

Product: Kubota RTV400Ci Service Manual

Full Download: <https://www.arepairmanual.com/downloads/kubota-rtv400ci-service-manual/>

WSM

WORKSHOP MANUAL
UTILITY VEHICLE

RTV400Ci

Kubota

KiSC issued 08, 2019 A

Sample of manual. Download All 312 pages at:

<https://www.arepairmanual.com/downloads/kubota-rtv400ci-service-manual/>

TO THE READER

This Workshop Manual tells the servicing personnel about the mechanism, servicing and maintenance of the RTV400Ci. It contains 4 parts: "**Information**", "**General**", "**Mechanism**" and "**Servicing**".

■ **Information**

This section primarily contains information below.

- Safety First
- Safety Decal
- Specification
- Dimension

■ **General**

This section primarily contains information below.

- Engine Identification
- Model Identification
- General Precautions
- Maintenance Check List
- Check and Maintenance
- Special Tools

■ **Mechanism**

This section contains information on the structure and the function of the unit. Before you continue with the subsequent sections, make sure that you read this section.

Refer to the latest version of Workshop Manual (Code No. 9Y021-01870 / 9Y021-18200) for the diesel engine / tractor mechanism that this workshop manual does not include.

■ **Servicing**

This section primarily contains information below.

- Troubleshooting
- Servicing Specifications
- Tightening Torques
- Checking, Disassembling and Servicing

All illustrations, photographs and specifications contained in this manual are of the newest information available at the time of publication.

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

February 2012

© KUBOTA Corporation 2012

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 Measures {Search word}	Reference Page
2	2013.05	Add the safety decals for Europe model. {Europe}	I-9
3	2014.04	Change the shape of the power train support.	G-49
4	2016.01	Revised Maintenance Intervals.	G-13
5	2017.03	Revised Harness voltage of injector	7-S18
6	2017.12	Corrected the expression of lubricants.	G-9, G-18, G-40, G-43, 3-S13, 4-S6, 4-S7, 4-S8, 4-S18
		Corrected the "Changeing Engine Oil", "Checking Engine Start System", and "Checking Battery Condition" of Maintenance Intervals.	G-21, G-26, G-31

I INFORMATION

INFORMATION

CONTENTS

1. SAFETY FIRST	I-1
2. SAFETY DECALS	I-4
[1] North America and Oceania	I-4
[2] Europe	I-9
3. SPECIFICATIONS.....	I-14
4. TRAVELLING SPEEDS.....	I-15
5. DIMENSIONS	I-16

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 try 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, could result in minor or moderate injury.

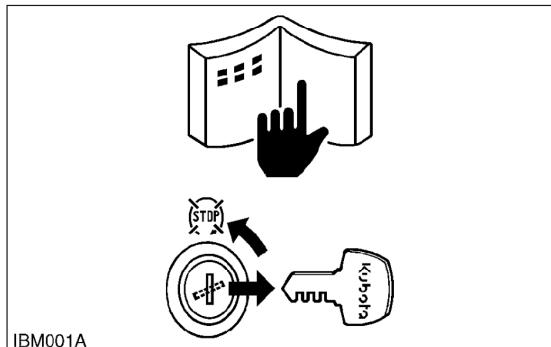
■ IMPORTANT

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

■ NOTE

- Gives helpful information.

WSM000001INT0001US1



BEFORE YOU START SERVICE

- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a stable and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, then remove the key.
- Disconnect the battery negative cable.
- Hang a "DO NOT OPERATE" tag in the operator station.

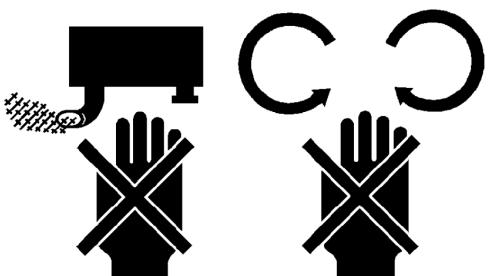
WSM000001INT0010US0



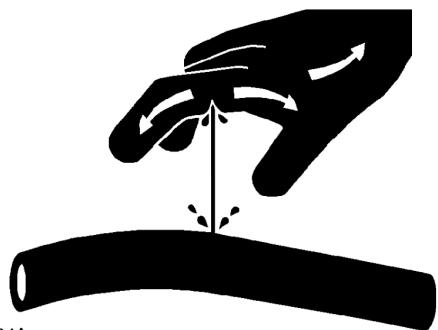
START SAFELY

- Do not do the procedures below when you start the engine.
 - short across starter terminals
 - bypass the safety start switch
- Do not alter or remove any part of machine safety system.
- Before you start the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Do not start the engine when you stay on the ground. Start the engine only from operator's seat.

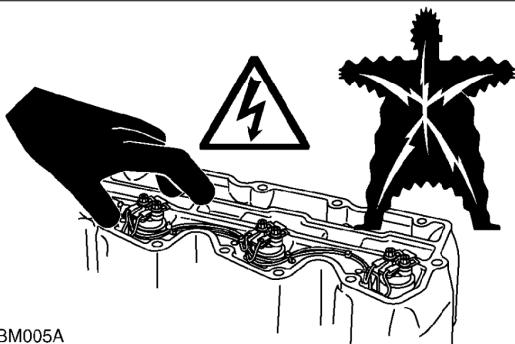
WSM000001INT0015US0



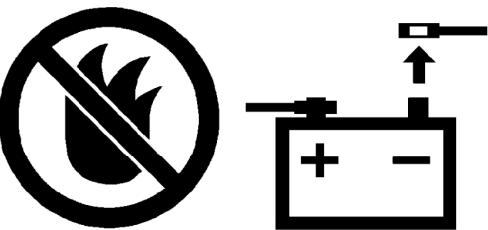
IBM003A



IBM004A



IBM005A



IBM006A

OPERATE SAFELY

- 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 operate below the machine that only a jack holds. Always use a safety stand to hold the machine.
- 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.

WSM000001INT0012US0

PREVENT A FIRE

- 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.

