

# WSM

---

## WORKSHOP MANUAL **TRACTOR**

**B2050,B2350,B2650,B3150**

---

**Kubota**

# TO THE READER

This Workshop Manual tells the servicing personnel about the mechanism, servicing and maintenance of the B2050, B2350, B2650 and B3150. It contains 4 parts: **"Information"**, **"General"**, **"Mechanism"** and **"Servicing"**.

## ■ Information

This section primarily contains information below.

- Safety First
- Safety Decal
- Specifications
- Dimensions

## ■ 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.

Since this manual includes many models, information or illustrations and photographs can show more than one model.

© KUBOTA Corporation 2014

March, 2014

# **I INFORMATION**

# INFORMATION

## CONTENTS

1. SAFETY FIRST .....	I-1
2. SAFETY DECALS .....	I-4
3. SPECIFICATIONS .....	I-7
4. TRAVELING SPEEDS .....	I-11
5. DIMENSIONS .....	I-13

# 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, may result in minor or moderate injury.

### ■ IMPORTANT

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

### ■ NOTE

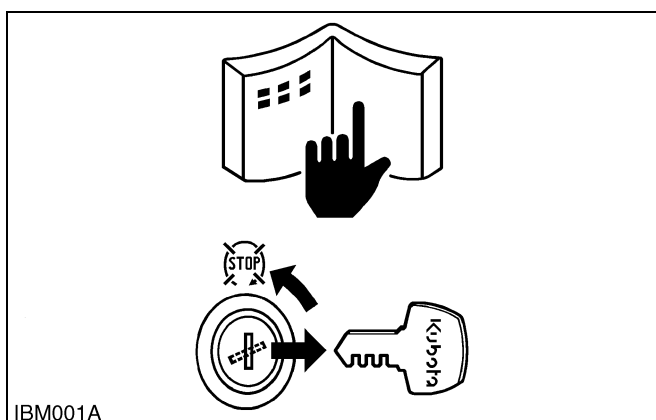
- Gives helpful information.

WSM000001INI0001US1

## 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.

WSM000001INI0010US0

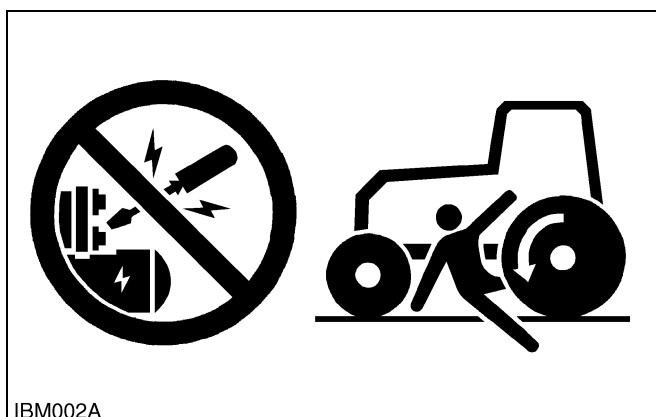


IBM001A

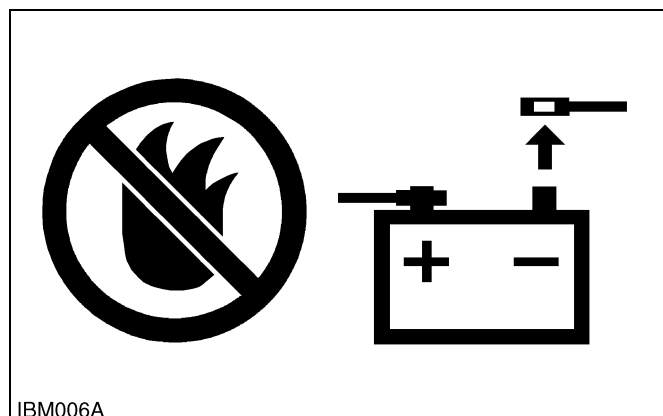
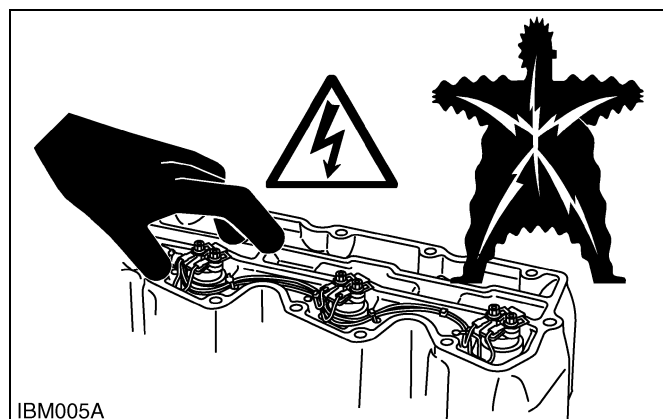
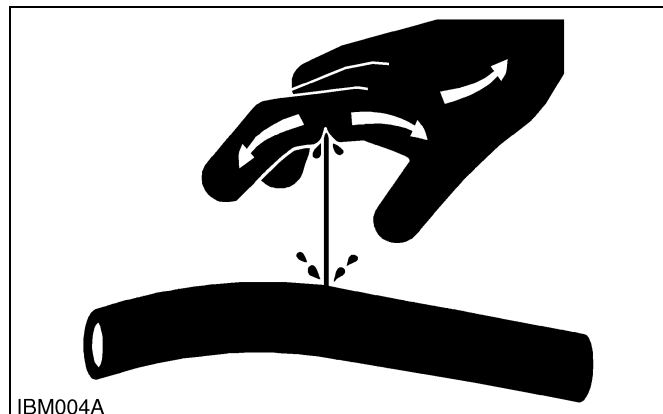
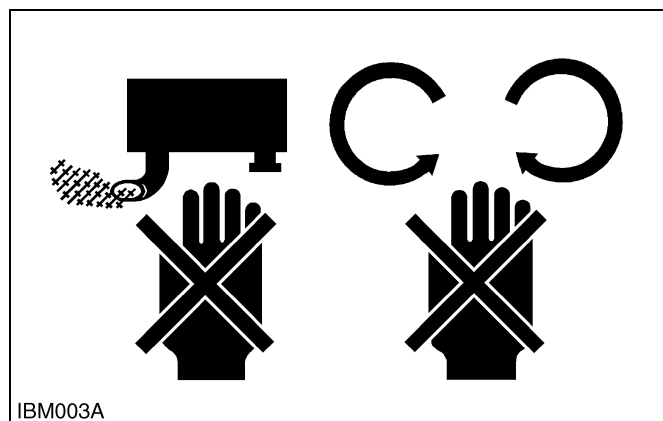
## START SAFELY

- 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.

WSM000001INI0015US0



IBM002A



### OPERATE SAFELY

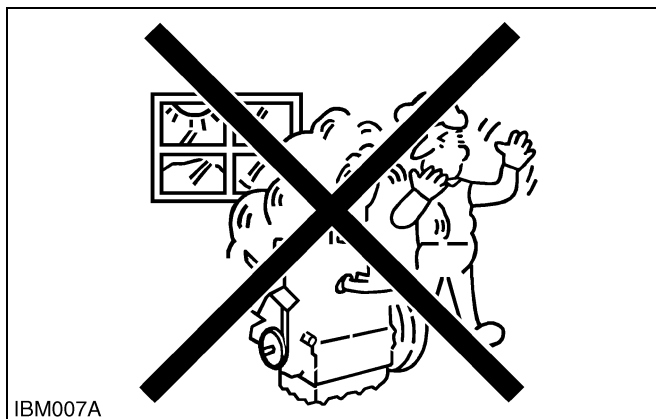
- Do not use the machine after you consume alcohol or medication or when you are tired.
- Put on applicable clothing and safety equipment.
- Use applicable tools only. Do not use alternative tools or parts.
- When 2 or more persons do servicing, make sure that you do it safely.
- Do not operate below 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.

