WSM

WORKSHOP MANUAL
TRACTOR

L3130,L3430,L3830,
L4630,L5030

Kubota

KiSC issued 02, 2007 A

TO THE READER

This Workshop Manual has been prepared to provide servicing personnel with information on the mechanism, service and maintenance of KUBOTA Tractor L3130, L3430, L3830, L4630 and L5030. It is divided into two parts, “Mechanism” and “Servicing” for each section.

■ **Mechanism**

Information on the construction and function are included. This part should be understood before proceeding with troubleshooting, disassembling and servicing.

Refer to Diesel engine / Tractor Mechanism Workshop Manual (Code No. 97897-01872 / 97897-18200) for the one which has not been described to this workshop manual.

■ **Servicing**

The heading “General” includes general precautions, check and maintenance and special tools. Other section, there are troubleshooting, servicing specification lists, checking and adjusting, disassembling and assembling, and servicing which cover procedures, precautions, factory specifications and allowable limits.

All information illustrations and specifications contained in this manual are based on the latest product information available at the time of publication.

The right is reserved to make changes in all information at any time without notice.

November 2003

KiSC issued 02, 2007 A

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.

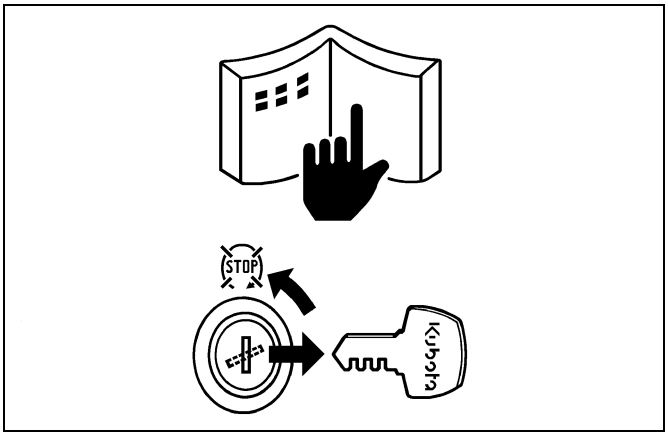
DANGER : Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

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.

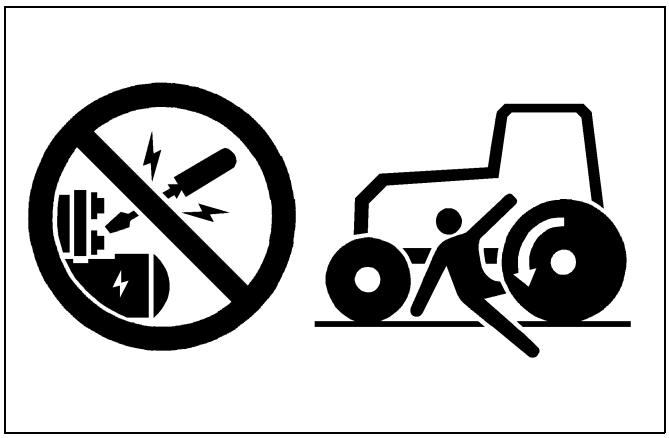
■ IMPORTANT : Indicates that equipment or property damage could result if instructions are not followed.

■ NOTE : Gives helpful information.



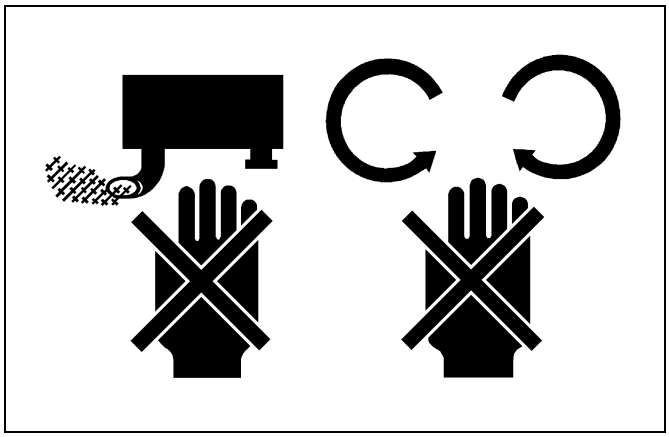
BEFORE SERVICING AND REPAIRING

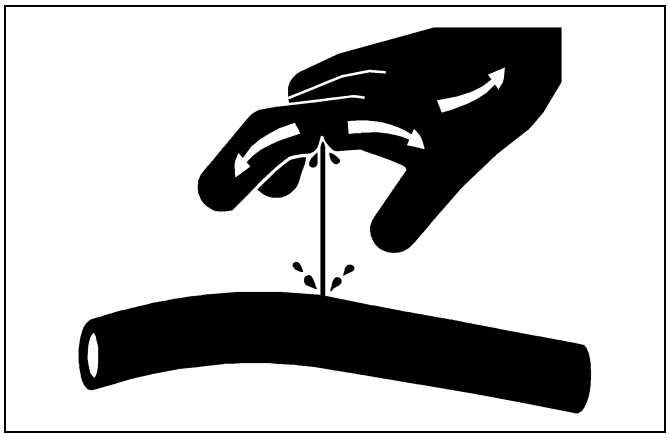
- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a firm and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, and remove the key.
- Disconnect the battery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



SAFETY STARTING

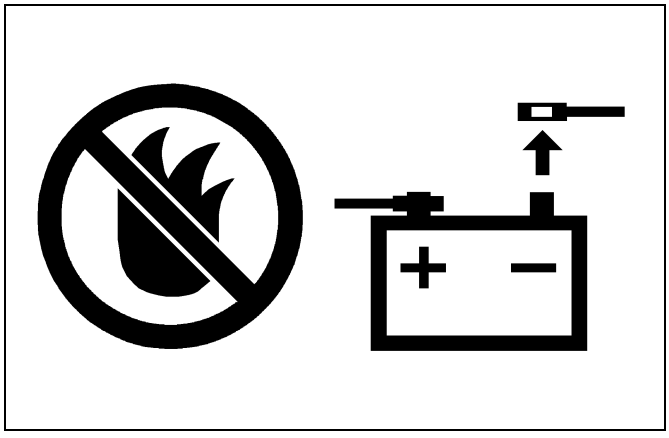
- Do not start the engine by shorting across starter terminals or bypassing the safety start switch.
- Do not alter or remove any part of machine safety system.
- Before starting the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Never start the engine while standing on ground. Start the engine only from operator's seat.





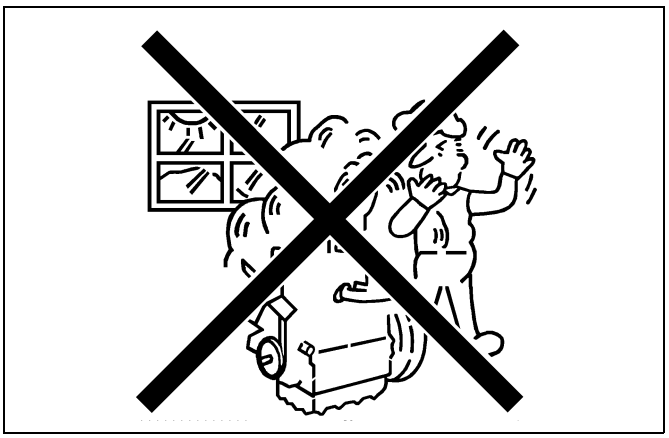
SAFETY WORKING

- Do not work on the machine while under the influence of alcohol, medication, or other substances or while fatigued.
- Wear close fitting clothing and safety equipment appropriate to the job.
- Use tools appropriate to the work. Makeshift tools, parts, and procedures are not recommended.
- When servicing is performed together by two or more persons, take care to perform all work safely.
- Do not work under the machine that is supported solely by a jack. Always support the machine by safety stands.
- Do not touch the rotating or hot parts while the engine is running.
- Never remove the radiator cap while the engine is running, or immediately after stopping. Otherwise, hot water will spout out from radiator. Only remove radiator cap when cool enough to touch with bare hands. Slowly loosen the cap to first stop to relieve pressure before removing completely.
- Escaping fluid (fuel or hydraulic oil) under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or fuel lines. Tighten all connections before applying pressure.



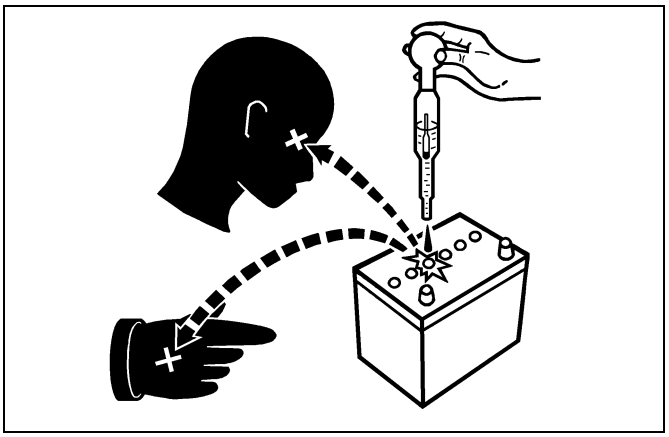
AVOID FIRES

- Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.
- To avoid sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- Battery gas can explode. Keep sparks and open flame away from the top of battery, especially when charging the battery.
- Make sure that no fuel has been spilled on the engine.



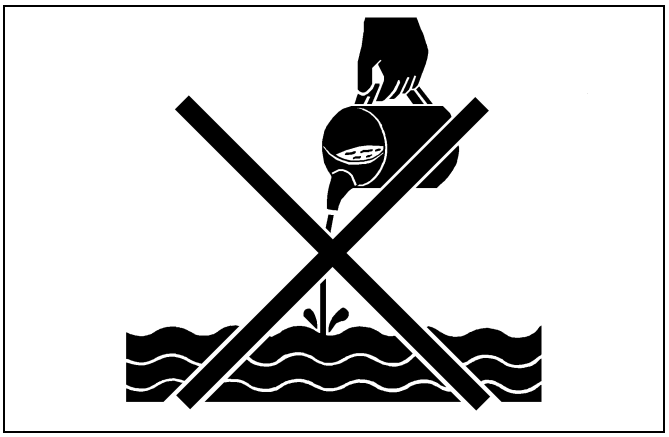
VENTILATE WORK AREA

- If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.



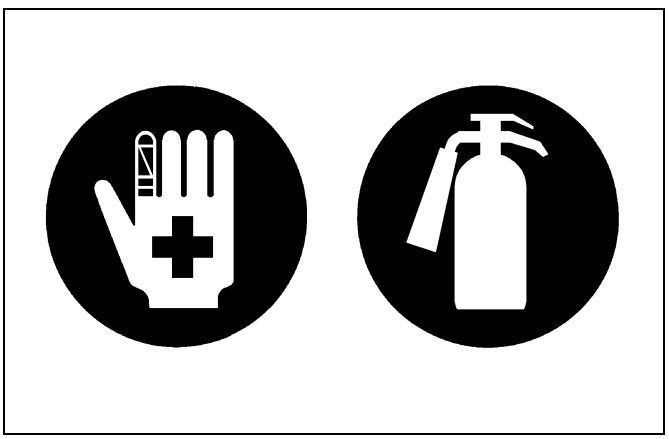
PREVENT ACID BURNS

- Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, clothing and cause blindness if splashed into eyes. Keep electrolyte away from eyes, hands and clothing. If you spill electrolyte on yourself, flush with water, and get medical attention immediately.



DISPOSE OF FLUIDS PROPERLY

- Do not pour fluids into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil, fuel, coolant, electrolyte and other harmful waste.



PREPARE FOR EMERGENCIES

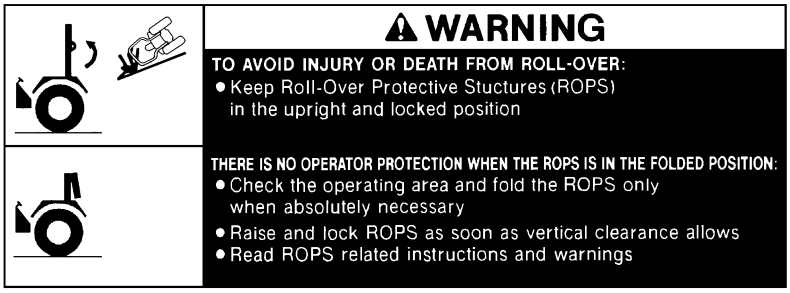
- Keep a first aid kit and fire extinguisher handy at all times.
- Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.

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.