WSM000001INT0005US0

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

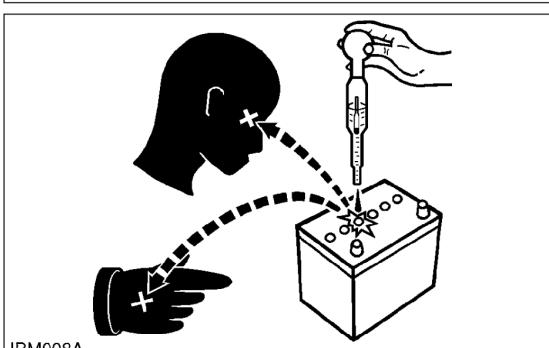
- If the engine is in operation, make sure that the area has good airflow. Do not operate the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.

WSM000001INT0006US0

**DISCARD FLUIDS CORRECTLY**

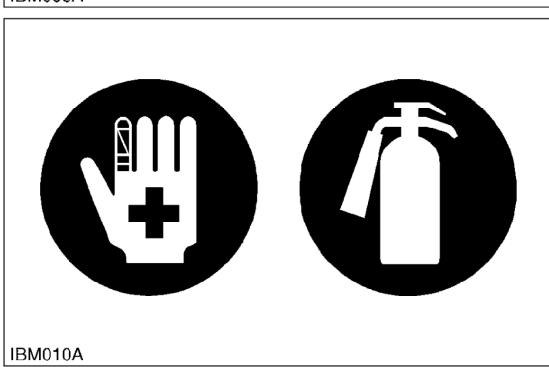
- Do not discard fluids on the ground, down the drain, into a stream, pond, or lake. Obey related environmental protection regulations when you discard oil, fuel, coolant, electrolyte and other dangerous waste.

WSM000001INI0007US0

**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.

WSM000001INT0008US0

**PREPARE FOR EMERGENCIES**

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

WSM000001INI0009US0

2. SAFETY DECALS

[1] North America and Oceania

(1) Part No. K7311-6565-1



1AYAAAYAP0920

(2) Part No. 7311-6522-1



1AYAAAYAP0930

(3) Part No. K7311-6533-4



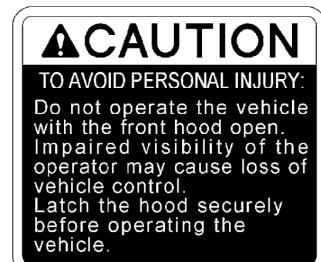
1AYAAAYAP0960

(4) Part No. K7311-6524-1

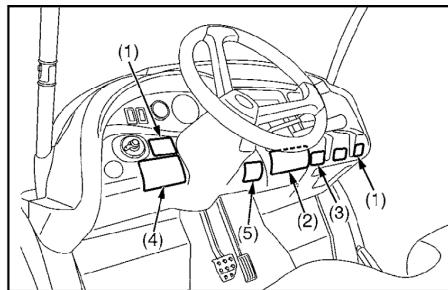


1AYAAAYAP0950

(5) Part No. K7311-6530-1



1AYAAAYAP0940



9Y1210710IC1001US

9Y1210710INT0001USO

(1) Part No. K7211-6525-1



DANGER

TO AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY:

1. Do not start engine by shorting across starter terminals or bypassing the safety start switch. The vehicle may start in gear and move if normal starting circuitry is bypassed.
2. Start engine only from operator's seat with range shift lever in neutral position and hydraulic outlet off (if equipped).

1AYAAAYAP0970

(2) Part No. K7561-6541-2



TO AVOID PERSONAL INJURY OR DEATH:

1. Do not remove Roll-Over Protective Structures (ROPS) for any application.
2. Do not modify or repair a ROPS because welding, grinding, drilling or cutting any portion may weaken the structure.

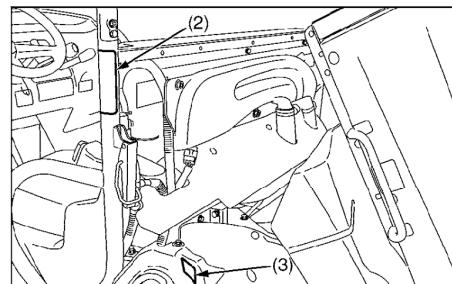
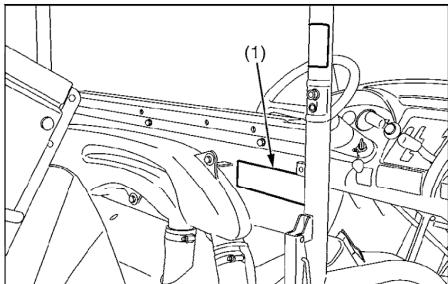
1AYAAAYAP0980

(3) Part No. K7311-6537-1

Gasoline
fuel only No fire

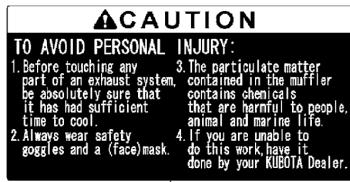


1AYAAAYAP1000

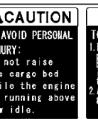
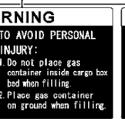