WSM000001INI0012US0

### 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.

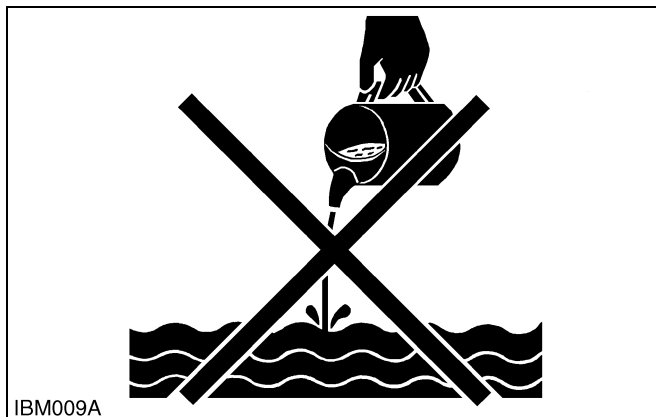
WSM000001INI0005US0



### **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.

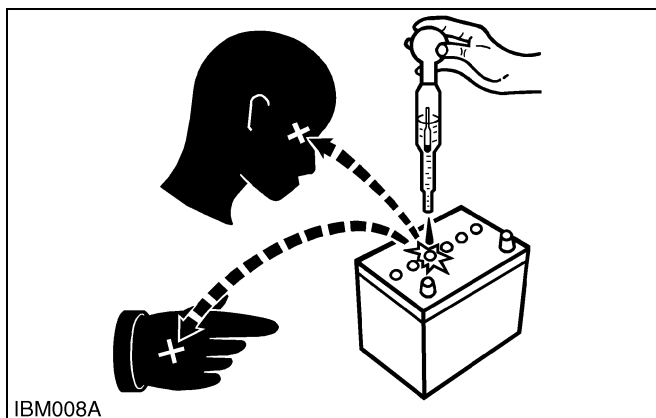
WSM000001INI0006US0



### **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.

WSM000001INI0008US0



### **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

The following safety decals (pictorial safety labels) 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.

WSM000001INI0014US0

(1) Part No. 6C300-3012-2



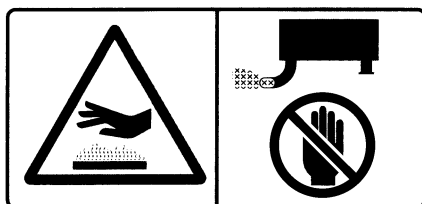
(2) Part No. 6C090-4958-2

Do not get your hands close to engine fan and fan belt.



(3) Part No. 6C430-4959-1

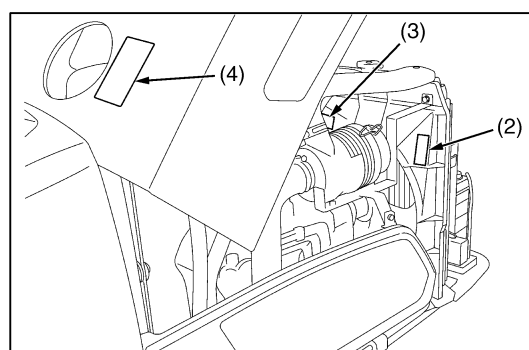
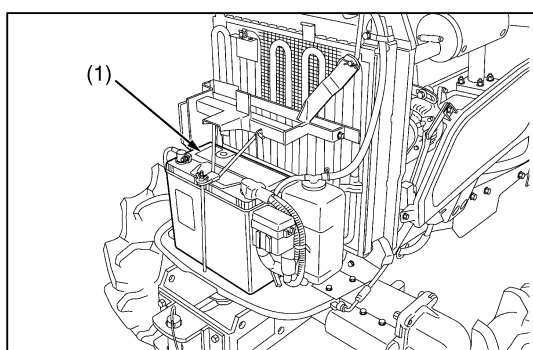
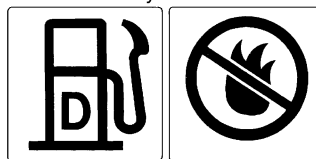
Do not touch hot surface like muffler, etc.



(4) Part No. 3A481-9853-1

Diesel fuel only.

No fire.



9Y1210982ICI001US

9Y1210982INI0001US0

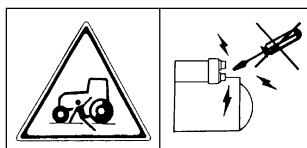


- (1) Part No. 6C090-4958-2  
Do not get your hands close to engine fan and fan belt.



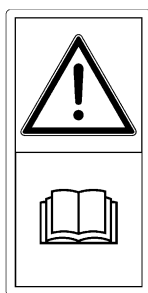
1AGAIAZAP110A

- (2) Part No. K3512-4718-1  
Start engine from operator's seat only.



1BDABANAP083B

- (3) Part No. TD179-3491-1  
Carefully read operator's manual before handling the machine.  
Observe instructions and safety rules when operating.



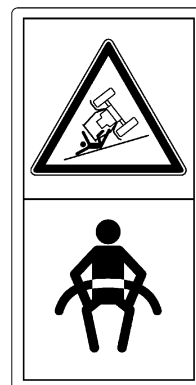
1AGAWREAP088A

- (4) Part No. 6C392-9848-1  
Always lock ROPS in upright position unless it has to be folded down to allow operation underneath trees or bushes.  
When ROPS is locked in upright position, seat belt should be used.

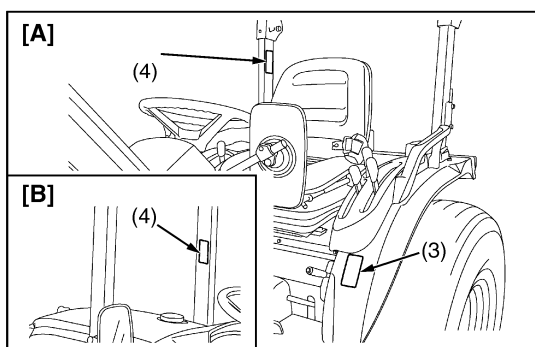
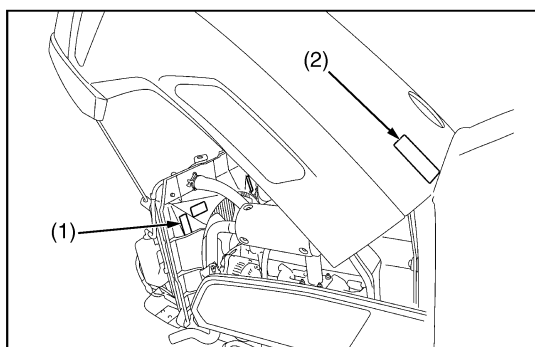


1AGAEDBAP0430

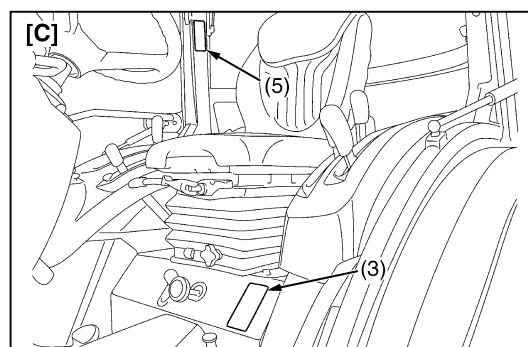
- (5) Part No. 3P903-4902-1  
Seat belt should be used.