(1) Part No. TA040-4965-2

(2) Part No. TD054-9848-1 [Rear mount type ROPS]



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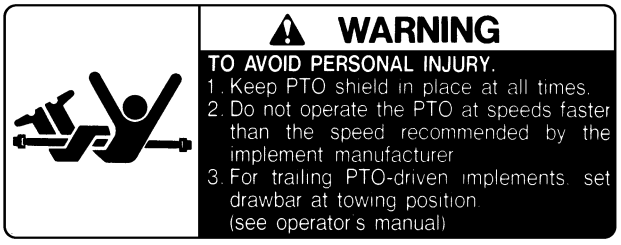
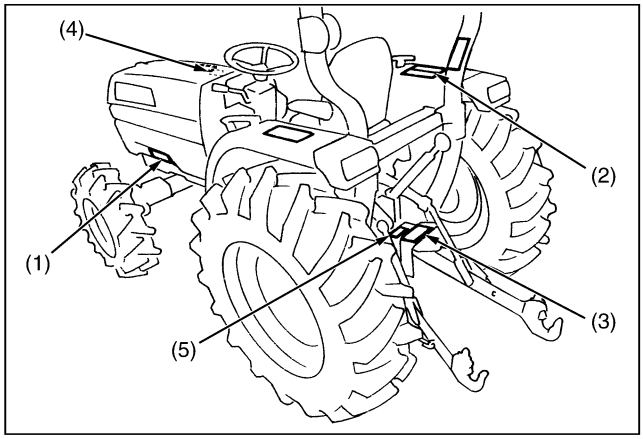
(3) Part No. TA040-4959-3





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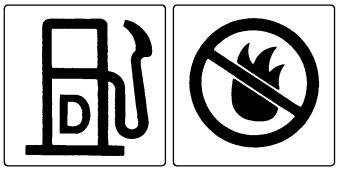
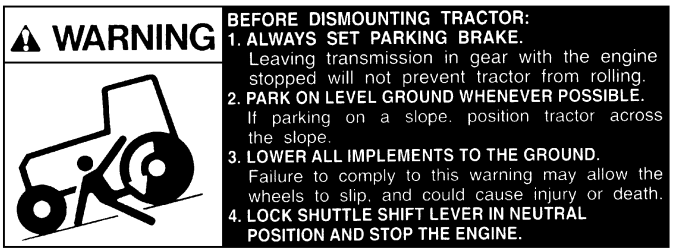
(4) Part No. TA040-4956-2
Diesel fuel only. No fire

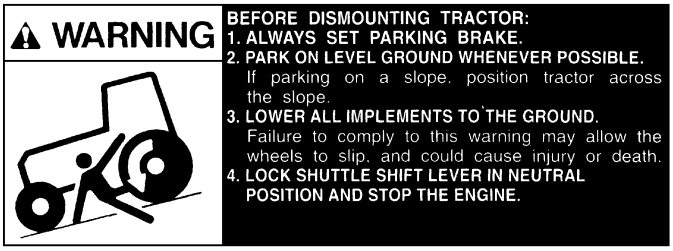


(5) Part No. TA040-4935-1

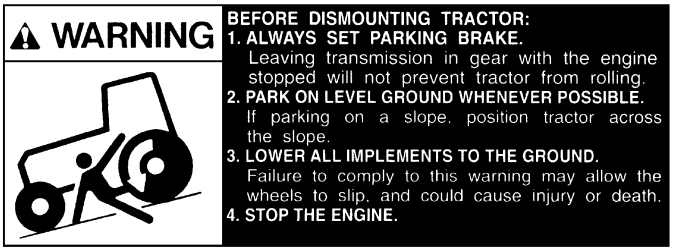
(1) Part No. TA140-4992-1 [GST Type]



(1) Part No. TA140-4933-1 [Manual Transmission Type]

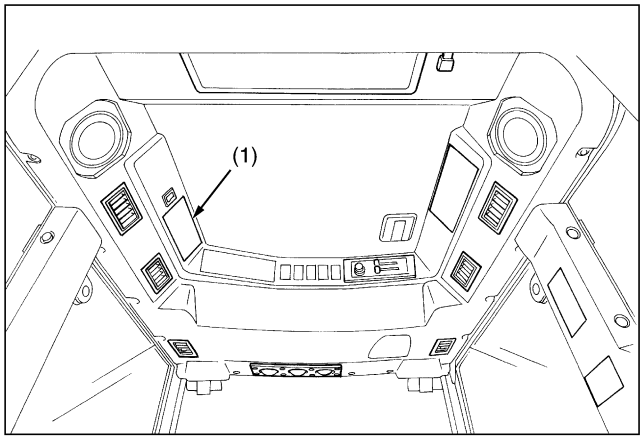


(1) Part No. TA240-4933-2 [HST Type]

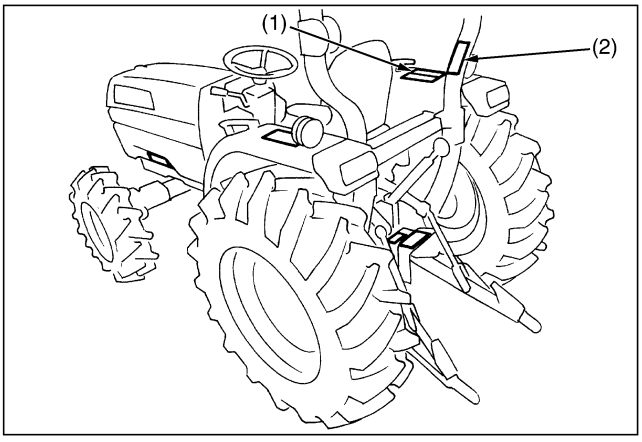


(2) Part No. 6C140-4746-1

[CABIN Type]



[ROPS Type]



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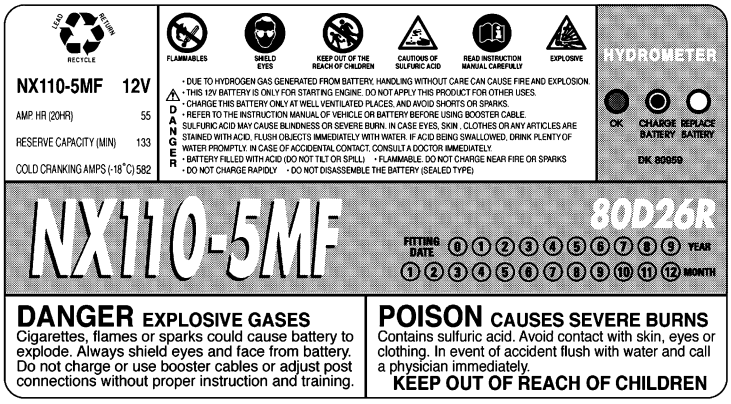
(1) Part No. 35260-3491-4

⚠CAUTION

TO AVOID PERSONAL INJURY:

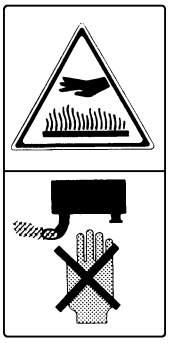
1. Read and understand the operator's manual before operation.
2. Before starting the engine, make sure that everyone is at a safe distance from the tractor and that the PTO is OFF.
3. Do not allow passengers on the tractor at any time.
4. Before allowing other people to use the tractor, have them read the operator's manual.
5. Check the tightness of all nuts and bolts regularly.
6. Keep all shields in place and stay away from all moving parts.
7. Lock the two brake pedals together before driving on the road.
8. Slow down for turns, or rough roads, or when applying individual brakes.
9. On public roads use SMV emblem and hazard lights, if required by local traffic and safety regulations.
10. Pull only from the drawbar.
11. Before dismounting, lower the implement to the ground, set the parking brake, stop the engine and remove the key.
12. Securely support tractor and implements before working underneath.

(2) Part No. TD060-3012-1

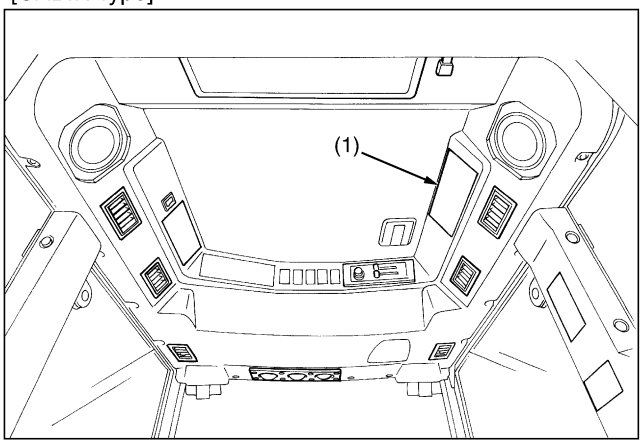


(3) Part No.
32751-4958-1
Stay clear of engine fan and fan belt.

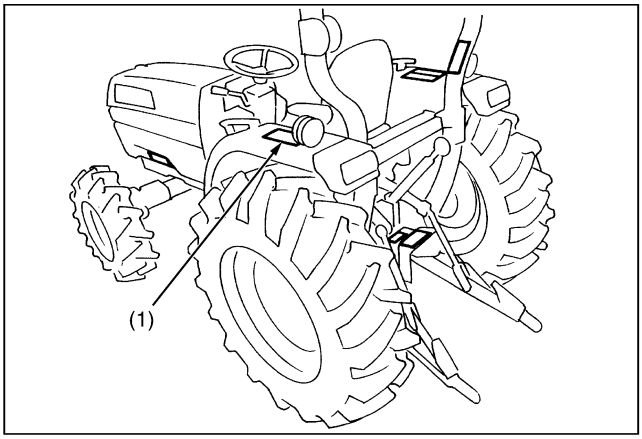
(4) Part No.
TC030-4958-1
Do not touch hot surface like muffler etc.

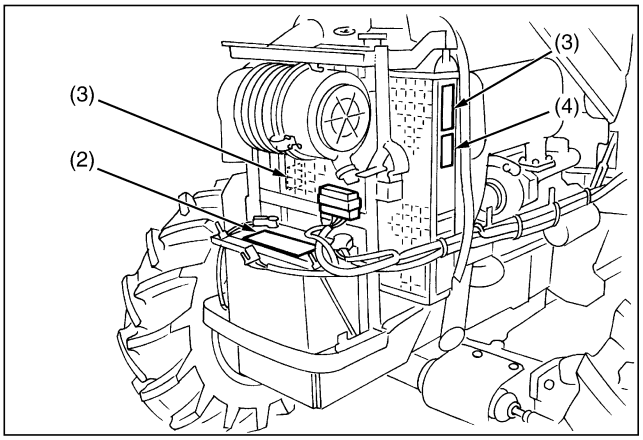


[CABIN Type]



[ROPS Type]





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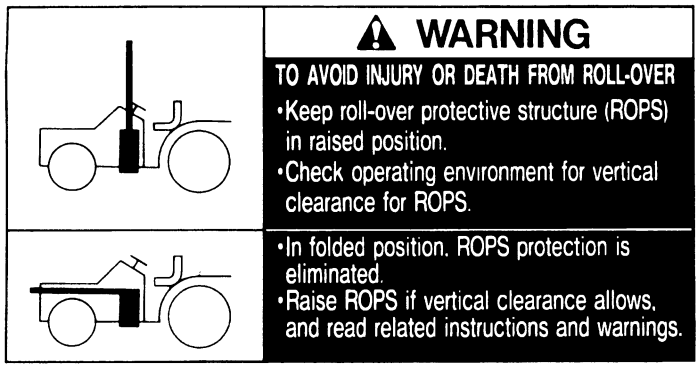
(1) Part No. TA046-4932-1 [Mid mount type ROPS]



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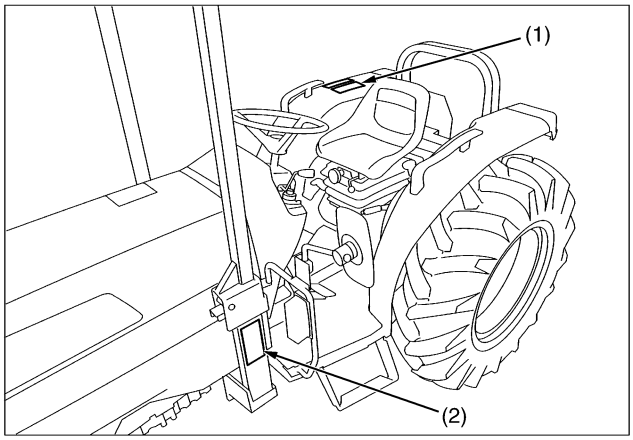
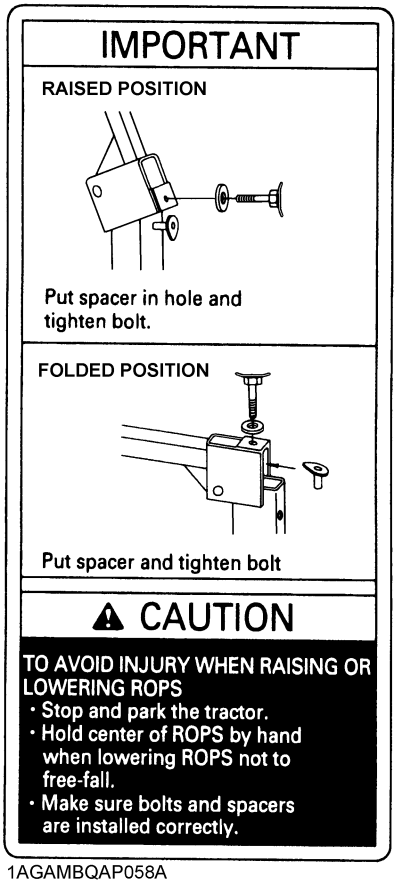


(2) Part No. TA046-4928-2
[Mid mount type ROPS]



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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 or 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.