9Y1210710IC1002US

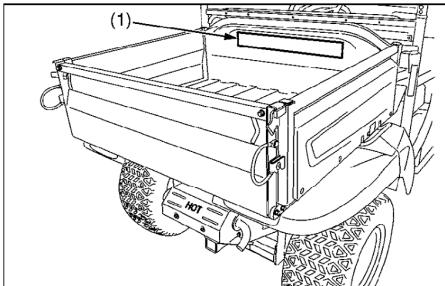
9Y1210710IN10002US0



(1) Part No. K7211-6526-2



1AYAACPAP049A



9Y1210710IC1003US

9Y1210710IN10003US0

(1) Part No. K7311-6542-2



1AYAAAYAP1010

(2) Part No. K7311-6559-1



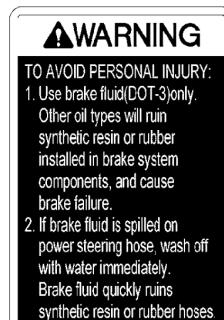
1AYAAAYAP156A

(4) Part No. K2651-6568-1



1AYAACAAP1000

(3) Part No. K7311-6548-2

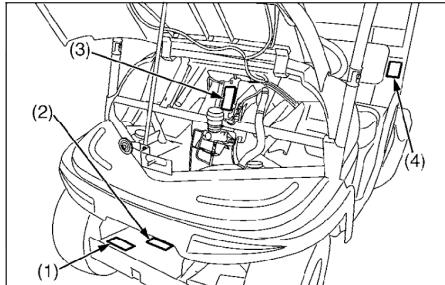


1AYAAAYAP132A

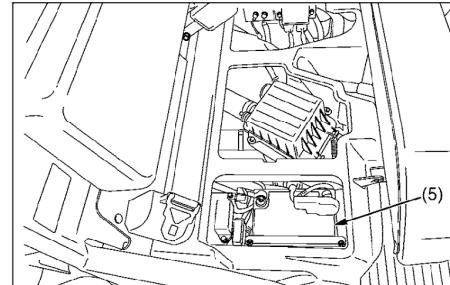
(5) Part No. K1221-6118-1



1BDABDMAP013A

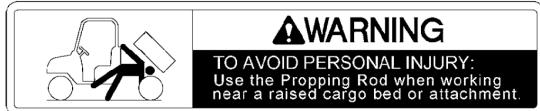


9Y1210710IC1004US



9Y1210710IN10004USO

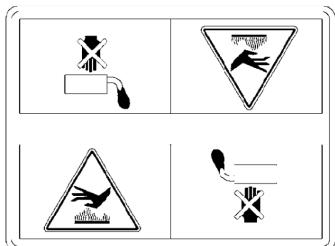
(1) Part No. K7211-6546-1



1AYAAAYAP1020

(2) Part No. K7311-6547-2

Do not touch hot surface like muffler, etc..

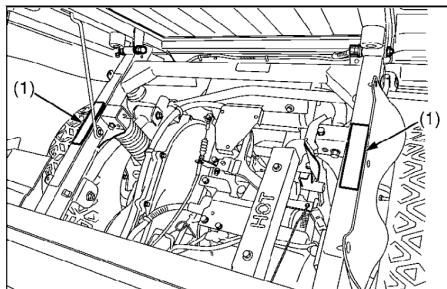


1AYAAAYAP1030

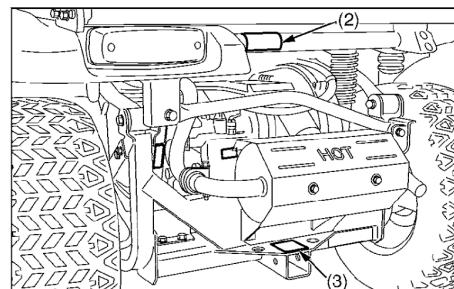
(3) Part No. K7211-6544-1



1AYAACPAP055A

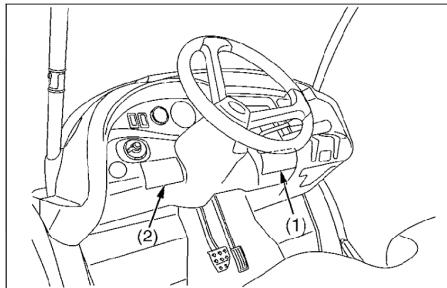


9Y1210710IC1005US

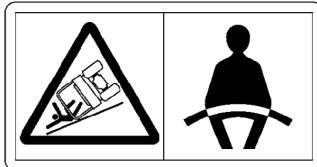


9Y1210710NT0005US0

[2] Europe



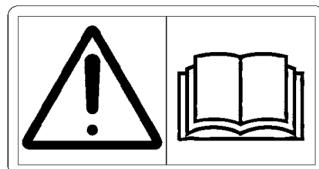
(1) Part No K7583-6565-1



1AYAACHP003A

- Always fasten your seat belt on drivers seat and passenger seat.

(2) Part No. K7583-6522-1

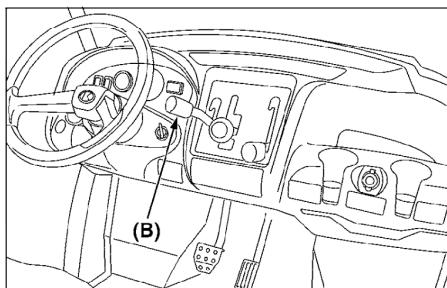


1AYAACHP001A

THIS LABEL INCLUDE 5 POINTS CAUTIONS BELOW.

(A) GENERAL CAUTIONS

1. Read and understand the operator's manual before operation.
2. Never allow anyone without a valid driver's license to operate this vehicle.
3. Before allowing other people to use the vehicle, have them read the operator's manual.
4. This vehicle is for off road use only. Never operate on a public road.
5. Wear safety gear, including helmet and eye protection, as appropriate.
6. Check the tightness of all nuts and bolts regularly.
7. In addition to the driver, only 1 passenger can be carried. Minimum age for passenger is 5 years old.
8. Before starting the engine, make sure that everyone is at a safe distance from the vehicle and the hydraulic outlet is off (if equipped)
9. Do not operate the vehicle under the influence of drugs or alcohol.
10. Keep all shields in place and stay away from all moving parts.
11. Slow down for turns, or rough terrain.
12. Before getting off from the vehicle, apply the parking brake, stop the engine and remove the key.

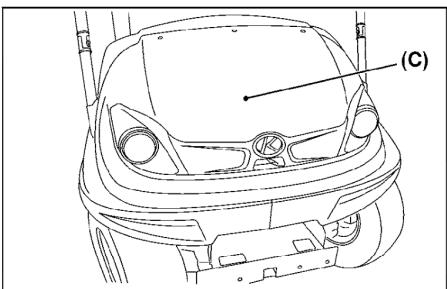


(B) DIFFERENTIAL LOCK LEVER

- Do not engage the differential lock while at high speed.

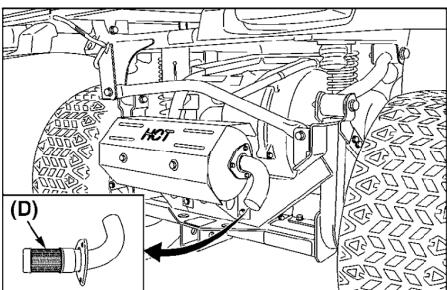
9Y1210710IC1006US

9Y1210710IN10010US0

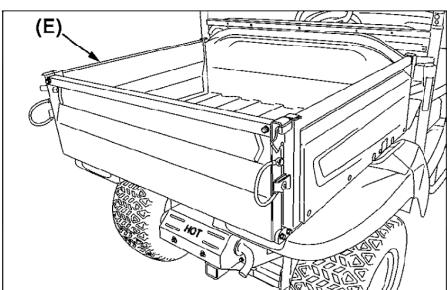
**(C) FRONT HOOD**

- Do not operate the vehicle with the front hood open. Impaired visibility of the operator may cause loss of vehicle control.