1AGAFYAP086A



**[A] Rear Mount Type ROPS**  
**[B] Mid Mount Type ROPS**



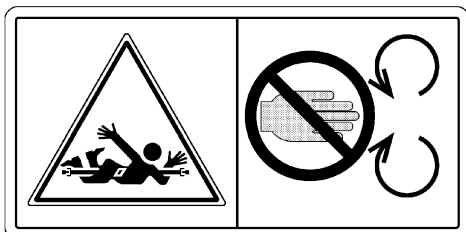
**[C] CAB Type**

9Y1210982ICI002US

9Y1210982INI0002US0

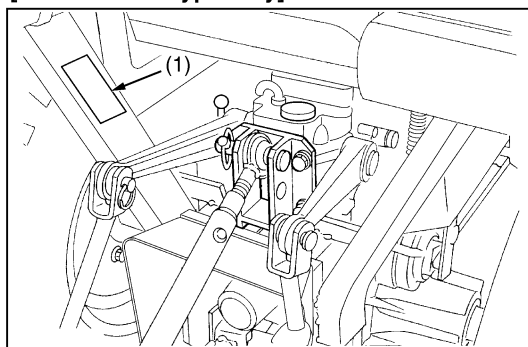
(1) Part No. 6C482-4711-1

- Stay clear of the PTO shaft.
- Keep PTO shield in place at all times.
- Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer.
- For trailing PTO-driven implements, set drawbar at towing position.  
(see operator's manual)

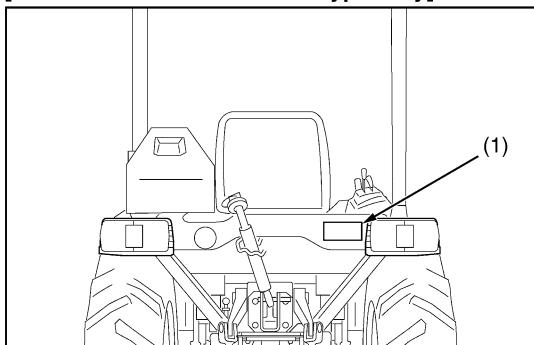


1AGAEEGAP089A

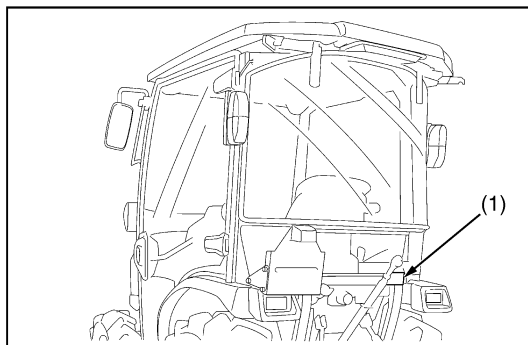
[B3150 ROPS Type only]



[B2050/B2350/B2650 ROPS Type only]



[B2050/B2350/B2650 CAB Type only]



9Y1210982ICI003US

9Y1210982INI0003US0

### CARE OF PICTORIAL SAFETY LABELS

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

9Y1210982INI0004US0

### 3. SPECIFICATIONS

#### [ROPS and CAB HST Type]

Model			B2350	B2650	B3150
PTO power *1			12.5 kW (17.0 PS)	14.6 kW (19.9 PS)	17.4 kW (23.6 PS)
Engine	Maker		KUBOTA		
	Model		D1105	D1305	V1505
	Type		Indirect Injection. Vertical, water-cooled,4cycle diesel		
	Number of cylinders		3		4
	Bore and stroke		78 × 78.4 mm (3.07 × 3.08 in.)	78 × 88 mm (3.07 × 3.46 in.)	78 × 78.4 mm (3.07 × 3.08 in.)
	Total displacement		1123 cm <sup>3</sup> (68.53 cu.in.)	1261 cm <sup>3</sup> (76.95 cu.in.)	1498 cm <sup>3</sup> (91.41 cu.in.)
	Engine gross power *1		15.9 kW (21.6 PS)	18.5 kW (25.2 PS)	21.8 kW (29.6 PS)
	Rated revolution		2500 min <sup>-1</sup> (rpm)		
	Maximum torque		71.3 N·m (7.27 kgf·m, 52.6 lbf·ft)	84.0 N·m (8.57 kgf·m, 62.0 lbf·ft)	97.9 N·m (9.98 kgf·m, 72.2 lbf·ft)
	Battery		12 V, RC : 80 min, CCA (SAE) : 430 A, CCA (EN) : 360 A		
	Fuel		Diesel fuel No.2 [above -10 °C (14 °F)], Diesel fuel No.1 [below -10 °C (14 °F)]		
Capacities	Fuel tank		27 L (7.1 U.S.gals, 5.9 Imp.gals)		
	Engine crankcase (with filter)		3.1 L (3.3 U.S.qts, 2.7 Imp.qts)	4.0 L (4.2 U.S.qts, 3.5 Imp.qts)	
	Engine coolant		4.6 L (4.9 U.S.qts, 4.0 Imp.qts)		
	Transmission case		17.0 L (4.49 U.S.gals, 3.74 Imp.gals)		
Dimensions	Overall length (with 3P)	ROPS	2730 mm (107.5 in.)		2937 mm (115.6 in.)
		CAB	2887 mm (113.7 in.)		3007 mm (118.4 in.)
	Overall width (min. tread)		1249 mm (49.17 in.)		1365 mm (53.74 in.)
	Overall height	Rear ROPS	2353 mm (92.64 in.)		2327 mm (91.61 in.)
		CAB	2112 mm (83.15 in.)		2140 mm (84.25 in.)
	Wheel base	ROPS	1500 mm (59.06 in.)		1666 mm (65.59 in.)
		CAB	1560 mm (61.42 in.)		1666 mm (65.59 in.)
	Minimum ground clearance		290 mm (11.4 in.)		318 mm (12.5 in.)
	Tread	Front	830 mm (32.7 in.)		936 mm (36.8 in.)
		Rear	1006 mm (39.61 in.)		1050 mm (41.34 in.)
Weight	Rear ROPS		839 to 865 kg (1850 to 1900 lbs)		908 to 934 kg (2010 to 2050 lbs)
	CAB		1082 to 1108 kg (2386 to 2442 lbs)		1124 to 1150 kg (2478 to 2535 lbs)
Clutch			N/A		
Traveling system	Tires	Front	6.00-12		180/85D12
		Rear	9.5-18		12.4-16
	Steering		hydraulic power steering		
	Transmission		Main-hydrostatic transmission, 3 range gear shift		
	Brake		Wet disk type		
Hydraulic unit	Minimum turning radius (with brake)		2.1 m (6.9 feet)		
	Hydraulic control system		Position Control		
	Pump capacity		3P : 18.9 L/min (4.99 gals/min), Power steering : 14.2 L/min (3.75 gals/min)		
	3-point hitch		SAE Category 1		
	Max. lift force	At lift points	970 kg (2138 lbs)		
		600 mm behind lift point	760 kg (1676 lbs)		
	Remote hydraulic control		2 Standard		
Remote control valve coupler		Hose connection type outlet			
PTO	Rear-PTO		SAE 1-3/8, 6 splines		
		PTO / Engine speed	540 min <sup>-1</sup> (rpm) / 2400 min <sup>-1</sup> (rpm)		
	Mid-PTO		USA No.5 (KUBOTA 10-tooth) involute spline		
		PTO / Engine speed	2500 min <sup>-1</sup> (rpm) / 2500 min <sup>-1</sup> (rpm)		