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SPECIFICATIONS

ROPS Type

Model			L3130	L3430
			Manual Transmission	
Engine	Model		D1503-MA-E-GST-EU	D1703-MA-E-GST-EU
	Type		Indirect injection vertical, water-cooled, 4-cycle diesel	
	Number of cylinders		3	
	Total displacement		1.499 L (91.5 cu.in.)	1.647 L (100.5 cu.in.)
	Bore and stroke		83 × 92.4 mm (3.3 × 3.6 in.)	87 × 92.4 mm (3.4 × 3.6 in.)
	Net power		23.1 kW (31.0 HP)*	25.1 kW (33.6 HP)*
	PTO power (factory observe)		19.0 kW (25.8 HP)* / 2700 min^{-1} (rpm)	21.3 kW (29.0 HP)* / 2700 min^{-1} (rpm)
	Maximum torque		102.9 N·m (10.5 kgf·m, 75.9 ft-lbs)	108.3 N·m (11.05 kgf·m, 79.9 ft-lbs)
	Battery capacity		12 V, RC : 123 min, CCA : 490 A	
	Fuel		Diesel fuel No. 1 [below –10 °C (14 °F], Diesel fuel No. 2-D [above –10 °C (14 °F)]	
Capacities	Fuel tank		40 L (10.6 U.S.gals, 8.8 Imp.gals)	
	Engine crankcase (with filter)		5.7 L (6.0 U.S.qts, 5.0 Imp.qts)	
	Engine coolant		6.0 L (6.3 U.S.qts, 5.3 Imp.qts)	
	Transmission case		42 L (11.1 U.S.gals, 9.2 Imp.gals)	
Dimensions	Overall length (without 3P)		3025 mm (119.1 in.)	3015 mm (118.7 in.)
	Overall width (min. tread)		1430 mm (56.3 in.)	
	Overall height (with ROPS)		2255 mm (88.8 in.)	2415 mm (95.1 in.)
	Wheel base		1805 mm (71.1 in.)	
	Min. ground clearance		370 mm (14.6 in.)	
	Tread	Front	1150 mm (45.3 in.)	
		Rear	1110 mm (43.7 in.), 1205 mm (47.4 in.), 1300 mm (51.2 in.), 1385 mm (54.5 in.)	
Weight (with ROPS)			1480 kg (3265 lbs)	1460 kg (3220 lbs)
Travelling system	Standard tire size	Front	7-16	
		Rear	12.4-24	
	Clutch		Dry type single stage	
	Steering		Hydrostatic power steering	
	Transmission		F8, R8 fully synchronized main and shuttle transmission (with creep speed model : F16, R16 fully synchronized main and shuttle transmission)	
	Braking system		Wet disk type	
	Min. turning radius (with brake)		2.7 m (8.9 feet)	
Hydraulic system	Hydraulic control system		Position control	
	Pump capacity		31.5 L (8.3 U.S.gals, 6.9 Imp.gals) / min.	
	Three point hitch		SAE Category 1	
	Max. lift force	At lift points	1700 kg (3750 lbs)	
		24 in. behind lift points	1200 kg (2650 lbs)	
	System pressure		17.7 MPa (180 kgf/cm^2, 2560 psi)	
PTO	Rear PTO		SAE 1-3/8, 6 splines	
	PTO / Engine speed		540 min^{-1} (rpm) / 2550 min^{-1} (rpm), 750 min^{-1} (rpm) / 2250 min^{-1} (rpm)	

Note : * Manufacture's estimate

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

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ROPS Type

Model			L3830	L4630
			Manual Transmission	
Engine	Model		D1803-MA-E-GST-EU	V2203-MA-E-GST-EU
	Type		Indirect injection vertical, water-cooled, 4-cycle diesel	
	Number of cylinders		3	4
	Total displacement		1.826 L (111.4 cu.in.)	2.197 L (134.1 cu.in.)
	Bore and stroke		87 × 102.4 mm (3.4 × 4.0 in.)	87 × 92.4 mm (3.4 × 3.6 in.)
	Net power		27.9 kW (37.4 HP)*	33.3 kW (44.7 HP)*
	PTO power (factory observe)		23.9 kW (32.5 HP)* / 2700 min^{-1} (rpm)	29.5 kW (40.1 HP)* / 2700 min^{-1} (rpm)
	Maximum torque		120.7 N·m (12.3 kgf·m, 89.0 ft-lbs)	146.2 N·m (14.9 kgf·m, 107.8 ft-lbs)
	Battery capacity		12 V, RC : 133 min, CCA : 582 A	
	Fuel		Diesel fuel No. 1 [below –10 °C (14 °F], Diesel fuel No. 2-D [above –10 °C (14 °F)]	
Capacities	Fuel tank		40 L (10.6 U.S.gals, 8.8 Imp.gals)	
	Engine crankcase (with filter)		6.7 L (7.1 U.S.qts, 5.9 Imp.qts)	8.2 L (8.7 U.S.qts, 7.2 Imp.qts)
	Engine coolant		7.5 L (7.9 U.S.qts, 6.6 Imp.qts)	
	Transmission case		43 L (11.4 U.S.gals, 9.5 Imp.gals)	
Dimensions	Overall length (without 3P)		3075 mm (121.1 in.)	3170 mm (124.8 in.)
	Overall width (min. tread)		1485 mm (58.5 in.)	
	Overall height (with ROPS)		2420 mm (95.3 in.)	
	Wheel base		1840 mm (72.4 in.)	1895 mm (74.6 in.)
	Min. ground clearance		400 mm (15.7 in.)	
	Tread	Front	1145 mm (45.1 in.)	
		Rear	1140 mm (44.9 in.), 1210 mm (47.6 in.), 1310 mm (51.6 in.), 1410 mm (55.5 in.)	
Weight (with ROPS)			1500 kg (3305 lbs)	1520 kg (3351 lbs)
Travelling system	Standard tire size	Front	8-16	
		Rear	13.6-24	
	Clutch		Dry type single stage	
	Steering		Hydrostatic power steering	
	Transmission		F8, R8 fully synchronized main and shuttle transmission (with creep speed model : F16, R16 fully synchronized main and shuttle transmission)	
	Braking system		Wet disk type	
	Min. turning radius (with brake)		2.7 m (8.9 feet)	
Hydraulic system	Hydraulic control system		Position control	
	Pump capacity		31.5 L (8.3 U.S.gals, 6.9 Imp.gals) / min.	37.0 L (9.8 U.S.gals, 8.1 Imp.gals) / min.
	Three point hitch		SAE Category 1	
	Max. lift force	At lift points	1750 kg (3860 lbs)	
		24 in. behind lift points	1250 kg (2760 lbs)	
	System pressure		17.7 MPa (180 kgf/cm^2, 2560 psi)	
PTO	Rear PTO		SAE 1-3/8, 6 splines	
	PTO / Engine speed		540 min^{-1} (rpm) / 2550 min^{-1} (rpm), 750 min^{-1} (rpm) / 2250 min^{-1} (rpm)	

Note : * Manufacture's estimate

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

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CABIN Type

Model			L3830	L4630	
			Manual Transmission		GST
Engine	Model		D1803-MA-E-GST-EU	V2203-MA-E-GST-EU	
	Type		Indirect injection vertical, water-cooled, 4-cycle diesel		
	Number of cylinders		3	4	
	Total displacement		1.826 L (111.4 cu.in.)	2.197 L (134.1 cu.in.)	
	Bore and stroke		87 × 102.4 mm (3.4 × 4.0 in.)	87 × 92.4 mm (3.4 × 3.6 in.)	
	Net power		27.9 kW (37.9 HP)*	33.3 kW (45.3 HP)*	
	PTO power (factory observe)		23.9 kW (32.5 HP)* / 2700 min^{-1} (rpm)	29.5 kW (40.1 HP)* / 2700 min^{-1} (rpm)	
	Maximum torque		120.7 N·m (12.3 kgf·m, 89.0 ft-lbs)	146.2 N·m (14.9 kgf·m, 107.8 ft-lbs)	
	Battery capacity		12 V, RC : 133 min, CCA : 582 A		
	Fuel		Diesel fuel No. 1 [below –10 °C (14 °F], Diesel fuel No. 2 [above –10 °C (14 °F)]		
Capacities	Fuel tank		40 L (10.6 U.S.gals, 8.8 Imp.gals)		
	Engine crankcase (with filter)		6.7 L (7.1 U.S.qts, 5.9 Imp.qts)	8.2 L (8.7 U.S.qts, 7.2 Imp.qts)	
	Engine coolant		8.7 L (9.2 U.S.qts, 7.7 Imp.qts)		
	Transmission case		43 L (11.4 U.S.gals, 9.5 Imp.gals)		
Dimensions	Overall length (without 3P)		3075 mm (121.1 in.)	3170 mm (124.8 in.)	
	Overall width (min. tread)		1485 mm (58.5 in.)		
	Overall height		2195 mm (86.4 in.)		
	Wheel base		1840 mm (72.4 in.)	1895 mm (74.6 in.)	
	Min. ground clearance		400 mm (15.7 in.)		
	Tread	Front	1145 mm (45.1 in.)		
		Rear	1140 mm (44.9 in.), 1210 mm (47.6 in.), 1310 mm (51.6 in.), 1410 mm (55.5 in.)		
Weight			1640 kg (3616 lbs)	1690 kg (3726 lbs)	
Travelling system	Standard tire size	Front	8-16		
		Rear	13.6-24		
	Clutch		Dry type single stage		
	Steering		Hydrostatic power steering		
	Transmission		16 forward and 16 reverse speeds		24 forward and 16 reverse speeds
	Braking system		Wet disk type		
	Min. turning radius (with brake)		2.7 m (8.9 feet)		
Hydraulic system	Hydraulic control system		Position control		
	Pump capacity		31.5 L (8.3 U.S.gals, 6.9 Imp.gals) / min.	37.0 L (9.8 U.S.gals, 8.1 Imp.gals) / min.	
	Three point hitch		SAE Category 1		
	Max. lift force	At lift points	1750 kg (3860 lbs)		
		24 in. behind lift points	1250 kg (2760 lbs)		
	System pressure		17.7 MPa (180 kgf/cm^2, 2560 psi)		
PTO	Rear PTO		SAE 1-3/8, 6 splines		
	PTO / Engine speed		540 min^{-1} (rpm) / 2550 min^{-1} (rpm), 750 min^{-1} (rpm) / 2250 min^{-1} (rpm)	540 min^{-1} (rpm) / 2550 min^{-1} (rpm)	

Note : * Manufacture's estimate

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

W10390020

CABIN Type

Model			L5030		
			Manual Transmission	GST	HST
Engine	Model		V2403-MA-E-GST-EU		
	Type		Indirect injection vertical, water-cooled, 4-cycle diesel		
	Number of cylinders		4		
	Total displacement		2.434 L (148.5 cu.in.)		
	Bore and stroke		87 × 102.4 mm (3.4 × 4.0 in.)		
	Net power		37.3 kW (50.7 HP)*		
	PTO power (factory observe)		32.8 kW (44.6 HP)* / 2700 min^{-1} (rpm)		31.7 kW (43.1 HP)* / 2700 min^{-1} (rpm)
	Maximum torque		162.4 N·m (16.6 kgf·m, 119.8 ft-lbs)		
	Battery capacity		12 V, RC : 133 min, CCA : 582 A		
	Fuel		Diesel fuel No. 1 [below –10 °C (14 °F], Diesel fuel No. 2 [above –10 °C (14 °F)]		
Capacities	Fuel tank		43 L (11.4 U.S.gals, 9.5 Imp.gals)		
	Engine crankcase (with filter)		8.2 L (8.7 U.S.qts, 7.2 Imp.qts)		
	Engine coolant		9.2 L (9.7 U.S.qts, 8.1 Imp.qts)		
	Transmission case		45 L (11.9 U.S.gals, 9.9 Imp.gals)		
Dimensions	Overall length (without 3P)		3245 mm (127.8 in.)		
	Overall width (min. tread)		1470 mm (57.9 in.)		
	Overall height		2275 mm (89.6 in.)		
	Wheel base		1915 mm (75.4 in.)		
	Min. ground clearance		425 mm (16.7 in.)		
	Tread	Front	1135 mm (44.7 in.)		
		Rear	1125 mm (44.3 in.), 1225 mm (48.2 in.), 1325 mm (52.2 in.)		
Weight			1840 kg (4057 lbs)	1860 kg (4101 lbs)	
Travelling system	Standard tire size	Front	9.5-16		
		Rear	13.6-28		
	Clutch		Dry type single stage		
	Steering		Hydrostatic power steering		
	Transmission		16 forward and 16 reverse speeds	24 forward and 16 reverse speeds	3 speeds
	Braking system		Wet disk type		
	Min. turning radius (with brake)		3.2 m (10.5 feet)		
Hydraulic system	Hydraulic control system		Position control		
	Pump capacity		37.0 L (9.8 U.S.gals, 8.1 Imp.gals) / min.		
	Three point hitch		SAE Category 1		
	Max. lift force	At lift points	1750 kg (3860 lbs)		
		24 in. behind lift points	1350 kg (2976 lbs)		
	System pressure		17.7 MPa (180 kgf/cm^2, 2560 psi)		
PTO	Rear PTO		SAE 1-3/8, 6 splines		
	PTO / Engine speed		540 min^{-1} (rpm) / 2550 min^{-1} (rpm)		540 min^{-1} (rpm) / 2660 min^{-1} (rpm)

Note : * Manufacture's estimate
The company reserves the right to change the specifications without notice.