Latch the hood securely before operating the vehicle.

**(D) SPARK ARRESTER**

1. Before touching any part of an exhaust system, be absolutely sure that it has had sufficient time to cool.
2. Always wear safety goggles and a (face) mask.
3. The particulate matter contained in the muffler contains chemicals that are harmful to people, animal and marine life.

**(E) CARGO BED**

1. Do not travel with the cargo bed in the raised position.
2. Do not raise the cargo bed while the engine is running above new idle.

9Y1210710IC1007US

9Y1210710INT0011US0

(1) Part No. K7313-6525-1



1AYAACCHAP002A

1. Do not start engine by shorting across starter terminals or bypassing the safety start switch.
The vehicle may start in gear and move if normal starting circuitry is bypassed.
2. Start engine only from operators seat with range shift lever in neutral position and hydraulic outlet off (if equipped).

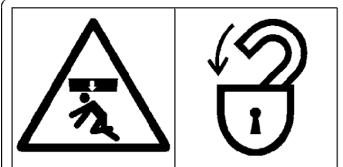
(2) Part No. K7583-6541-1



1AYAACCHAP009A

1. Do not remove Roll-Over Protective Structures (ROPS) for any application.
2. Do not modify or repair a ROPS because welding, grinding, drilling or cutting any portion may weaken the structure.

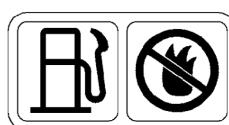
(3) Part No. K7313-6546-1



1AYAACPAP065A

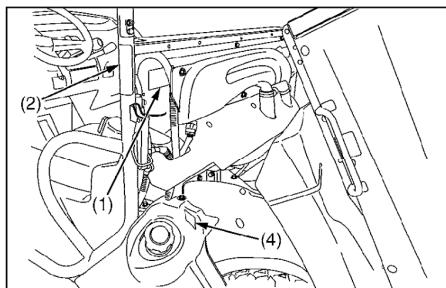
- Use the Propping Rod when working near a raised cargo bed or attachment.

(4) Part No. K7313-6537-1

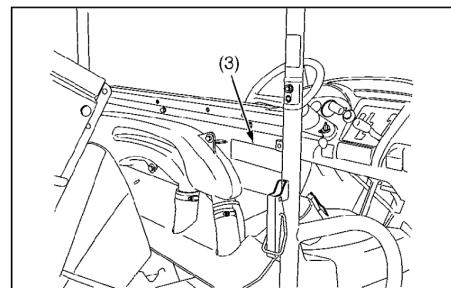


1AYAACPAP069A

- GASOLINE FUEL ONLY
- NO FIRE

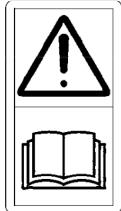


9Y1210710IC1008US



9Y1210710INT0012US0

(1) Part No. K7583-6546-1



1AYAACCHAP010A

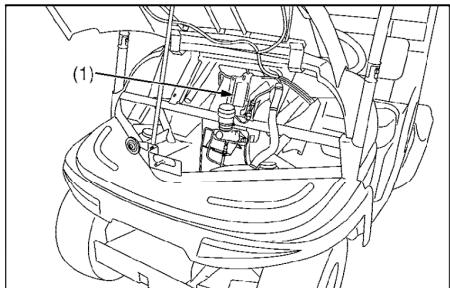
1. Use brake fluid (DOT-3) only.
Other oil types will ruin synthetic resin or rubber installed in brake system components, and cause brake failure.
2. If brake fluid is spilled on power steering hose, wash off with water immediately.
Brake fluid quickly ruins synthetic resin or rubber hoses.

(2) Part No. K1221-6118-1

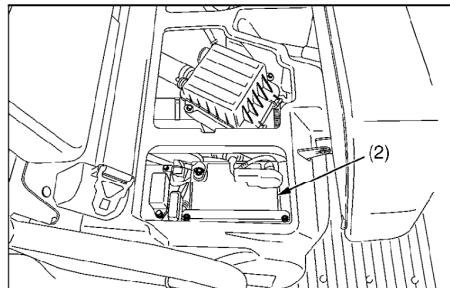


1BDAFAIAPIP136A

- SHIELD EYES
EXPLOSIVE GASES can cause blindness or injury.
- NO SPARKS / FLAMES / SMOKING
- SULFURIC ACID can cause blindness or severe burns.
- Flush eyes immediately with water.
- Get medical help fast.



9Y1210710IC1009US



9Y1210710IN10013USO

(1) Part No. K7313-6526-1



1AYAACCHAP005A

- Do not carry passengers in cargo bed.

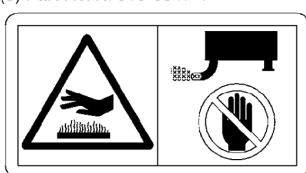
(2) Part No. K7313-6557-1



1AYAACCPAP067A

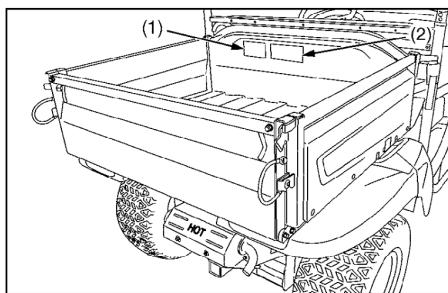
1. Do not place gas container inside cargo box bed when filling.
2. Place gas container on ground when filling.

(3) Part No. K7313-6547-1

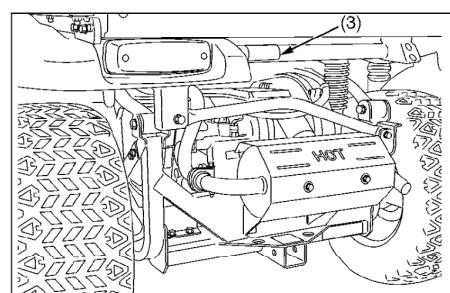


1AYAACCPAP066A

- Do not touch hot surface like muffler, etc..



9Y1210710IC1010US



9Y1210710INI0014US0

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.
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 pressing any bubbles to outside edge.