Model		B2350	B2650	B3150
The level of protection against hazardous substances *2	ROPS	N/A		
	CAB	Category 1		
Noise at the operator's ear *3	ROPS	84.5 dB (A)	85.8 dB (A)	85.0 dB (A)
	CAB/door closed	81.2 dB (A)	85.0 dB (A)	83.0 dB (A)
	CAB/door opened	82.8 dB (A)	85.8 dB (A)	82.0 dB (A)
Noise of the tractor in motion *4	ROPS	80 dB (A)	80 dB (A)	80 dB (A)
	CAB	80 dB (A)	80 dB (A)	82 dB (A)
Value of the vibration level *5	GRAMMER MSG 83/511	Light driver	1.13 m/s <sup>2</sup>	
		Heavy driver	1.00 m/s <sup>2</sup>	
	GRAMMER MSG 93/511	Light driver	1.21 m/s <sup>2</sup>	
		Heavy driver	1.05 m/s <sup>2</sup>	
	SEARS 807	Light driver	1.06 m/s <sup>2</sup>	
		Heavy driver	1.24 m/s <sup>2</sup>	
	SEARS 830	Light driver	1.00 m/s <sup>2</sup>	
		Heavy driver	1.14 m/s <sup>2</sup>	
	COBO SC74/M91 *6	Light driver	1.13 m/s <sup>2</sup>	
		Heavy driver	0.75 m/s <sup>2</sup>	

The company reserves the right to change the specifications without notice.

#### ■ NOTE

- \*1 : Manufacturer's estimate
- \*2 : According to EN 15695-1:2009
- \*3 : Measured according to Directive 2009/76/EC ANNEX II
- \*4 : Measured according to Directive 2009/63/EC
- \*5 : Measured according to Directive 78/764/EEC
- \*6 : Except CAB model.

**ROPS Manual Transmission Type**

Model			B2050	B2350	B2650
PTO power *1			11.9 kW (16.2 PS)	13.0 kW (17.7 PS)	15.1 kW (20.5 PS)
Engine	Maker		KUBOTA		
	Model		D1105		D1305
	Type		Indirect Injection. Vertical, water-cooled,4cycle diesel		
	Number of cylinders		3		
	Bore and stroke		78 × 78.4 mm (3.07 × 3.08 in.)		78 × 88 mm (3.07 × 3.46 in.)
	Total displacement		1123 cm <sup>3</sup> (68.53 cu.in.)		1261 cm <sup>3</sup> (76.95 cu.in.)
	Engine gross power *1		14.6 kW (19.8 PS)	15.9 kW (21.6 PS)	18.5 kW (25.2 PS)
	Rated revolution		2500 min <sup>-1</sup> (rpm)		
	Maximum torque		68.1 N·m (6.4 kgf·m, 50.2 lbf·ft)	71.3 N·m (7.27 kgf·m, 52.6 lbf·ft)	84.0 N·m (8.57 kgf·m, 62.0 lbf·ft)
	Battery		12 V, RC : 80 min, CCA (SAE) : 430 A, CCA (EN) : 360 A		
	Fuel		Diesel fuel No.2 [above -10 °C (14 °F)], Diesel fuel No.1 [below -10 °C (14 °F)]		
Capacities	Fuel tank		27 L (7.1 U.S.gals, 5.9 Imp.gals)		
	Engine crankcase (with filter)		3.1 L (3.3 U.S.qts, 2.7 Imp.qts)		4.0 L (4.2 U.S.qts, 3.5 Imp.qts)
	Engine coolant		4.6 L (4.9 U.S.qts, 4.0 Imp.qts)		
	Transmission case		16.5 L (4.36 U.S.gals, 3.63 Imp.gals)		
Dimensions	Overall length (with 3P)		2730 mm (107.5 in.)		
	Overall width (min. tread)		1249 mm (49.17 in.)		
	Overall height	Rear ROPS	2353 mm (92.64 in.)		
		Center ROPS	2069 mm (81.46 in.)	—	2069 mm (81.46 in.)
	Wheel base		1500 mm (59.06 in.)		
	Minimum ground clearance		290 mm (11.4 in.)		
	Tread	Front	830 mm (32.7 in.)		
		Rear	1006 mm (39.61 in.)		
Weight	Rear ROPS		819 to 845 kg (1810 to 1860 lbs)		
	Center ROPS		839 to 865 kg (1850 to 1900 lbs)	—	839 to 865 kg (1850 to 1900 lbs)
Clutch			Dry single plate		
Traveling system	Tires	Front	6.00-12		
		Rear	9.5-18		
	Steering		hydraulic power steering		
	Transmission		Gear shift, 9 foreword and 9 reverse		
	Brake		Wet disk type		
	Minimum turning radius (with brake)		2.1 m (6.9 feet)		
Hydraulic unit	Hydraulic control system		Position Control		
	Pump capacity		3P : 18.9 L/min (4.99 gals/min), Power steering : 14.2 L/min (3.75 gals/min)		
	3-point hitch		SAE Category 1		
	Max. lift force	At lift points	970 kg (2138 lbs)		
		600 mm behind lift point	760 kg (1676 lbs)		
	Remote hydraulic control		1 Standard		
	Remote control valve coupler		Block type outlet		
PTO	Rear-PTO		SAE 1-3/8, 6 splines		
		PTO / Engine speed	540 min <sup>-1</sup> (rpm) / 2400 min <sup>-1</sup> (rpm)		
	Mid-PTO		USA No.5 (KUBOTA 10-tooth) involute spline		
		PTO / Engine speed	2500 min <sup>-1</sup> (rpm) / 2500 min <sup>-1</sup> (rpm)		
The level of protection against hazardous substances *2			N/A		
Noise at the operator's ear *3			83.5 dB (A)	83.5 dB (A)	85.4 dB (A)
Noise of the tractor in motion *4			77 dB (A)	77 dB (A)	79 dB (A)

Model			B2050	B2350	B2650
Value of the vibration level *5	GRAMMER MSG 83/511	Light driver		1.13 m/s <sup>2</sup>	
		Heavy driver		1.00 m/s <sup>2</sup>	
	GRAMMER MSG 93/511	Light driver		1.21 m/s <sup>2</sup>	
		Heavy driver		1.05 m/s <sup>2</sup>	
	SEARS 807	Light driver		1.06 m/s <sup>2</sup>	
		Heavy driver		1.24 m/s <sup>2</sup>	
	SEARS 830	Light driver		1.00 m/s <sup>2</sup>	
		Heavy driver		1.14 m/s <sup>2</sup>	
	COBO SC74/M91	Light driver		1.13 m/s <sup>2</sup>	
		Heavy driver		0.75 m/s <sup>2</sup>	

The company reserves the right to change the specifications without notice.