W10399600

TRAVELLING SPEEDS

[Manual Transmission Type]

Model			L3130	L3830 - L4630
Tire size (Rear)			12.4-24	13.6-24
Shuttle shift lever	Range gear shift lever	Main gear shift lever	km/h (mph)	km/h (mph)
Forward (At rated engine rpm)	Low	1	1.81 (1.1)	1.68 (1.0)
		2	2.56 (1.6)	2.38 (1.5)
		3	4.16 (2.6)	3.86 (2.4)
		4	6.14 (3.8)	5.71 (3.5)
	High	1	9.13 (5.7)	8.49 (5.3)
		2	12.91 (8.0)	12.01 (7.5)
		3	20.96 (13.0)	19.49 (12.1)
		4	30.96 (19.2)	28.78 (17.9)
Reverse (At rated engine rpm)	Low	1	1.51 (0.9)	1.40 (0.9)
		2	2.13 (1.3)	1.98 (1.2)
		3	3.46 (2.1)	3.22 (2.0)
		4	5.11 (3.2)	4.76 (3.0)
	High	1	7.61 (4.7)	7.07 (4.4)
		2	10.76 (6.7)	10.01 (6.2)
		3	17.47 (10.9)	16.24 (10.1)
		4	25.80 (16.0)	23.99 (14.9)

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

W1035065

[With Creep Speed Model]

Model			L3130		L3830 - L4630		L5030	
Creep gear shift lever			High	Low	High	Low	High	Low
Tire size (Rear)			12.4-24		13.6-24		13.6-28	
Shuttle shift lever	Range gear shift lever	Main gear shift lever	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)
Forward (At rated engine rpm)	Low	1	1.81 (1.1)	0.20 (0.1)	1.68 (1.0)	0.19 (0.1)	1.77 (1.1)	0.20 (0.1)
		2	2.56 (1.6)	0.29 (0.2)	2.38 (1.5)	0.27 (0.2)	2.51 (1.6)	0.28 (0.2)
		3	4.16 (2.6)	0.47 (0.3)	3.86 (2.4)	0.43 (0.3)	4.07 (2.5)	0.46 (0.3)
		4	6.14 (3.8)	0.69 (0.4)	5.71 (3.5)	0.64 (0.4)	6.02 (3.7)	0.68 (0.4)
	High	1	9.13 (5.7)	1.02 (0.6)	8.49 (5.3)	0.95 (0.6)	8.95 (5.6)	1.00 (0.6)
		2	12.91 (8.0)	1.45 (0.9)	12.01 (7.5)	1.35 (0.8)	12.66 (7.9)	1.42 (0.9)
		3	20.96 (13.0)	2.35 (1.5)	19.49 (12.1)	2.19 (1.4)	20.54 (12.8)	2.31 (1.4)
		4	30.96 (19.2)	3.48 (2.2)	28.78 (17.9)	3.23 (2.0)	30.34 (18.9)	3.41 (2.1)
Reverse (At rated engine rpm)	Low	1	1.51 (0.9)	0.17 (0.1)	1.40 (0.9)	0.16 (0.1)	1.48 (0.9)	0.17 (0.1)
		2	2.13 (1.3)	0.24 (0.1)	1.98 (1.2)	0.22 (0.1)	2.09 (1.3)	0.23 (0.1)
		3	3.46 (2.1)	0.39 (0.2)	3.22 (2.0)	0.36 (0.2)	3.39 (2.1)	0.38 (0.2)
		4	5.11 (3.2)	0.57 (0.4)	4.76 (3.0)	0.53 (0.3)	5.01 (3.1)	0.56 (0.3)
	High	1	7.61 (4.7)	0.85 (0.5)	7.07 (4.4)	0.79 (0.5)	7.45 (4.6)	0.84 (0.5)
		2	10.76 (6.7)	1.21 (0.8)	10.01 (6.2)	1.12 (0.7)	10.55 (6.6)	1.18 (0.7)
		3	17.47 (10.9)	1.96 (1.2)	16.24 (10.1)	1.82 (1.1)	17.12 (10.6)	1.92 (1.2)
		4	25.80 (16.0)	2.90 (1.8)	23.99 (14.9)	2.69 (1.7)	25.28 (15.7)	2.84 (1.8)

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

W1044901

[GST Type (with creep speed model)]

Model		L4630		L5030	
Creep gear shift lever		High	Low	High	Low
Tire size (Rear)		13.6-24		13.6-28	
Shuttle shift lever	Main gear shift lever	km/h (mph)		km/h (mph)	
Forward (At rated engine rpm)	1	1.68 (1.0)	0.19 (0.1)	1.77 (1.1)	0.20 (0.1)
	2	2.38 (1.5)	0.27 (0.2)	2.51 (1.6)	0.28 (0.2)
	3	3.07 (1.9)	0.35 (0.2)	3.24 (2.0)	0.36 (0.2)
	4	3.86 (2.4)	0.43 (0.3)	4.07 (2.5)	0.46 (0.3)
	5	4.54 (2.8)	0.51 (0.3)	4.78 (3.0)	0.54 (0.3)
	6	5.71 (3.5)	0.64 (0.4)	6.02 (3.7)	0.68 (0.4)
	7	6.75 (4.2)	0.76 (0.5)	7.12 (4.4)	0.80 (0.5)
	8	8.49 (5.3)	0.95 (0.6)	8.95 (5.6)	1.00 (0.6)
	9	9.55 (5.9)	1.07 (0.7)	10.07 (6.3)	1.13 (0.7)
	10	12.01 (7.5)	1.35 (0.8)	12.66 (7.9)	1.42 (0.9)
	11	19.49 (12.1)	2.19 (1.4)	20.54 (12.8)	2.31 (1.4)
	12	28.78 (17.9)	3.23 (2.0)	30.34 (18.9)	3.41 (2.1)
Reverse (At rated engine rpm)	1	1.40 (0.9)	0.16 (0.1)	1.48 (0.9)	0.17 (0.1)
	2	1.98 (1.2)	0.22 (0.1)	2.09 (1.3)	0.23 (0.1)
	3	3.22 (2.0)	0.36 (0.2)	3.39 (2.1)	0.38 (0.2)
	4	4.76 (3.0)	0.53 (0.3)	5.01 (3.1)	0.56 (0.3)
	5	7.07 (4.4)	0.79 (0.5)	7.45 (4.6)	0.84 (0.5)
	6	10.01 (6.2)	1.12 (0.7)	10.55 (6.6)	1.18 (0.7)
	7	16.24 (10.1)	1.82 (1.1)	17.12(10.6)	1.92 (1.2)
	8	23.99 (14.9)	2.69 (1.7)	25.28 (15.7)	2.84 (1.8)

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

W1032246

[HST Type]

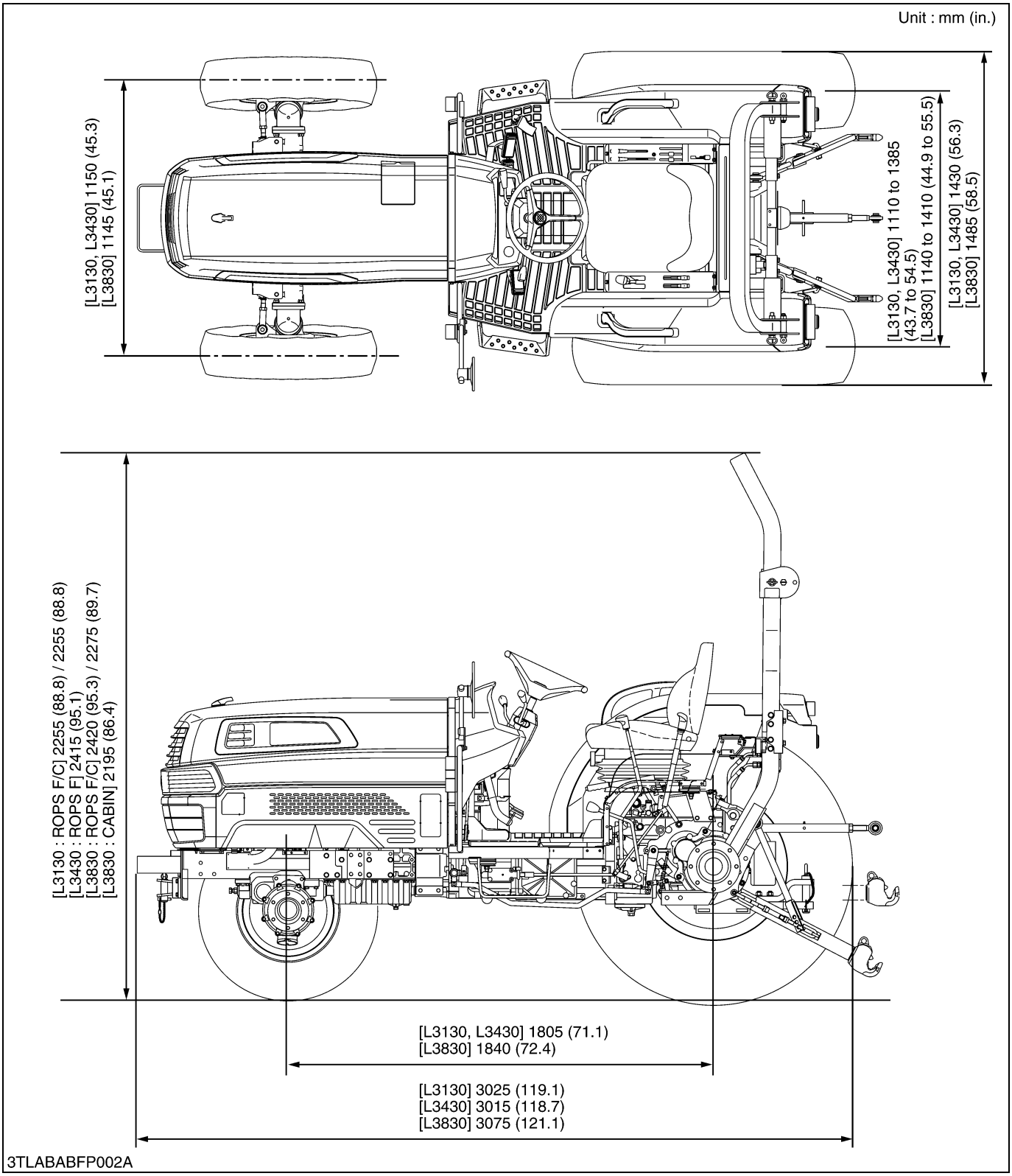
Model		L5030
Tire size (Rear)		14.9-26
Shuttle shift lever	Range gear shift lever	km/h (mph)
Forward (At rated engine rpm)	L	0 to 6.10 (0 to 3.8)
	M	0 to 11.80 (0 to 7.3)
	H	0 to 28.60 (0 to 17.8)
Reverse (At rated engine rpm)	L	0 to 5.50 (0 to 3.4)
	M	0 to 10.60 (0 to 6.6)
	H	0 to 25.70 (0 to 16.0)