9Y1210710INI0006US0

3. SPECIFICATIONS

Model		RTV400Ci
Engine	Model	SUBARU GH4120
	Type	1 cylinder OHC, Air-cooled, EFI Gas
	Displacement	0.404 L (24.7 cu. in.)
Fuel Capacity		20 L (5.3 U.S.gals, 4.4 Imp.gals)
Transmission		Continuously variable transmission (CVT)
Wheels, Drive system		4, Rear 2WD or 4WD
Differential lock		Standard; hand operated with mechanical holder
Gear selection		Hi-Lo range forward, neutral, reverse
Brakes	Front / Rear	Dry disk brake
	Parking brake	Rear wheel, hand lever
Steering		Rack and Pinion
Suspension	Front	Independent, Mac Pherson strut-type
	Rear	Semi-independent, Multi-link
Dimensions	Length	2690 mm (105.9 in.)
	Width	1390 mm (54.7 in.)
	Height, overall	1829 mm (72 in.)
	Front tread centers	1016 mm (40 in.)
	Rear tread centers	1041 mm (41 in.)
	Wheelbase	1800 mm (70.9 in.)
	Ground clearance	front axle 205 mm (8.1 in.) rear axle 175 mm (6.9 in.)
	Turning diameter	7 m (22.9 ft.)
Max. rolling weight (Towing Capacity)		Rear: 500 kg (1102 lbs) / Front: 250 kg (551 lbs)
Payload capacity		480 kg (1058 lbs)
Weight		565 kg (1246 lbs) with ATV Tires / 570 kg (1257 lbs) with HDWS Tires
Cargo bed	Width	1032 mm (40.6 in.)
	Length	856 mm (33.7 in.)
	Depth	290 mm (11.4 in.)
	Volume	0.25 m ³ (9 cu.ft.)
	Bed height (unloaded)	810 mm (31.9 in.)
	Max. cargo bed load	200 kg (441 lbs)
Tires	Front	24 x 9-12 HDWS, 6PLY
	Rear	24 x 11-12 HDWS, 6PLY
Front deluxe guard		Option
Body color		Orange / Camouflage
Speedometer		Option
Rear net		Option

■ NOTE

- The company reserves the right to change the specifications without notice.
- The values in "Ground clearance" and "Weight" are those of the machine equipped with the tires in the table above.

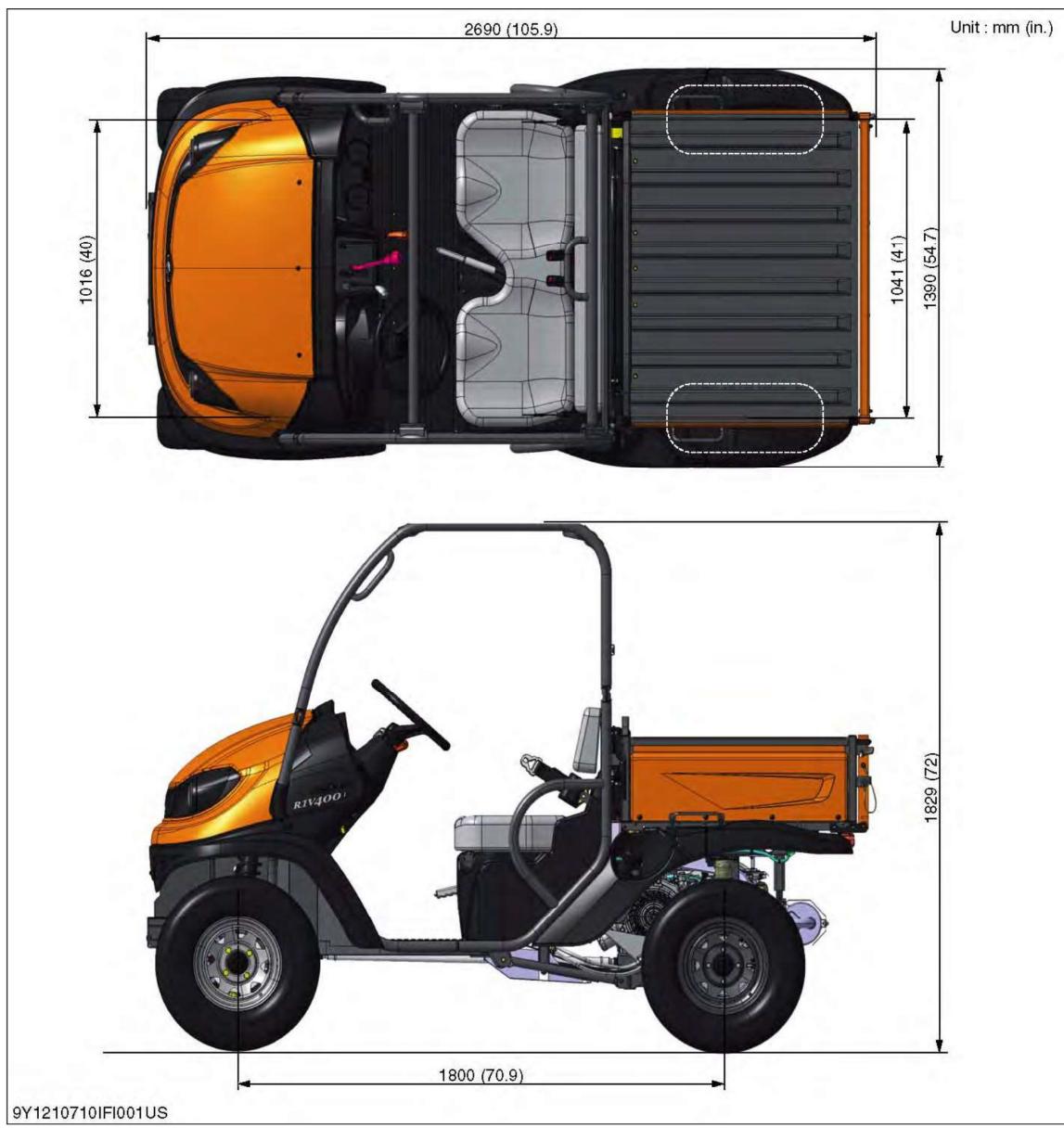
9Y1210710IN10007US0

4. TRAVELLING SPEEDS

	Model	RTV400Ci
	Gear position	km/h (mph)
Range gear shift lever	Low	24 (15)
	High	40 (25)
	Reverse	24 (15)

