) Seal (O-ring)
- (4) Wrench for holding
- (5) Hose
- (6) Torque wrench for tightening

RY9212001GEG0021US0

Sample of manual. Download All 739 pages at:

<https://www.arepairmanual.com/downloads/2010-kubota-wsm-kx057-4u55u55-4-excavator-service-repair-workshop-manual/>