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

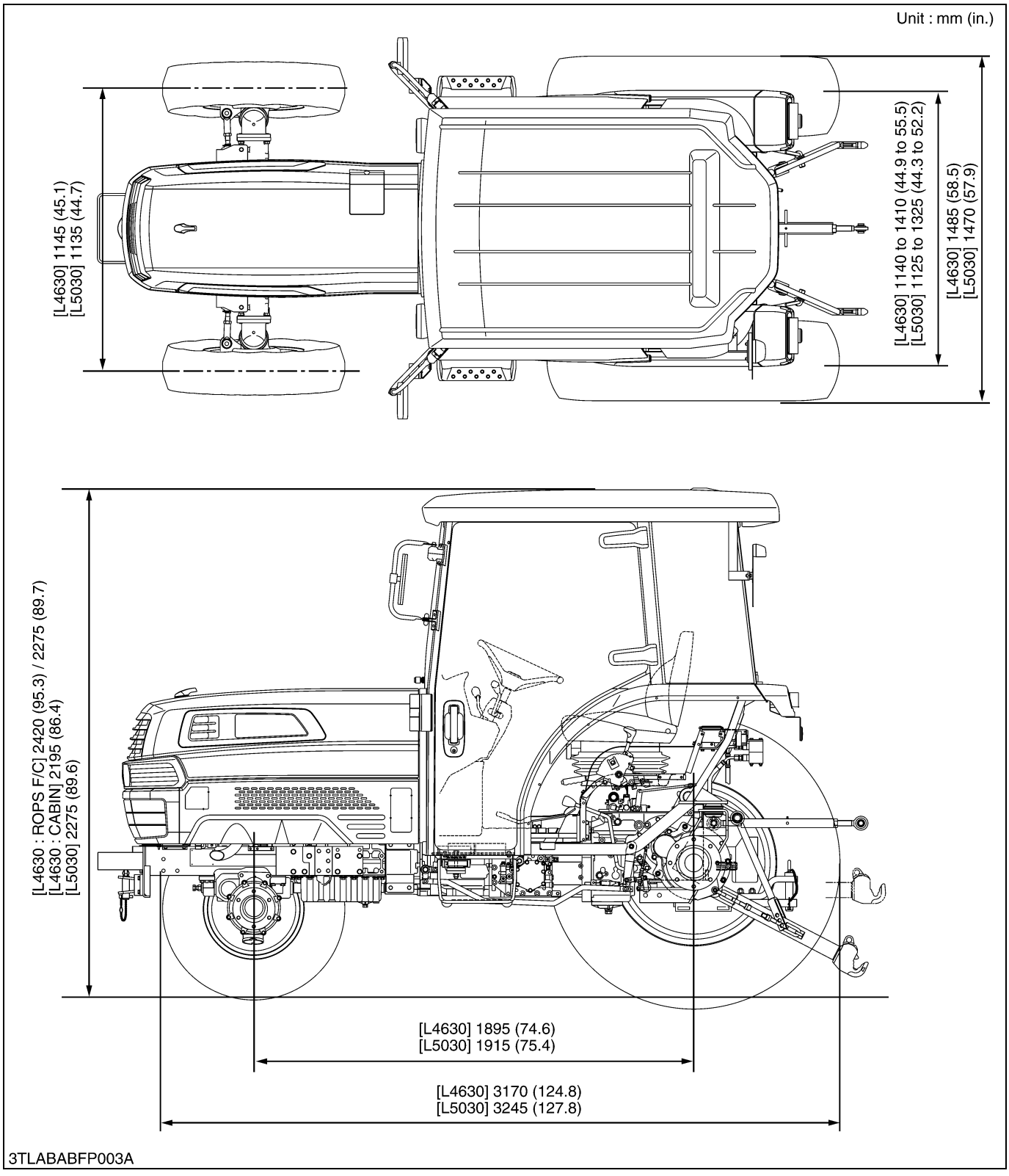
W1034865

DIMENSIONS

[L3130, L3430, L3830]



[L4630, L5030]

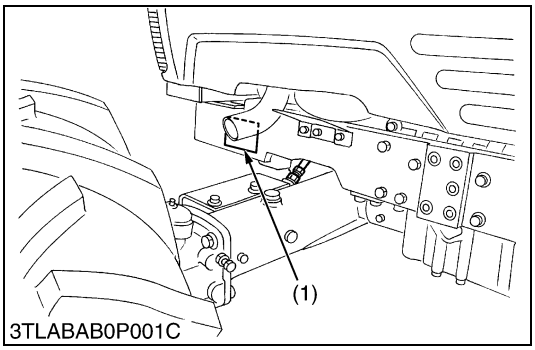

Unit : mm (in.)
[L4630] 1145 (45.1)
[L5030] 1135 (44.7)
[L4630] 1140 to 1410 (44.9 to 55.5)
[L5030] 1125 to 1325 (44.3 to 52.2)
[L4630] 1485 (58.5)
[L5030] 1470 (57.9)
[L4630 : ROPS F/C] 2420 (95.3) / 2275 (89.7)
[L4630 : CABIN] 2195 (86.4)
[L5030] 2275 (89.6)
[L4630] 1895 (74.6)
[L5030] 1915 (75.4)
[L4630] 3170 (124.8)
[L5030] 3245 (127.8)
3TLABABFP003A

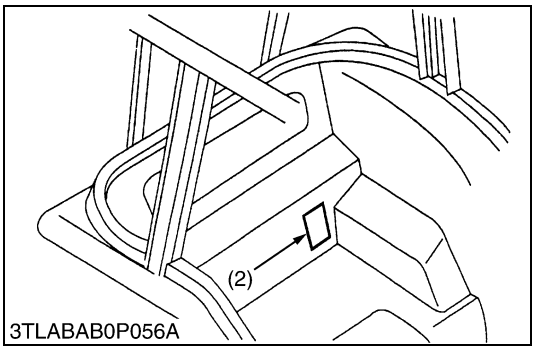
G GENERAL

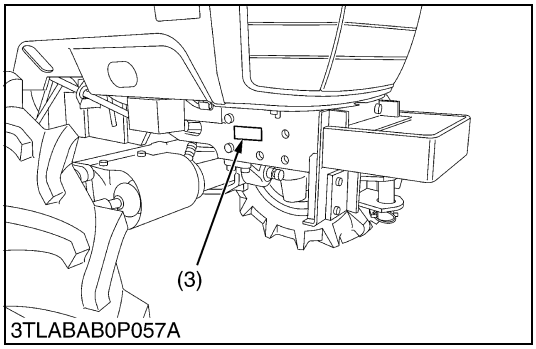
GENERAL

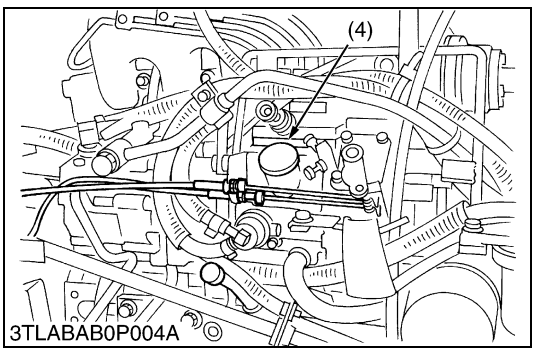
CONTENTS

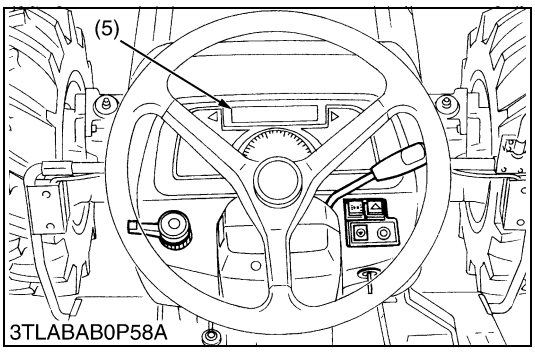
1. TRACTOR IDENTIFICATION



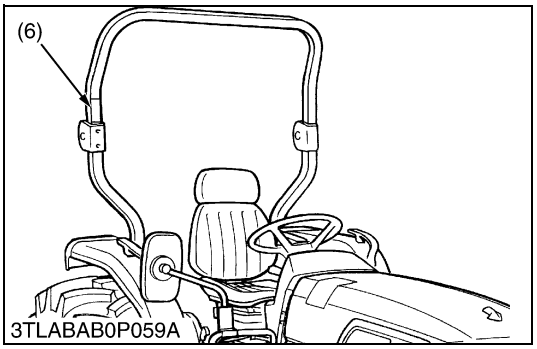








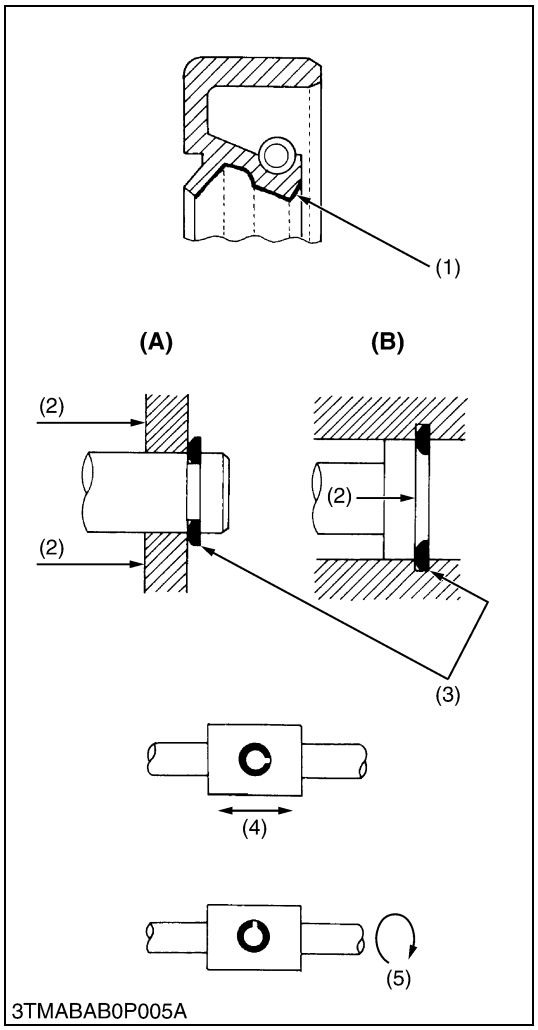
When contacting your local KUBOTA distributor, always specify engine serial number, tractor serial number and hour meter reading.



(1) Tractor Identification Plate
(2) CABIN Identification Plate (CABIN Serial Number)
(3) Tractor Serial Number
(4) Engine Serial Number
(5) Hour Meter (IntelliPanel Display)
(6) ROPS Identification Plate (ROPS Serial Number)

W10106000

2. GENERAL PRECAUTIONS



3TMABAB0P005A

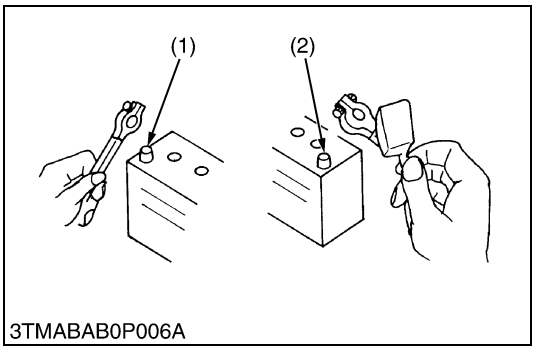
- During disassembly, carefully arrange removed parts in a clean area to prevent confusion later. Screws, bolts and nuts should be installed in their original position to prevent reassembly errors.
- When special tools are required, use KUBOTA genuine special tools. Special tools which are not frequently used should be made according to the drawings provided.
- Before disassembling or servicing electrical wires, always disconnect the ground cable from the battery first.
- Remove oil and dirt from parts before measuring.
- Use only KUBOTA genuine parts for parts replacement to maintain machine performance and to assure safety.
- Gaskets and O-rings must be replaced during reassembly. Apply grease to new O-rings or oil seals before assembling. See the figure left side.
- When reassembling external snap rings or internal snap rings, they must be positioned so that sharp edge faces against the direction from which a force is applied. See the figure left side.
- 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.

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

(A) External Snap Ring
(B) Internal Snap Ring

W10109040

3. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING



3TMABAB0P006A

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

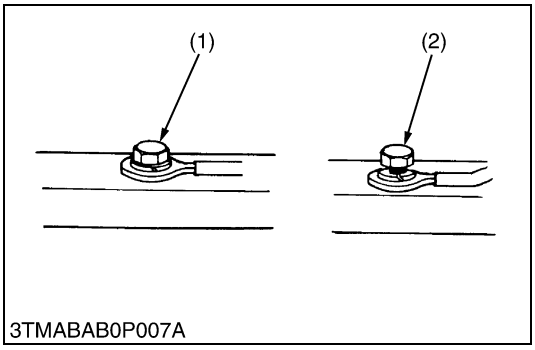
■ **IMPORTANT**

- **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 attempt 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

W10111140

[1] WIRING

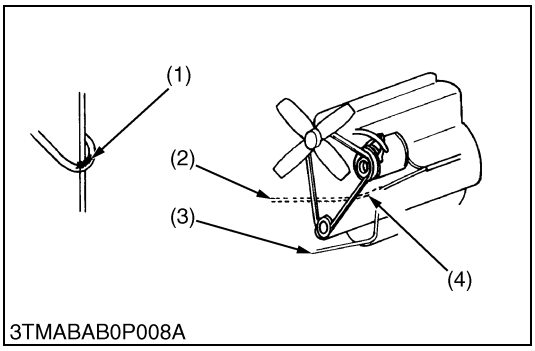


3TMABAB0P007A

- Securely tighten wiring terminals.

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

W10112160

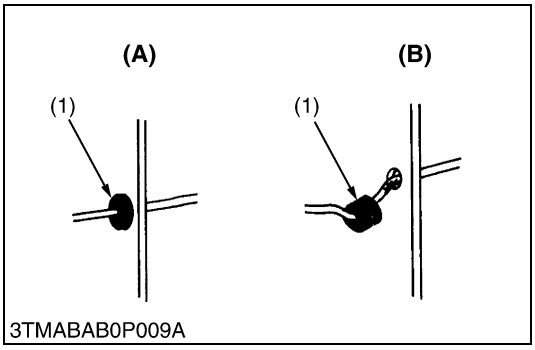


3TMABAB0P008A

- Do not let wiring contact dangerous part.