9Y1210710IN10008US0

5. DIMENSIONS



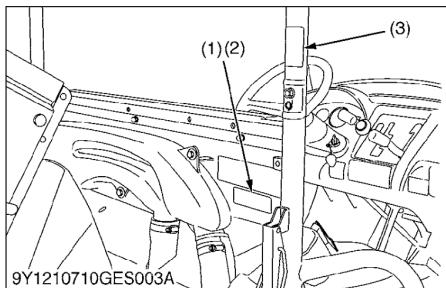
G GENERAL

GENERAL

CONTENTS

1. PRODUCT IDENTIFICATION	G-1
2. GENERAL PRECAUTIONS.....	G-2
3. HANDLING PRECAUTIONS FOR ELECTRICAL	G-3
[1] WIRING	G-3
[2] BATTERY	G-5
[3] FUSE	G-5
[4] CONNECTOR	G-5
[5] HANDLING OF CIRCUIT TESTER	G-6
[6] COLOR OF WIRING	G-7
4. LUBRICANTS AND FUEL	G-8
5. TIGHTENING TORQUES.....	G-10
[1] GENERAL USE SCREWS, BOLTS AND NUTS	G-10
[2] STUD BOLTS	G-10
[3] HYDRAULIC FITTINGS	G-11
(1) Hydraulic Hose Fittings.....	G-11
(2) Hydraulic Pipe Cap Nuts	G-11
(3) Adaptors, Elbows and Others.....	G-11
[4] METRIC SCREWS, BOLTS AND NUTS	G-12
[5] AMERICAN STANDARD SCREWS, BOLTS AND NUTS WITH UNC OR UNF THREADS	G-12
[6] PLUGS	G-12
6. MAINTENANCE CHECK LIST	G-13
7. CHECK AND MAINTENANCE	G-15
[1] DAILY CHECK.....	G-15
[2] CHECK POINTS OF INITIAL 20 HOURS	G-20
[3] CHECK POINTS OF INITIAL 50 HOURS	G-22
[4] CHECK POINTS OF EVERY 50 HOURS	G-25
[5] CHECK POINTS OF EVERY 100 HOURS	G-27
[6] CHECK POINTS OF EVERY 200 HOURS	G-36
[7] CHECK POINTS OF EVERY 300 HOURS	G-39
[8] CHECK POINTS OF EVERY 400 HOURS	G-40
[9] CHECK POINT OF EVERY 500 HOURS	G-40
[10]CHECK POINTS OF EVERY 1000 HOURS OR EVERY 1 YEAR	G-40
[11]CHECK POINTS OF EVERY 1 YEAR.....	G-41
[12]CHECK POINTS OF EVERY 2 YEARS	G-43
[13]CHECK POINT OF EVERY 4 YEARS.....	G-44
[14]OTHERS.....	G-45
8. SPECIAL TOOLS	G-48
[1] SPECIAL TOOLS FOR ENGINE.....	G-48
[2] SPECIAL TOOLS FOR MACHINE	G-48
9. TIRES	G-55
[1] TYPE OF TIRE	G-55
[2] TIRE PRESSURE.....	G-55
[3] VEHICLE LIMITATIONS.....	G-56
[4] CARGO BED	G-56
[5] SHOCK ABSORBERS	G-57

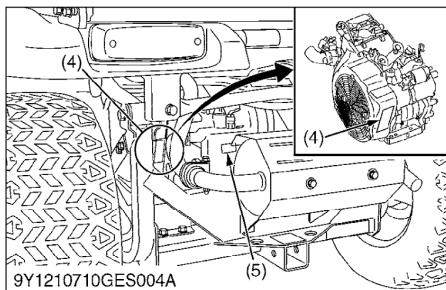
1. PRODUCT IDENTIFICATION



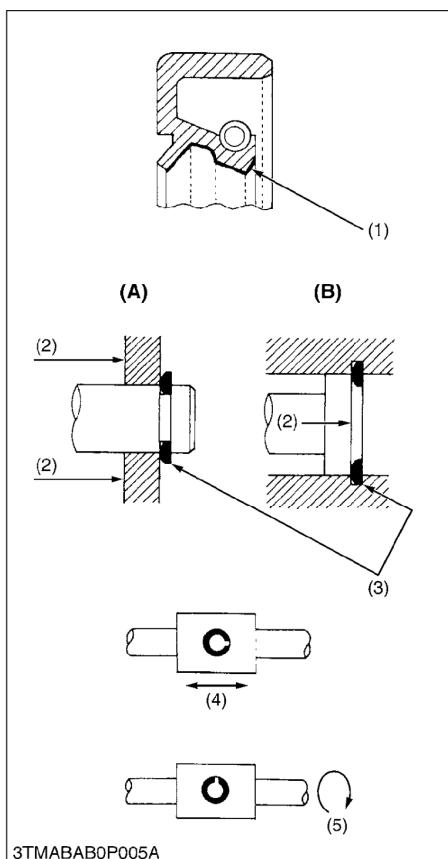
When contacting your local KUBOTA distributor, always specify engine serial number, product serial number and hour meter reading.

(1) Vehicle Serial Number	(4) Engine Serial Number
(2) Vehicle Identification Number	(5) Transmission Assembly Serial Number
(3) ROPS Serial Number	

9Y1210710GES0001US0



2. GENERAL PRECAUTIONS



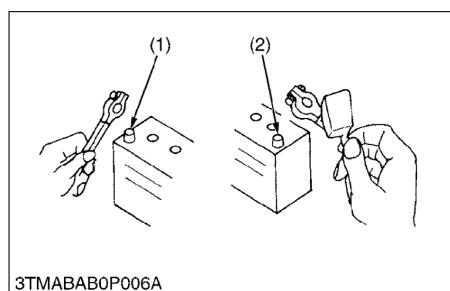
- When you disassemble, carefully put the parts in a clean area to make it easy to find the parts. You must install the screws, bolts and nuts in their initial position to prevent the reassembly errors.
- When it is necessary to use special tools, use KUBOTA special tools. Refer to the drawings when you make special tools that you do not use frequently.
- Before you disassemble or repair machine, make sure that you always disconnect the ground cable from the battery first.
- Remove oil and dirt from parts before you measure.
- Use KUBOTA genuine parts for replacement to keep the machine performance and to make sure of safety.
- You must replace the gaskets and O-rings when you assemble again. Apply grease (1) to new O-rings or oil seals before you assemble.
- When you assemble the external or internal circlips, make sure that the sharp edge (3) faces against the direction from which force (2) is applied.
- When inserting spring pins, their splits must face the direction from which a force is applied. See the figure on the left side.
- To prevent damage to the hydraulic system, use only specified fluid or equivalent.
- Clean the parts before you measure them.
- Tighten the fittings to the specified torque. Too much torque can cause damage to the hydraulic units or the fittings. Not sufficient torque can cause oil leakage.
- When you use a new hose or pipe, tighten the nuts to the specified torque. Then loosen (approx. by 45°) and let them be stable before you tighten to the specified torque (This is not applied to the parts with seal tape).
- When you remove the two ends of a pipe, remove the lower end first.
- Use two pliers in removal and installation. One to hold the stable side, and the other to turn the side you remove to prevent twists.
- Make sure that the sleeves of flared connectors and tapers of hoses are free of dust and scratches.
- After you tighten the fittings, clean the joint and apply the maximum operation pressure 2 to 3 times to check oil leakage.