■ **NOTE**

- \*1 : Manufacturer's estimate
- \*2 : According to EN 15695-1:2009
- \*3 : Measured according to Directive 2009/76/EC ANNEX II
- \*4 : Measured according to Directive 2009/63/EC
- \*5 : Measured according to Directive 78/764/EEC

9Y1210982INI0005US0

## 4. TRAVELING SPEEDS

[ROPS and CAB HST Type]

(At rated engine rpm)

Model		B2350 / B2650				
Tire size (Rear)		8-16 Farm	9.5-16 Farm	9.5-18 Farm	31 × 13.5-15 Turf	315/75D-15 Turf
	Range gear shift lever	km/h (mile/h)				
Forward	Low	0 to 4.61 (0 to 2.86)	0 to 4.94 (0 to 3.06)	0 to 5.24 (0 to 3.25)	0 to 4.55 (0 to 2.82)	0 to 4.98 (0 to 3.09)
	Middle	0 to 7.57 (0 to 4.70)	0 to 8.09 (0 to 5.02)	0 to 8.59 (0 to 5.33)	0 to 7.46 (0 to 4.63)	0 to 8.17 (0 to 5.07)
	High	0 to 19.12 (0 to 11.88)	0 to 20.45 (0 to 12.70)	0 to 21.71 (0 to 13.48)	0 to 18.85 (0 to 11.71)	0 to 20.65 (0 to 12.83)
	Max. Speed (at 2650 engine rpm)	20.27 (12.59)	21.68 (13.47)	23.01 (14.29)	19.98 (12.41)	21.89 (13.60)
Reverse	Low	0 to 3.69 (0 to 2.29)	0 to 3.95 (0 to 2.45)	0 to 4.19 (0 to 2.60)	0 to 3.64 (0 to 2.26)	0 to 3.99 (0 to 2.47)
	Middle	0 to 6.05 (0 to 3.75)	0 to 6.48 (0 to 4.02)	0 to 6.87 (0 to 4.26)	0 to 5.97 (0 to 3.70)	0 to 6.54 (0 to 4.06)
	High	0 to 15.29 (0 to 9.500)	0 to 16.36 (0 to 10.16)	0 to 17.37 (0 to 10.79)	0 to 15.08 (0 to 9.370)	0 to 16.52 (0 to 10.26)
	Max. Speed (at 2650 engine rpm)	16.21 (10.07)	17.34 (10.77)	18.41 (11.44)	15.98 (9.930)	17.51 (10.88)

Model		B3150	
Tire size (Rear)		12.4-16 Farm	13.6-16 Turf
	Range gear shift lever	km/h (mile/h)	
Forward	Low	0 to 5.57 (0 to 3.46)	0 to 5.76 (0 to 3.57)
	Middle	0 to 9.14 (0 to 5.67)	0 to 9.44 (0 to 5.87)
	High	0 to 23.09 (0 to 14.35)	0 to 23.86 (0 to 14.83)
	Max. Speed (at 2650 engine rpm)	24.48 (15.21)	25.29 (15.71)
Reverse	Low	0 to 4.46 (0 to 2.77)	0 to 4.60 (0 to 2.86)
	Middle	0 to 7.31 (0 to 4.51)	0 to 7.55 (0 to 4.69)
	High	0 to 18.47 (0 to 11.48)	0 to 19.08 (0 to 11.86)
	Max. Speed (at 2650 engine rpm)	19.58 (12.17)	20.23 (12.57)

The company reserves the right to change the specification without notice.

**[ROPS Manual Transmission Type]**

(At rated engine rpm)

Model			B2050 / B2350 / B2650				
Tire size (Rear)			8-16 Farm	9.5-16 Farm	9.5-18 Farm	31 × 13.5-15 Turf	315/75D-15 Turf
		Range gear shift lever	km/h (mile/h)				
Forward	1	Low	1.03 (0.640)	1.10 (0.684)	1.17 (0.727)	1.02 (0.634)	1.12 (0.696)
	2		1.71 (1.06)	1.83 (1.14)	1.95 (1.21)	1.69 (1.05)	1.85 (1.15)
	3		2.66 (1.65)	2.84 (1.76)	3.02 (1.88)	2.62 (1.63)	2.87 (1.78)
	4	Middle	1.92 (1.19)	2.05 (1.27)	2.18 (1.35)	1.89 (1.17)	2.07 (1.29)
	5		3.19 (1.98)	3.41 (2.12)	3.62 (2.25)	3.14 (1.95)	3.44 (2.14)
	6		4.94 (3.07)	5.29 (3.29)	5.61 (3.49)	4.87 (3.03)	5.34 (3.32)
	7	High	6.89 (4.28)	7.37 (4.58)	7.83 (4.87)	6.79 (4.22)	7.44 (4.62)
	8		11.43 (7.102)	12.23 (7.599)	12.98 (8.065)	11.27 (7.003)	12.35 (7.674)
	9		17.74 (11.02)	18.97 (11.79)	20.14 (12.51)	17.49 (10.87)	19.16 (11.91)
Reverse	1	Low	0.94 (0.58)	1.01 (0.628)	1.07 (0.665)	0.93 (0.58)	1.02 (0.634)
	2		1.57 (0.976)	1.67 (1.04)	1.78 (1.11)	1.54 (0.957)	1.69 (1.05)
	3		2.43 (1.51)	2.60 (1.62)	2.76 (1.71)	2.40 (1.49)	2.62 (1.63)
	4	Middle	1.76 (1.09)	1.88 (1.17)	1.99 (1.24)	1.73 (1.07)	1.90 (1.18)
	5		2.91 (1.81)	3.12 (1.94)	3.31 (2.06)	2.87 (1.78)	3.15 (1.96)
	6		4.52 (2.81)	4.83 (3.00)	5.13 (3.19)	4.46 (2.77)	4.88 (3.03)
	7	High	6.30 (3.91)	6.74 (4.19)	7.15 (4.44)	6.21 (3.86)	6.80 (4.23)
	8		10.45 (6.493)	11.18 (6.947)	11.87 (7.376)	10.30 (6.400)	11.29 (7.015)
	9		16.22 (10.08)	17.35 (10.78)	18.41 (11.44)	15.99 (9.936)	17.51 (10.88)
	1	Low	17.19 (10.68)	18.39 (11.43)	19.52 (12.13)	16.95 (10.53)	18.57 (11.54)
	2						
	3						
	4	Middle					
	5						
	6						
	7	High					
	8						
	9						