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

W10113130

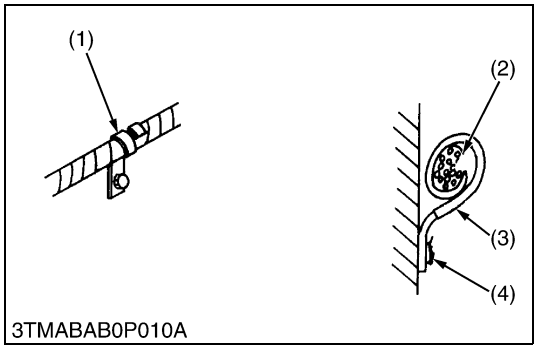


3TMABAB0P009A

- Securely insert grommet.

(1) Grommet **(A) Correct** **(B) Incorrect**

W10113880

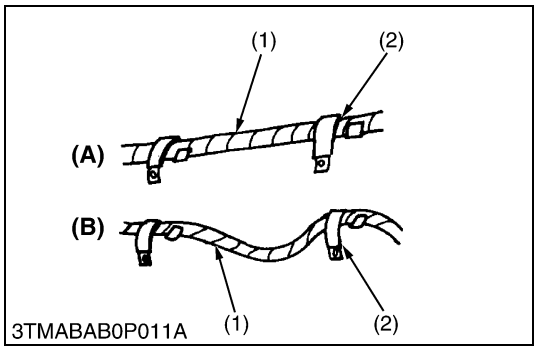


3TMABAB0P010A

- Securely clamp, being careful not to damage wiring.

(1) Clamp
• Wind Clamp Spirally
(2) Wire Harness
(3) Clamp
(4) Welding Dent

W10114580

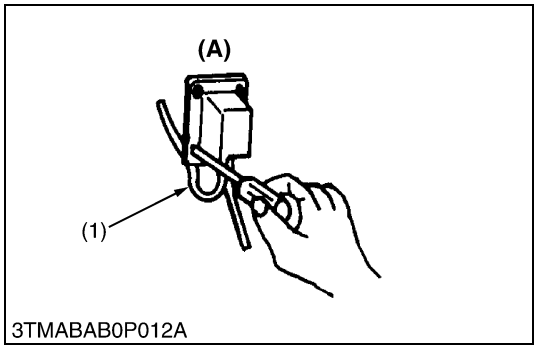


3TMABAB0P011A

- 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

W10115870

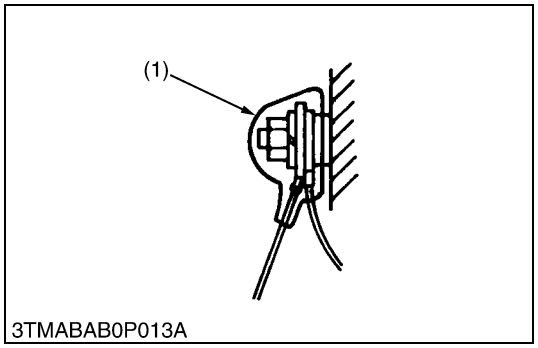


3TMABAB0P012A

- In installing a part, take care not to get wiring caught by it.

(1) Wiring
(A) Incorrect

W10116700



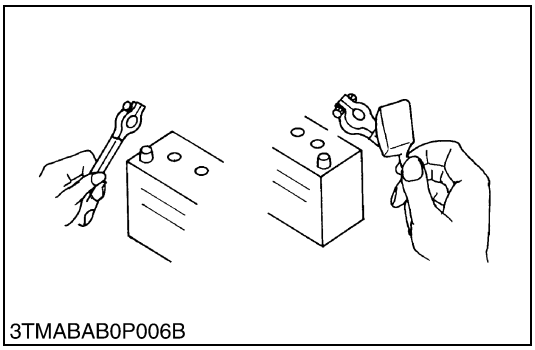
3TMABAB0P013A

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

(1) Cover
• Securely Install Cover

W10117350

[2] BATTERY


3TMABAB0P006B

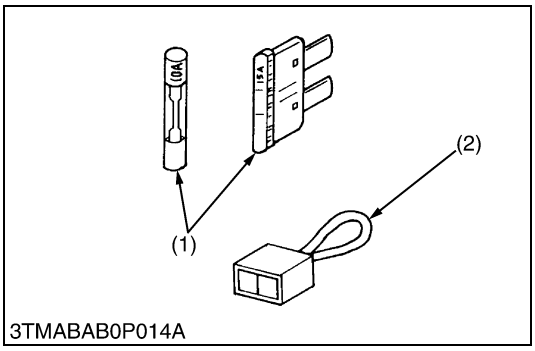
- Take care not to confuse positive and negative terminal posts.
- When removing battery cables, disconnect negative cable first. When installing battery cables, check for polarity and connect positive cable first.
- Do not install any battery with capacity other than is specified (Ah).
- After connecting 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.

CAUTION

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

W10118160

[3] FUSE



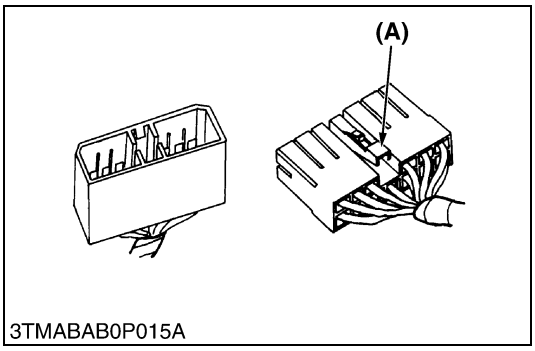
3TMABAB0P014A

- Use fuses with specified capacity.
  Neither too large or small capacity fuse is acceptable.
- Never use steel or 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) Slow Blow Fuse

W10120920

[4] CONNECTOR

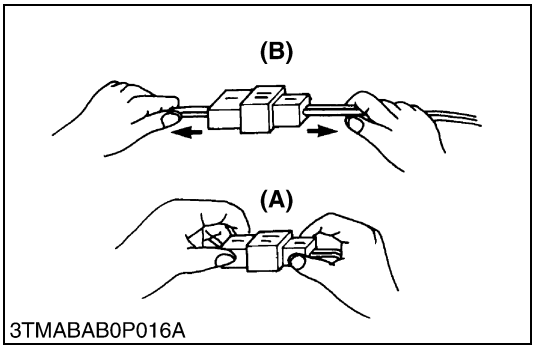


3TMABAB0P015A

- For connector with lock, push lock to separate.

(A) Push

W10122110

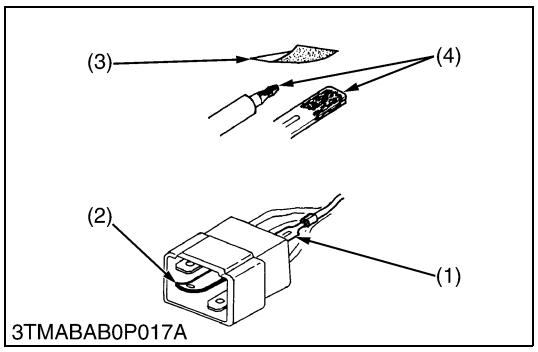


3TMABAB0P016A

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

(A) Correct **(B) Incorrect**

W10122720

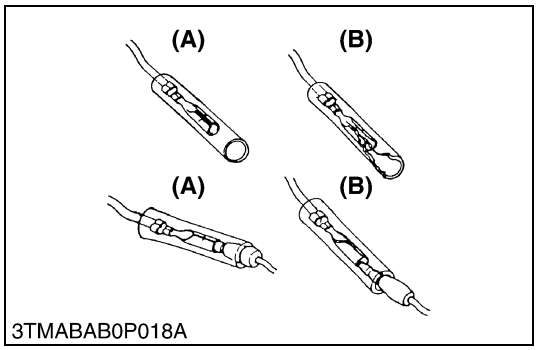


3TMABAB0P017A

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

(1) Exposed Terminal
(2) Deformed Terminal
(3) Sandpaper
(4) Rust

W10123460

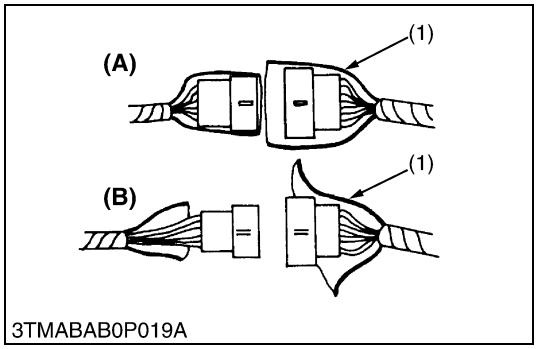


3TMABAB0P018A

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

(A) Correct
(B) Incorrect

W10124300



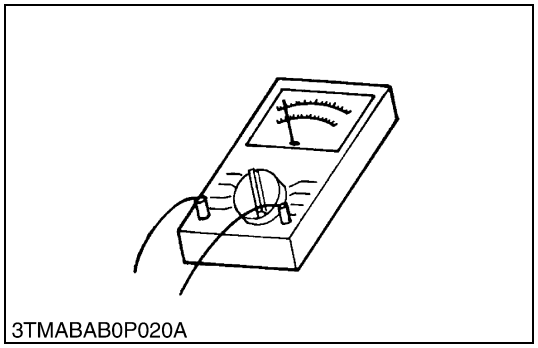
3TMABAB0P019A

- Make certain plastic cover is large enough to cover whole connector.

(1) Cover
(A) Correct
(B) Incorrect

W10125190

[5] HANDLING OF CIRCUIT TESTER


3TMABAB0P020A

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

W10126840

4. LUBRICANTS, FUEL AND COOLANT

	Place	Capacity			Lubricants, fuel and coolant
		L3130	L3430	L3830	
1	Fuel tank	40 L 10.6 U.S.gals 8.8 Imp.gals			No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below –10 °C (14 °F)
2	Cooling system (ROPS Type)	6.0 L 6.3 U.S.qts 5.3 Imp.qts		7.5 L 7.9 U.S.qts 6.6 Imp.qts	Fresh clean water with anti-freeze
	Cooling system (CABIN Type)	–		8.7 L 9.2 U.S.qts 7.7 Imp.qts	
3	Engine crankcase (with filter)	5.7 L 6.0 U.S.qts 5.0 Imp.qts		6.7 L 7.1 U.S.qts 5.9 Imp.qts	Engine oil : API service classification CD, CE or CF Above 25 °C : SAE30, (77 °F) 10W-30 or 10W-40 0 to 25 °C : SAE20, (32 to 77 °F) 10W-30 or 10W-40 Below 0 °C : SAE10W, (32 °F) 10W-30 or 10W-40
4	Transmission case	42 L 11.1 U.S.gals 9.2 Imp.gals		43 L 11.4 U.S.gals 9.5 Imp.gals	KUBOTA UDT or SUPER UDT fluid*
5	Front axle case	6.5 L 6.9 U.S.qts 5.7 Imp.qts			KUBOTA UDT or SUPER UDT fluid* or SAE80, 90 gear oil

Greasing

	Place	No. of greasing point	Capacity	Type of grease
6	Front axle support	2	Until grease overflows	Multipurpose type grease
	Top link	2		
	Top link bracket (if equipped)	2 (with draft control)		
	Lift rod	1		
	Lift cylinder	4		
	Battery terminal	2	Moderate amount	
	Throttle cable	Oiling		Engine oil

* KUBOTA original transmission hydraulic fluid.

	Place	Capacity		Lubricants, fuel and coolant
		L4630	**L5030**	
1	Fuel tank	40 L 10.6 U.S.gals 8.8 Imp.gals	43 L 11.4 U.S.gals 9.5 Imp.gals	No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below –10 °C (14 °F)
2	Cooling system (ROPS Type)	7.5 L 7.9 U.S.qts 6.6 Imp.qts	8.0 L 8.5 U.S.qts 7.0 Imp.qts	Fresh clean water with anti-freeze
	Cooling system (CABIN Type)	8.7 L 9.2 U.S.qts 7.7 Imp.qts	9.2 L 9.7 U.S.qts 8.1 Imp.qts	
3	Engine crankcase (with filter)	8.2 L 8.7 U.S.qts 7.2 Imp.qts		Engine oil : API service classification CD, CE or CF Above 25 °C (77 °F) : SAE30, 10W-30 or 10W-40 0 to 25 °C (32 to 77 °F) : SAE20, 10W-30 or 10W-40 Below 0 °C (32 °F) : SAE10W, 10W-30 or 10W-40
4	Transmission case	43 L 11.4 U.S.gals 9.5 Imp.gals	45 L 11.9 U.S.gals 9.9 Imp.gals	KUBOTA UDT or SUPER UDT fluid*
5	Front axle case	6.5 L 6.9 U.S.qts 5.7 Imp.qts	6.0 L 6.3 U.S.qts 5.3 Imp.qts	KUBOTA UDT or SUPER UDT fluid* or SAE80, 90 gear oil

Greasing

	Place	No. of greasing point	Capacity	Type of grease
6	Front axle case support	2	Until grease overflows	Multipurpose type grease
	Front axle support	2		
	Top link	2		
	Top link bracket (if equipped)	2 (with draft control)		
	Lift rod	1		
	Lift cylinder	4		
	Battery terminal	2	Moderate amount	
	Throttle cable	Oiling		Engine oil

* KUBOTA original transmission hydraulic fluid.