(1) Grease
 (2) Force
 (3) Sharp Edge
 (4) Axial Force
 (5) Rotating Movement

(A) External Circlip
 (B) Internal Circlip

WSM000001GEG0106US0

3. HANDLING PRECAUTIONS FOR ELECTRICAL



3TMABAB0P006A

To ensure safety and prevent damage to the machine and surrounding equipment, obey the following precautions in handling electrical parts and wiring.

■ IMPORTANT

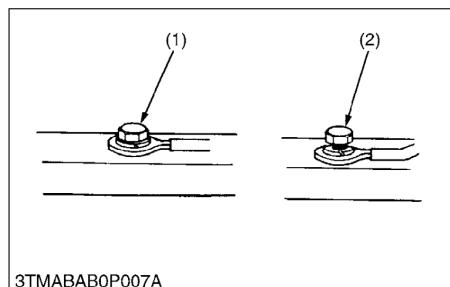
- Check electrical wiring for damage and loosened connection every year.
- When removing the battery cables, disconnect the negative cable first. When installing the battery cables, connect the positive cable first.

(1) Negative Terminal

(2) Positive Terminal

WSM000001GEG0062US0

[1] WIRING

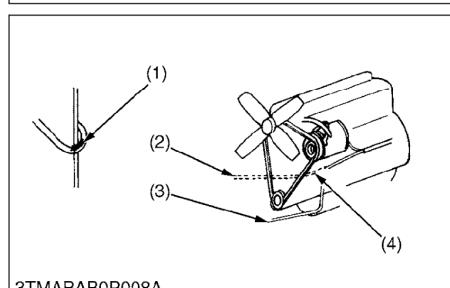


3TMABAB0P007A

- Securely tighten wiring terminals.

(1) Correct
(Securely Tighten)(2) Incorrect
(Loosening Leads to damaged Contact)

WSM000001GEG0063US0

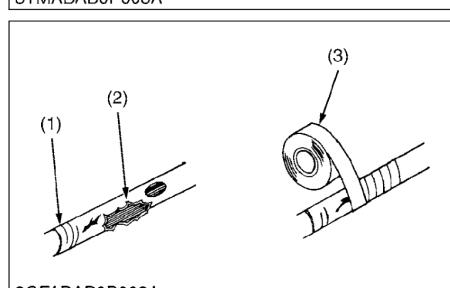


3TMABAB0P008A

- Do not let wiring contact dangerous part.

(1) Dangerous Part (Sharp Edge)
(2) Wiring (Incorrect)(3) Wiring (Correct)
(4) Dangerous Part

WSM000001GEG0064US0



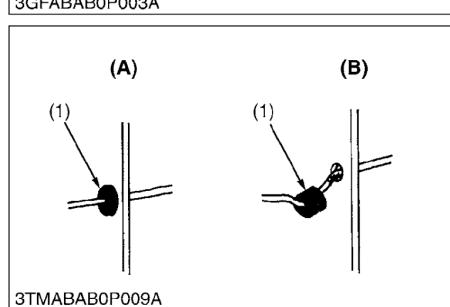
3GFABAB0P003A

- Repair or change torn or aged wiring immediately.

(1) Aged
(2) Torn

(3) Electrical Tape

WSM000001GEG0065US0



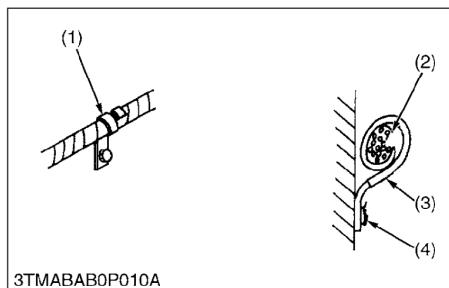
3TMABAB0P009A

- Securely insert grommet.

(1) Grommet

(A) Correct
(B) Incorrect

WSM000001GEG0066US0

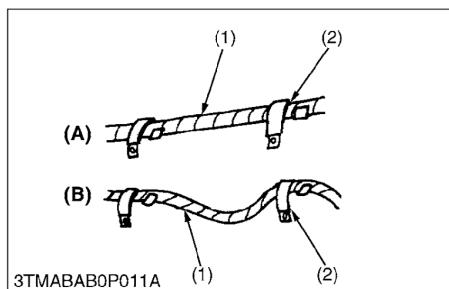


- Securely clamp, being careful not to damage wiring.

(1) Clamp
(Wind Clamp Spirally)
(2) Wire Harness

(3) Clamp
(4) Welding Dent

WSM000001GEG0067USO

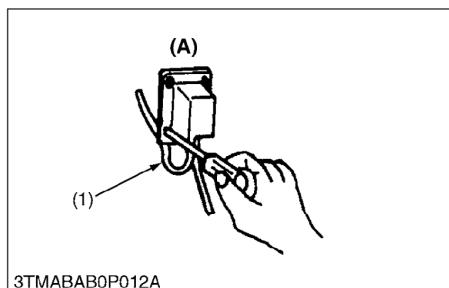


- Clamp wiring so that there is no twist, unnecessary sag, or excessive tension, except for movable part, where sag be required.

(1) Wiring
(2) Clamp

(A) Correct
(B) Incorrect

WSM000001GEG0068USO

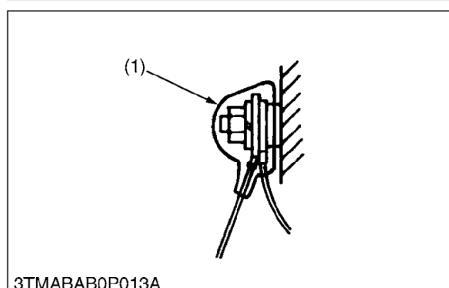


- In installing a part, be careful not to get wiring caught by it.