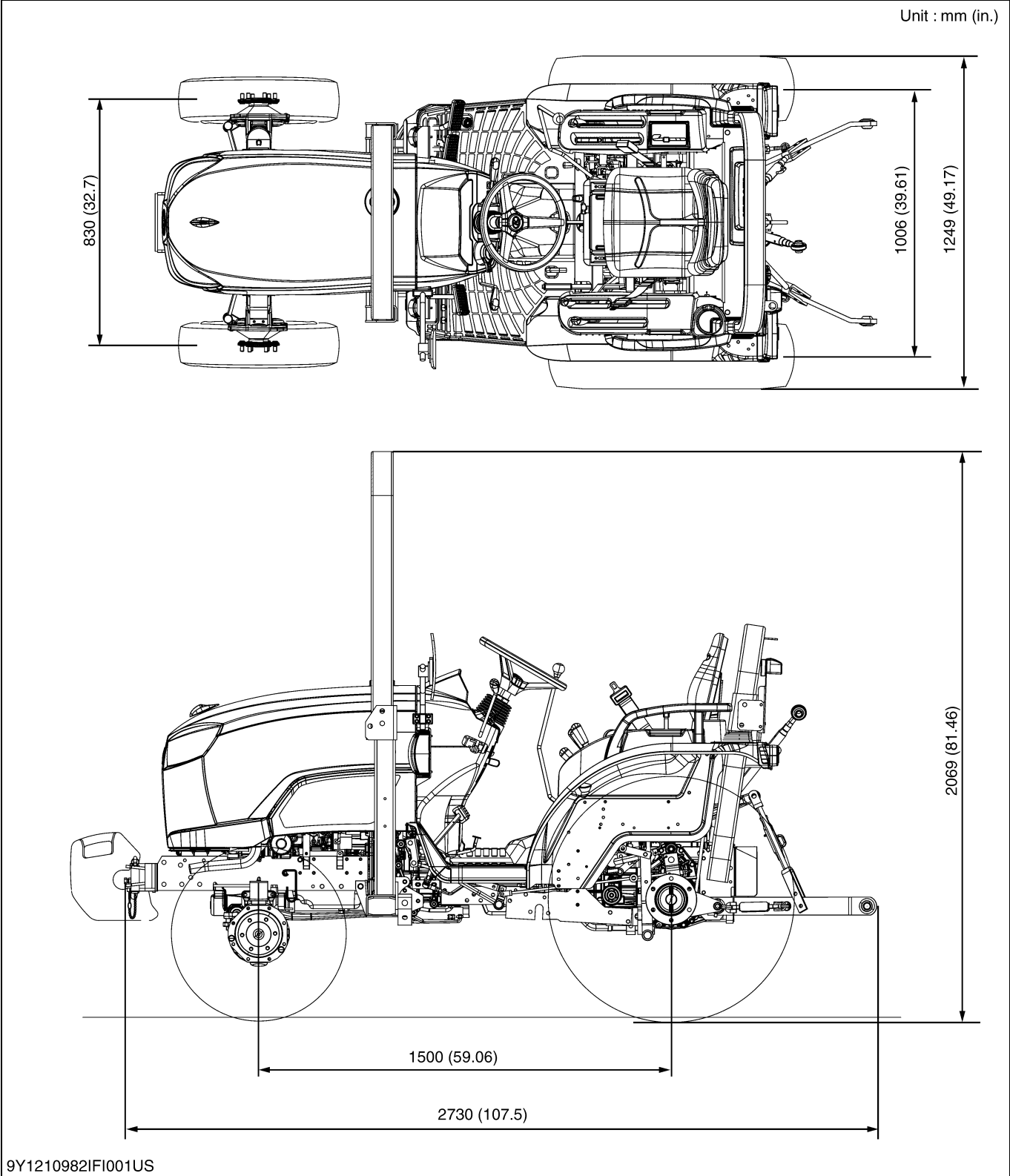
The company reserves the right to change the specification without notice.