■ **NOTE**

Engine Oil

- Oil used in the engine should have an American Petroleum Institute (API) service classification and Proper SAE Engine OIl according to the ambient temperatures as shown above.
- With the emission control now in effect, the CF-4 and CG-4 lubricating oils have been developed for use of a low-fulfur fuel on on-road vehicle engines. When an off-orad vehicle engine runs on a high-sulfur fuel, it is advisable to employ the CF, CD or CE lubricating oil with a high total base number. If **the CF-4 or CG-4 lubricating oil is used with a high-sulfur fuel, change the lubricating oil at shorter intervals.**
- Lubricating oil recommended when a low-sulfur or high-sulfur fuel is employed.

Fuel / Lubricating oil class	Low sulfur	High sulfur	Remarks
CF	❍	❍	TBN ≥ 10
CF-4	❍	X	
CG-4	❍	X	

❍ : Recommendable X : Not recommendable

W1035555

5. TIGHTENING TORQUES

Screws, bolts and nuts whose tightening torques are not specified in this Workshop Manual should be tightened according to tables below.

[1] GENERAL USE SCREWS, BOLTS AND NUTS

Indication on top of bolt	⬡ 4 **No-grade or 4T**						⬡ 7 **7T**						⬡ 9 **9T**		
Material of bolt	SS400, S20C						S43C, S48C						SCr435, SCM435		
Material of opponent part	Ordinariness			Aluminum			Ordinariness			Aluminum			Ordinariness		
Unit / **Diameter**	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs
M6 (6 mm, 0.24 in.)	7.85 to 9.31	0.80 to 0.95	5.79 to 6.87	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	9.81 to 11.2	1.00 to 1.15	7.24 to 8.31	7.85 to 8.82	0.80 to 0.90	5.79 to 6.50	12.3 to 14.2	1.25 to 1.45	9.05 to 10.4
M8 (8 mm, 0.31 in.)	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	16.7 to 19.6	1.7 to 2.0	12.3 to 14.4	23.6 to 27.4	2.4 to 2.8	17.4 to 20.2	17.7 to 20.5	1.8 to 2.1	13.1 to 15.1	29.5 to 34.3	3.0 to 3.5	21.7 to 25.3
M10 (10 mm, 0.39 in.)	39.3 to 45.1	4.0 to 4.6	29.0 to 33.2	31.4 to 34.3	3.2 to 3.5	23.2 to 25.3	48.1 to 55.8	4.9 to 5.7	35.5 to 41.2	39.3 to 44.1	4.0 to 4.5	29.0 to 32.5	60.9 to 70.6	6.2 to 7.2	44.9 to 52.0
M12 (12 mm, 0.47 in.)	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	–	–	–	77.5 to 90.2	7.9 to 9.2	57.2 to 66.5	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	103 to 117	10.5 to 12.0	76.0 to 86.7
M14 (14 mm, 0.55 in.)	108 to 125	11.0 to 12.8	79.6 to 92.5	–	–	–	124 to 147	12.6 to 15.0	91.2 to 108	–	–	–	167 to 196	17.0 to 20.0	123 to 144
M16 (16 mm, 0.63 in.)	167 to 191	17.0 to 19.5	123 to 141	–	–	–	197 to 225	20.0 to 23.0	145 to 166	–	–	–	260 to 304	26.5 to 31.0	192 to 224
M18 (18 mm, 0.71 in.)	246 to 284	25.0 to 29.0	181 to 209	–	–	–	275 to 318	28.0 to 32.5	203 to 235	–	–	–	344 to 402	35.0 to 41.0	254 to 296
M20 (20 mm, 0.79 in.)	334 to 392	34.0 to 40.0	246 to 289	–	–	–	368 to 431	37.5 to 44.0	272 to 318	–	–	–	491 to 568	50.0 to 58.0	362 to 419

W10345420

6. MAINTENANCE

No.	Item		Period	Indication on hour meter										Important	Reference page
				50	100	150	200	250	300	350	400	450	500		
1	Brake		Adjust	★	☆		☆		☆		☆		☆		G-18
2	Engine oil		Change	★	☆		☆		☆		☆		☆		G-15
3	Engine oil filter		Replace	★			☆				☆				G-15
4	Hydraulic oil filter		Replace	★			☆				☆				G-16
5	Transmission fluid		Change	★							☆				G-17
6	Front axle case oil		Change	★							☆				G-18
7	Engine start system		Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆		G-20, 21
8	Wheel bolt torque		Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆		G-21
9	Greasing		–	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆		G-19
10	Battery condition		Check		☆		☆		☆		☆		☆	*5	G-25
11	Air cleaner element [Double type]	Primary element	Clean		☆		☆		☆		☆		☆	*1	G-22
			Replace											*2	G-32
		Secondary element	Replace												G-32
12	Clutch		Adjust		☆		☆		☆		☆		☆		G-24
13	Parking brake (cable)		Adjust		☆		☆		☆		☆		☆		G-27
			Replace												G-27
14	Fuel filter element		Clean		☆		☆		☆		☆		☆		G-23
			Replace								☆				G-31
15	Fan belt		Adjust		☆		☆		☆		☆		☆		G-23
16	Fuel line		Check		☆		☆		☆		☆		☆		G-24
			Replace												G-32
17	Transmission oil filter [HST]		Replace				☆				☆				G-16
18	HST oil line [HST]		Check				☆				☆				G-29
			Replace											*3	G-32
19	Radiator hose and clamp		Check				☆				☆				G-27
			Replace												G-32
20	Power steering oil line		Check				☆				☆				G-29
			Replace												G-32
21	Toe-in		Adjust				☆				☆				G-28
22	Front axle pivot		Adjust					☆							G-31
23	Engine valve clearance		Adjust						☆					*4	1-S27
24	Cooling system		Flush										☆		G-33
25	Coolant		Change										☆		G-33
26	Fuel system		Bleed												G-34
27	Clutch housing water		Drain												G-35
28	Fuse		Replace												G-36
29	Light bulb		Replace												G-37

■ IMPORTANT

- **The jobs indicated by ★ must be done after the first 50 hours of operation.**
- ***1 : Air cleaner should be cleaned more often in dusty conditions than in normal conditions.**
- ***2 : Every year or every 6 times of cleaning.**
- ***3 : Replace only if necessary.**
- ***4 : Consult your local KUBOTA distributor for this service.**
- ***5 : When the battery is used for less than 100 hours per year, check the battery condition by reading the indication annually.**
- **The items listed above (@ marked) are registered as emission related critical parts by KUBOTA in the U.S.EPA nonroad emission regulation. As the engine owner, you are responsible for the performance of the required maintenance on the engine according to the above instruction. Please see the Warranty Statement in detail.**

W10357690

No.	Item		Period	Indication on hour meter						After purchase		Important	Reference page
				550	600	650	700	750	800	1 year	2 years		
1	Brake		Adjust		☆		☆		☆				G-18
2	Engine oil		Change		☆		☆		☆				G-15
3	Engine oil filter		Replace		☆				☆				G-15
4	Hydraulic oil filter		Replace		☆				☆				G-16
5	Transmission fluid		Change						☆				G-17
6	Front axle case oil		Change						☆				G-18
7	Engine start system		Check	☆	☆	☆	☆	☆	☆				G-20, 21
8	Wheel bolt torque		Check	☆	☆	☆	☆	☆	☆				G-21
9	Greasing		–	☆	☆	☆	☆	☆	☆				G-19
10	Battery condition		Check		☆		☆		☆			*5	G-25
11	Air cleaner element [Double type]	Primary element	Clean		☆		☆		☆			*1	G-22
			Replace								☆	*2	G-22
		Secondary element	Replace								☆		G-32
12	Clutch		Adjust		☆		☆		☆				G-24
13	Parking brake (cable)		Adjust		☆		☆		☆				G-27
			Replace								☆		G-27
14	Fuel filter element		Clean		☆		☆		☆				G-23
			Replace								☆		G-31
15	Fan belt		Adjust		☆		☆		☆				G-23
16	Fuel line		Check		☆		☆		☆				G-24
			Replace								☆	*3	G-32
17	Transmission oil filter [HST]		Replace		☆				☆				G-16
18	HST oil line [HST]		Check		☆				☆				G-29
			Replace								☆		G-32
19	Radiator hose and clamp		Check		☆				☆				G-27
			Replace								☆		G-32
20	Power steering oil line		Check		☆				☆				G-29
			Replace								☆		G-32
21	Toe-in		Adjust		☆				☆				G-28
22	Front axle pivot		Adjust		☆								G-31
23	Engine valve clearance		Adjust						☆			*4	1-S27
24	Cooling system		Flush								☆		G-33
25	Coolant		Change								☆		G-33
26	Fuel system		Bleed							Service as required			G-34
27	Clutch housing water		Drain										G-35
28	Fuse		Replace										G-36
29	Light bulb		Replace										G-37

■ IMPORTANT

- **The jobs indicated by ★ must be done after the first 50 hours of operation.**
- ***1 : Air cleaner should be cleaned more often in dusty conditions than in normal conditions.**
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- ***3 : Replace only if necessary.**
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- ***5 : When the battery is used for less than 100 hours per year, check the battery condition by reading the indication annually.**
- **The items listed above (@ marked) are registered as emission related critical parts by KUBOTA in the U.S.EPA nonroad emission regulation. As the engine owner, you are responsible for the performance of the required maintenance on the engine according to the above instruction. Please see the Warranty Statement in detail.**

W10511390

(Only the Check Points Different from Those for Tractors with CABIN)

No.	Item \ Period		Indication on hour meter										Important	Reference page
			50	100	150	200	250	300	350	400	450	500		
1	Clogging of air conditioner condenser screen	Clean											Daily	–
2	Tension of air conditioner drive belt	Adjust				☆								G-29
3	Clogging of inner air filter	Clean				☆								G-30
4	Clogging of fresh air filter	Clean				☆								G-30
5	Clogging of air conditioner condenser	Check				☆								G-31
6	Air conditioner pipes and hoses	Check												G-32
7	CABIN isolation cushion	Check												G-32
8	Lubricating points	Check	Service as required											G-37
9	Washer liquid	Check												G-37
10	Amount of refrigerant (gas)	Check												G-38

W11154790

(Only the Check Points Different from Those for Tractors with CABIN)

No.	Item \ Period		Indication on hour meter						After purchase		Important	Reference page
			550	600	650	700	750	800	1 year	2 years		
1	Clogging of air conditioner condenser screen	Clean									Daily	–
2	Tension of air conditioner drive belt	Adjust										G-29
3	Clogging of inner air filter	Clean										G-30
4	Clogging of fresh air filter	Clean										G-30
5	Clogging of air conditioner condenser	Check										G-31
6	Air conditioner pipes and hoses	Check							☆			G-32
7	CABIN isolation cushion	Check							☆			G-32
8	Lubricating points	Check	Service as required									G-37
9	Washer liquid	Check										G-37
10	Amount of refrigerant (gas)	Check										G-38

W10606470

7. CHECK AND MAINTENANCE

CAUTION

- **Be sure to check and service the tractor on a flat place with engine shut off, the parking brake on and chock the wheels.**

[1] DAILY CHECK

To prevent trouble from occurring, it is important to know the condition of the tractor. Check the following items before starting.

Checking

- Check areas where previous trouble was experienced.
- Walk around the tractor.

1. Check the tire pressure, and check for wear and damage.
2. Check for oil and water leak.
3. Check the engine oil level.
4. Check the transmission fluid level.
5. Check the coolant level.
6. Check the condition of ROPS attaching hardware.
7. Check and clean the radiator screen, grill and oil cooler. (HST only)
8. Check and clean the air condenser screen. (CABIN only)
9. Check the screws and nuts of tires are tight.
10. Check the number plate.
11. Care of danger, warning and caution labels.
12. Clean around the exhaust manifold and the muffler of the engine.
13. Check the fuel level.
14. Check the dust indicator.

- While sitting in the operator's seat.

1. Check the brake pedals and clutch pedal.
2. Check the parking brake.
3. Check the steering wheel.

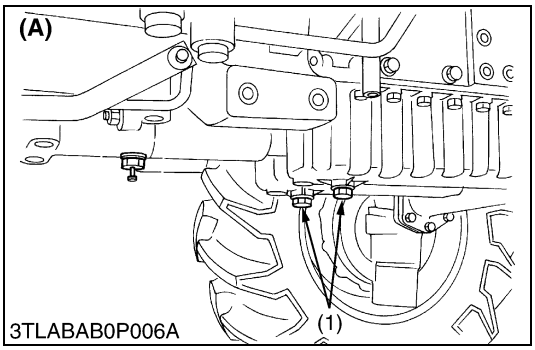
- Turning the key switch.