(1) Wiring

(A) Incorrect

WSM000001GEG0069USO

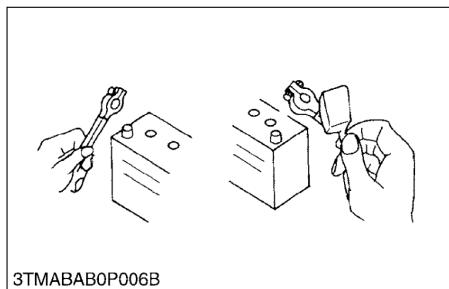


- After installing wiring, check protection of terminals and clamped condition of wiring.

(1) Cover
(Securely Install Cover)

WSM000001GEG0070USO

[2] BATTERY



- Be careful not to confuse positive and negative terminal posts.
- When you remove battery cables, disconnect negative cable first. When you install battery cables, check for polarity and connect positive cable first.
- Do not install any battery with capacity other than is specified (Ah).
- After you connect cables to battery terminal posts, apply high temperature grease to them and securely install terminal covers on them.
- Do not allow dirt and dust to collect on battery.

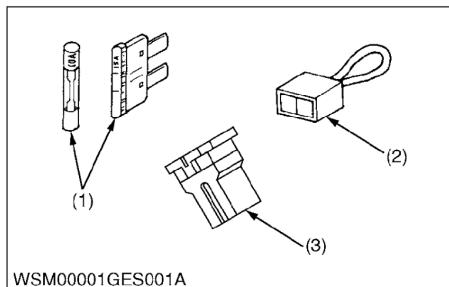
DANGER

To avoid serious injury or death:

- Be careful not to let battery liquid spill on your skin and clothes. If contaminated, wash it off with water immediately.
- Before you recharge the battery, remove it from the machine.
- Before you recharge, remove cell caps.
- Recharge in a well-ventilated place where there is no open flame nearby, as hydrogen gas and oxygen are formed.

WSM000001GEG0071US0

[3] FUSE



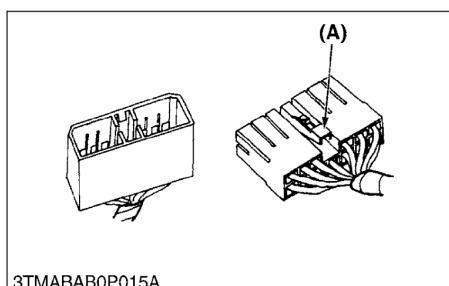
- Use fuses with specified capacity. Neither too large nor small capacity fuse is acceptable.
- Never use steel nor copper wire in place of fuse.
- Do not install working light, radio set, etc. on machine which is not provided with reserve power supply.
- Do not install accessories if fuse capacity of reserve power supply is exceeded.

(1) Fuse
(2) Fusible Link

(3) Slow Blow Fuse

WSM000001GEG0072US0

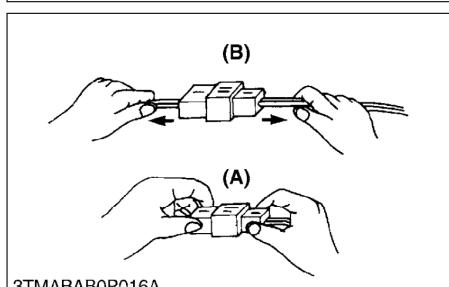
[4] CONNECTOR



- For connector with lock, push lock to separate.

(A) Push

WSM000001GEG0073US0

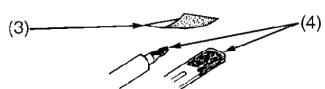


- In separating connectors, do not pull wire harnesses.
- Hold connector bodies to separate.

(A) Correct

(B) Incorrect

WSM000001GEG0074US0

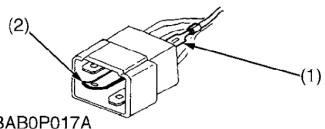


- Use sandpaper to remove rust from terminals.
- Repair deformed terminal. Make sure that there is no terminal being exposed or displaced.

(1) Exposed Terminal
(2) Deformed Terminal

(3) Sandpaper
(4) Rust

WSM000001GEG0075USO



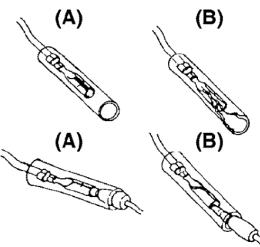
3TMABAB0P017A

- Make sure that there is no female connector being too open.

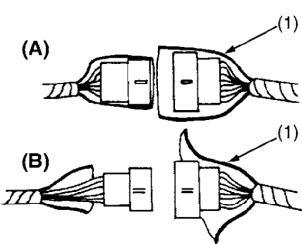
(A) Correct

(B) Incorrect

WSM000001GEG0076USO



3TMABAB0P018A



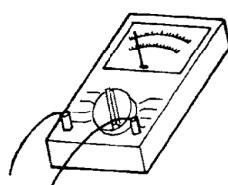
3TMABAB0P019A

- Make sure that plastic cover is large enough to cover whole connector.

(1) Cover

(A) Correct
(B) Incorrect

WSM000001GEG0077USO

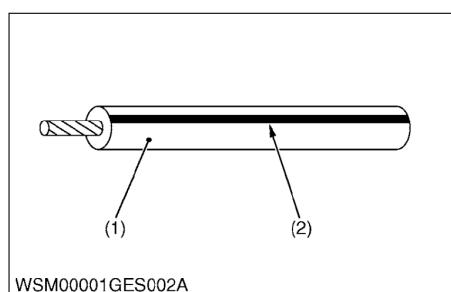


3TMABAB0P020A

- Use tester correctly following manual provided with tester.
- Check for polarity and range.

WSM000001GEG0078USO

[6] COLOR OF WIRING



- Colors of wire are specified to the color codes.
- This symbol of "/" shows color with stripe (s).

(An example)

Red stripe on white color: W/R

Color of wiring	Color code
Black	B
Brown	Br
Green	G
Gray	Gy or Gr
Blue	L
Light Green	Lg
Orange	Or
Pink	P
Purple	Pu or V
Red	R
Sky Blue	Sb
White	W
Yellow	Y

(1) Wire Color

(2) Stripe

WSM000001GEG0079USO