9Y1210982INI0006US0

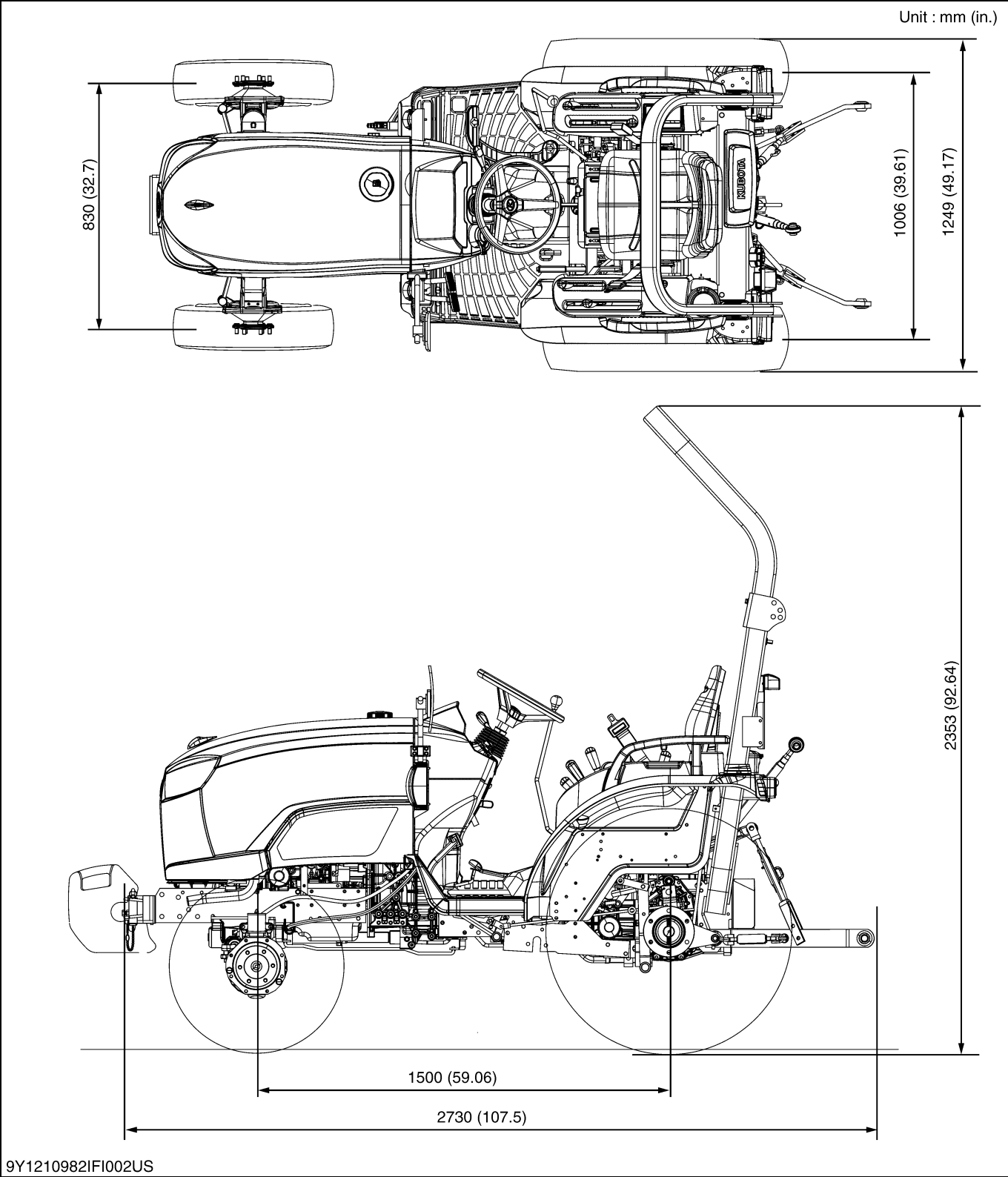


# 5. DIMENSIONS

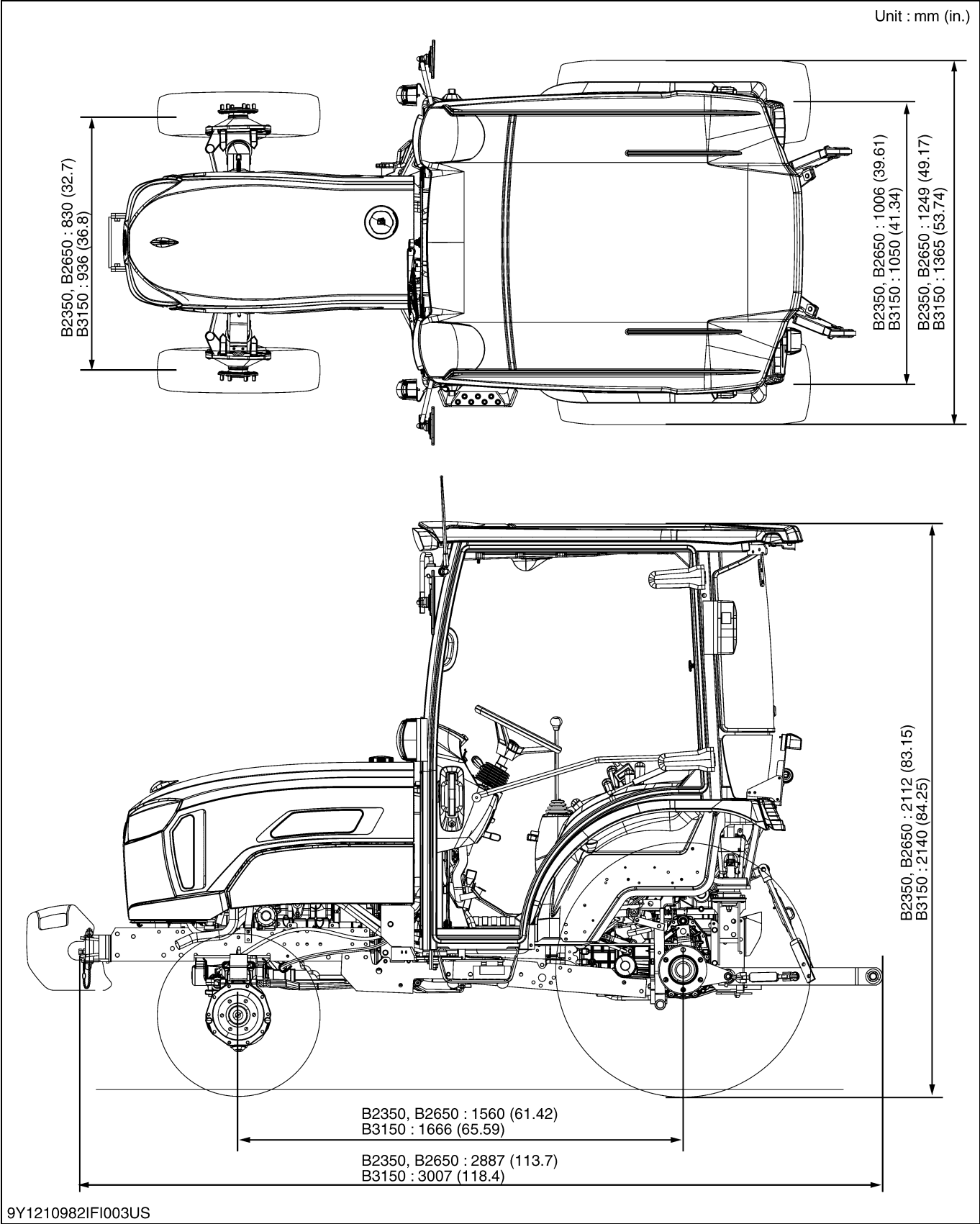
## Center ROPS



ROPS



CABIN



9Y1210982INI0009US0

# **G GENERAL**

# GENERAL

## CONTENTS

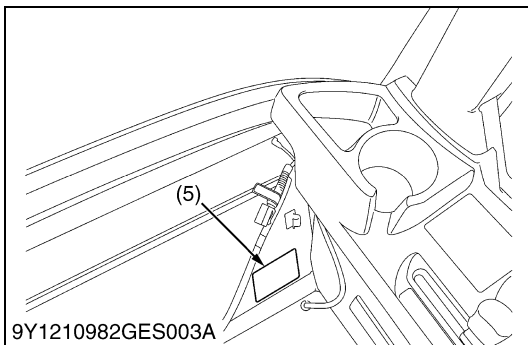
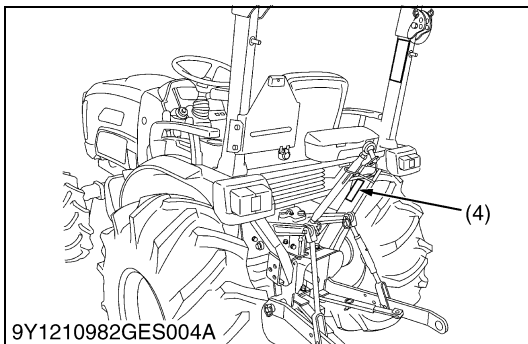
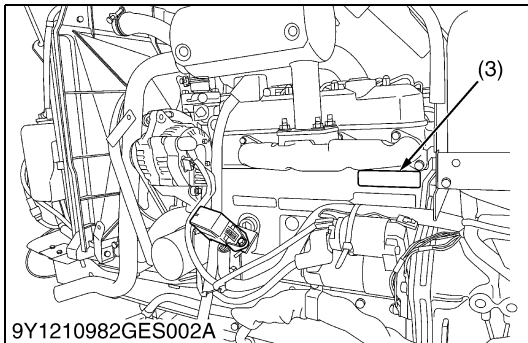
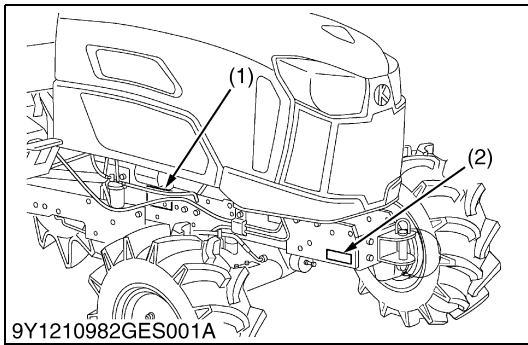
1. TRACTOR IDENTIFICATION .....	G-1
2. GENERAL PRECAUTIONS.....	G-2
3. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING .....	G-3
[1] WIRING .....	G-3
[2] BATTERY .....	G-5
[3] FUSE .....	G-5
[4] CONNECTOR .....	G-5
[5] HANDLING OF CIRCUIT TESTER .....	G-6
[6] COLOR OF WIRING .....	G-7
4. LUBRICANTS, FUEL AND COOLANT .....	G-8
5. TIGHTENING TORQUES .....	G-10
[1] GENERAL USE SCREWS, BOLTS AND NUTS .....	G-10
[2] STUD BOLTS .....	G-10
[3] METRIC SCREWS, BOLTS AND NUTS .....	G-11
[4] AMERICAN STANDARD SCREWS, BOLTS AND NUTS WITH UNC OR UNF THREADS .....	G-11
[5] PLUGS .....	G-11
6. MAINTENANCE CHECK LIST .....	G-12
7. CHECK AND MAINTENANCE .....	G-14
[1] DAILY CHECK.....	G-14
[2] CHECK POINTS OF EVERY 50 HOURS .....	G-18
[3] CHECK POINTS OF EVERY 100 HOURS .....	G-22
[4] CHECK POINTS OF EVERY 200 HOURS .....	G-29
[5] CHECK POINTS OF EVERY 400 HOURS .....	G-34
[6] CHECK POINT OF EVERY 800 HOURS.....	G-36
[7] CHECK POINT OF EVERY 1500 HOURS .....	G-36
[8] CHECK POINT OF EVERY 3000 HOURS .....	G-36
[9] CHECK POINTS OF EVERY 1 YEAR.....	G-36
[10]CHECK POINTS OF EVERY 2 YEARS .....	G-37
[11]OTHERS.....	G-39
8. SPECIAL TOOLS .....	G-43
[1] SPECIAL TOOLS FOR ENGINE .....	G-43
[2] SPECIAL TOOLS FOR TRACTOR .....	G-50
[3] SPECIAL TOOLS FOR CABIN.....	G-53
9. TIRES .....	G-56
[1] TIRE PRESSURE.....	G-56
[2] WHEEL ADJUSTMENT.....	G-57
(1) Front Wheels .....	G-57
(2) Rear Wheels.....	G-58
[3] BALLAST .....	G-59
10. IMPLEMENT LIMITATIONS .....	G-61

# 1. TRACTOR IDENTIFICATION

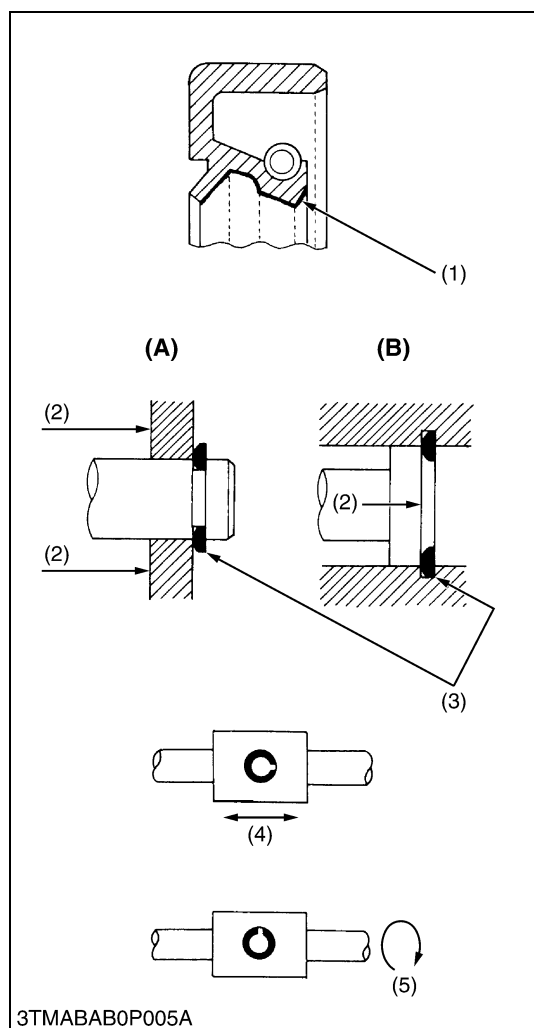
When contacting your local KUBOTA distributor, always specify engine serial number, tractor serial number and hour meter reading.

- |                                  |   |
|----------------------------------|---|
| (1) Tractor Identification Plate | (4) ROPS Identification Plate<br>(ROPS Serial Number)   |
| (2) Tractor Serial Number        | (5) CABIN Identification Plate<br>(CABIN Serial Number) |
| (3) Engine Serial Number         |   |

9Y1210982GEG0001US0



## 2. GENERAL PRECAUTIONS



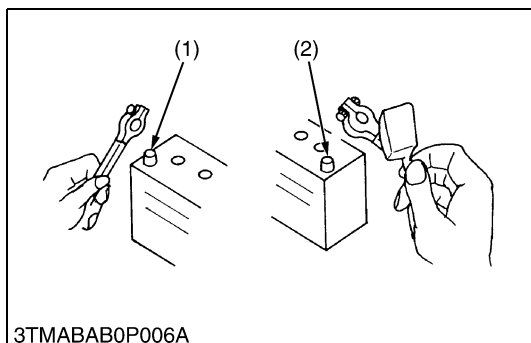
- When you disassemble, carefully put the parts in a clean area to make it easy to find the parts. You must install the screws, bolts and nuts in their initial position to prevent the reassembly errors.
- When it is necessary to use special tools, use KUBOTA special tools. Refer to the drawings when 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 only 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 snap rings, 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 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 examine 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 PARTS AND WIRING



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

#### ■ IMPORTANT

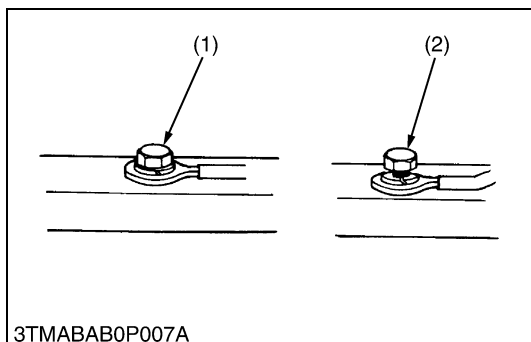
- Check electrical wiring for damage and loosened connection every year. To this end, educate the customer to do his or her own check and at the same time recommend the dealer to perform periodic check for a fee.
- Do not try to modify or remodel any electrical parts and wiring.
- When removing the battery 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

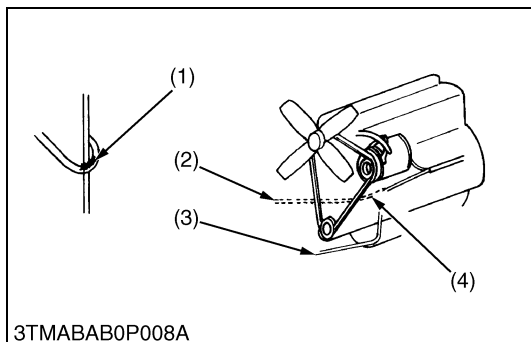


- Securely tighten wiring terminals.

(1) Correct  
(Securely Tighten)

(2) Incorrect  
(Loosening Leads to Faulty Contact)

WSM000001GEG0063US0



- Do not let wiring contact dangerous part.

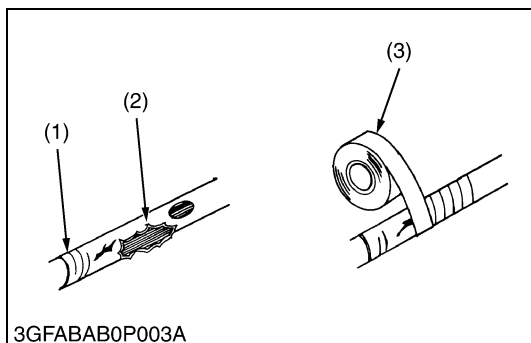
(1) Dangerous Part (Sharp Edge)

(3) Wiring (Correct)

(2) Wiring (Incorrect)

(4) Dangerous Part

WSM000001GEG0064US0



- Repair or change torn or aged wiring immediately.

(1) Aged

(3) Insulating Vinyl Tape

(2) Torn

WSM000001GEG0065US0



Please click here and go  
back to our website.

**BUY NOW**

Then Instant Download the  
Complete Manual.

Thank you very much!