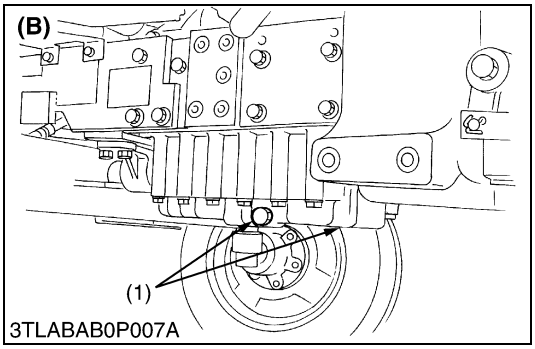
1. Check the performance of the easy checker lights.
2. Check the lights, turn signal lights, hazard lights and other light equipment. Clean if necessary.
3. Check the performance of the meters and gauges.

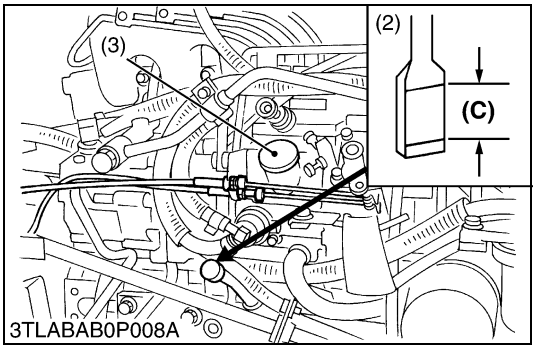
- Starting the engine.

1. Check to see that the lights on the easy checker go off.
2. Check the color of the exhaust gas.
3. Check the brakes for proper operation.

[2] CHECK POINTS OF INITIAL 50 HOURS







Changing Engine Oil

CAUTION

- **Before changing oil, be sure to stop the engine.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Start and warm up the engine for approx. 5 minutes.
2. Place an oil pan underneath the engine.
3. To drain the used oil, remove the both drain plugs (1) at the bottom of the engine and drain the oil completely.
4. Screw in the both drain plugs (1).
5. Fill new oil up to upper line on the dipstick (2).

IMPORTANT

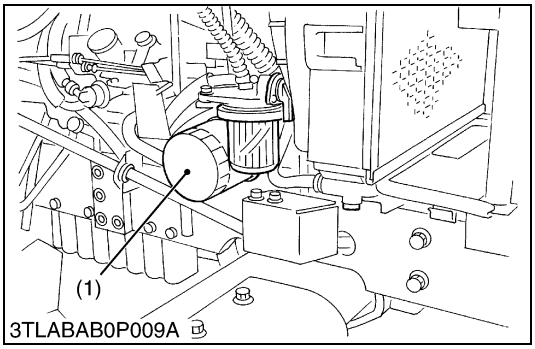
- **When using an oil of different manufacture or viscosity from the previous one, remove all of the old oil.**
- **Never mix two different types of oil.**
- **Use the proper SAE Engine Oil according to ambient temperatures.**
- **Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-7, 8.)**

Engine oil capacity (with filter)	L3130 L3430	5.7 L 6.0 U.S.qts 5.0 Imp.qts
	L3830	6.7 L 7.1 U.S.qts 5.9 Imp.qts
	L4630 L5030	8.2 L 8.7 U.S.qts 7.2 Imp.qts

(1) Drain Plug
(2) Dipstick
(3) Oil Inlet

(A) L3130, L3430, L4630, L5030
(B) L3830
(C) Oil level is acceptable within this range.

W10145330



Replacing Engine Oil Filter Cartridge

CAUTION

- **Be sure to stop the engine before changing oil filter cartridge.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

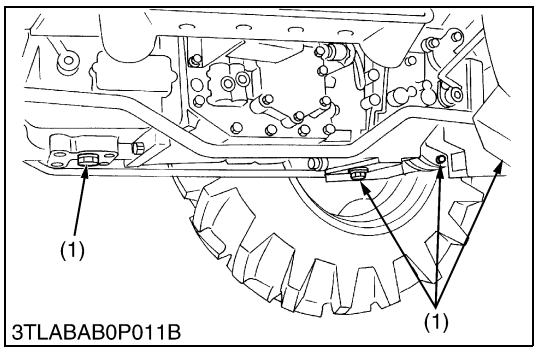
1. Remove the oil filter cartridge with the filter wrench.
2. Apply a slight coat of oil onto the new cartridge gasket.
3. To install the new cartridge, screw it in by hand. Over tightening may cause deformation of rubber gasket.
4. After the new cartridge has been replaced, the engine oil normally decrease a little. Thus see that the engine oil does not leak through the seal and be sure to read the oil level on the dipstick. Then, replenish the engine oil up to the specified level.

IMPORTANT

- **To prevent serious damage to the engine, replacement element must be highly efficient. Use only a KUBOTA genuine filter or its equivalent.**

(1) Engine Oil Filter Cartridge

W10148920



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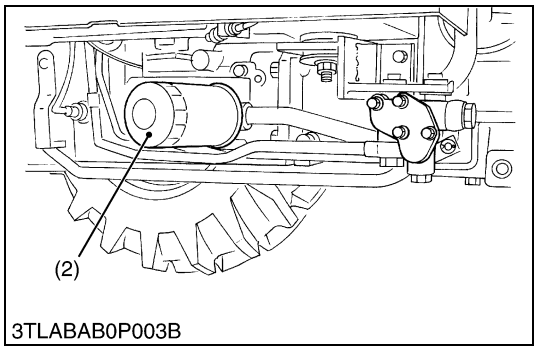

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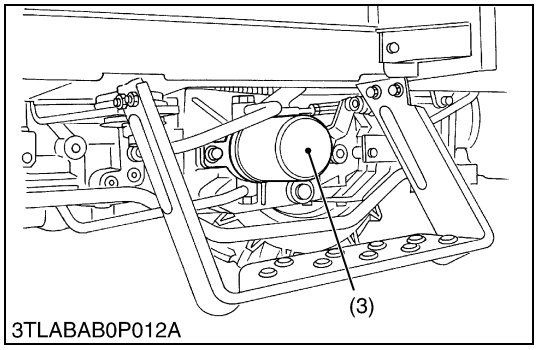

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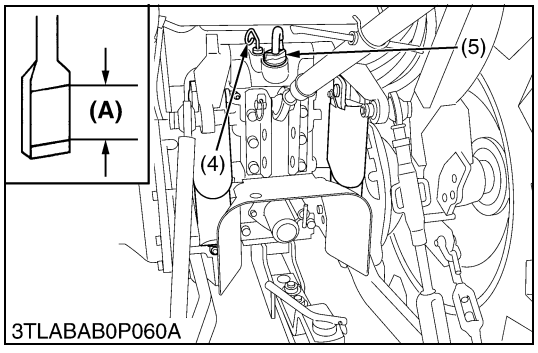

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Replacing Hydraulic Oil Filter / Replacing Transmission Oil Filter [HST Type]

CAUTION

- **Be sure to stop the engine before changing the oil filter cartridge.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Remove the drain plugs at the bottom of the transmission case drain the oil completely into the oil pan.
2. After draining reinstall the drain plugs.
3. Remove the oil filter.
4. Put a film of clean transmission oil on the rubber seal of the new filter.
5. [Hydraulic oil filter]
   Quickly tighten the filter until it contacts the mounting surface, then tighten it by hand an additional 1/2 turn only.
   [Transmission oil filter]
   Quickly tighten the filter until it contacts the mounting surface, then with a filter wrench, tighten it an additional 1 turn only.
6. After the new filters have been replaced, fill the transmission oil up to the upper notch on the dipstick.
7. After running the engine for a few minutes, stop the engine and check the oil level again, add oil to the prescribed level.
8. Make sure that the transmission fluid does not leak past the seal on the filter.

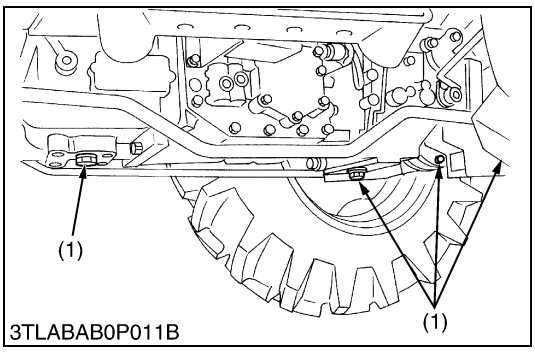
■ IMPORTANT

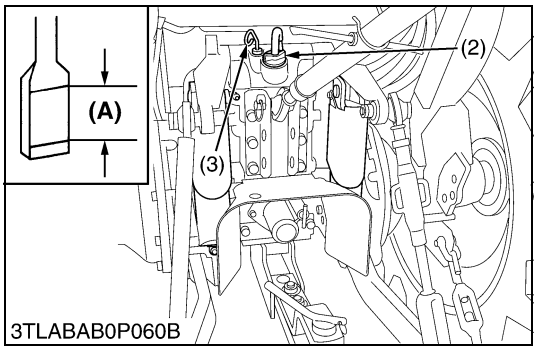
- **To prevent serious damage to the hydraulic system, use only a KUBOTA genuine filter.**

(1) Drain Plugs
(2) Hydraulic Oil Filter
(3) Transmission Oil Filter [HST Type]
(4) Dipstick
(5) Oil Inlet

(A) Oil level is acceptable within this range.

W1064569





Changing Transmission Fluid

CAUTION

- **Be sure to stop the engine checking and changing the transmission fluid.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Place an oil pan under the tractor.
2. Remove the drain plugs (1) at the bottom of the transmission case.
3. Drain the transmission fluid.
4. After draining, screw in the drain plugs.
5. Fill new oil from filling port after removing the filling plug (2) up to the upper line of the dipstick (3).
6. After running the engine for a few minutes, stop it and check the oil level again, if low, add oil prescribed level.

■ IMPORTANT

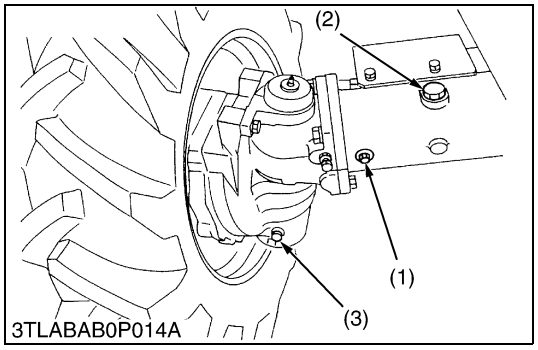
- **Use only multi-grade transmission oil. Use of other oils may damage the transmission or hydraulic system.**
  Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-7, 8.)
- **Never work the tractor immediately after changing the transmission oil. Keeping the engine at medium speed for a few minutes to prevents damage to the transmission.**
- **Do not mix different blands oil together.**

Transmission fluid capacity	L3130, L3430	42 L 11.1 U.S.gals 9.2 Imp.gals
	L3830, L4630	43 L 11.4 U.S.gals 9.5 Imp.gals
	L5030	45 L 11.9 U.S.gals 9.9 Imp.gals

(1) Drain Plug
(2) Filling Plug
(3) Dipstick

(A) Oil level is acceptable within this range.

W1068655



Changing Front Axle Case Oil

CAUTION

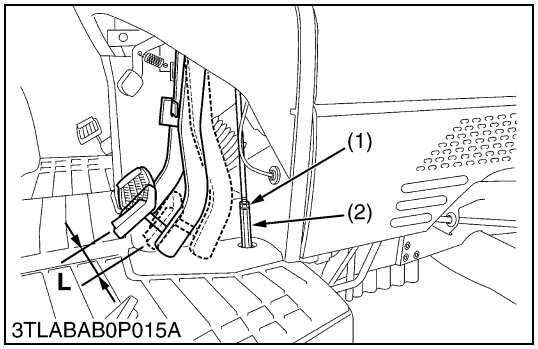
- **Be sure to stop the engine before changing the front axle case oil.**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

1. Remove the right and left drain plugs (3) and filling plug (2) at the front axle case and drain the oil completely.
2. After draining, reinstall the drain plugs (3).
3. Remove the right and left check plugs (1).
4. Fill new oil from filling port with specified amount of oil.
   Refer to **"LUBRICANTS, FUEL AND COOLANT"**. (See page G-7, 8.)
5. Reinstall the filling plug (2) and check plug (1).

Front axle case oil capacity	L3130 L3430 L3830 L4630	6.5 L 6.9 U.S.qts 5.7 Imp.qts
	L5030	6.0 L 6.3 U.S.qts 5.3 Imp.qts

(1) Check Plug
(2) Filling Plug
(3) Drain Plug

W10300640



Adjuting Brake Pedal Free Travel

CAUTION

- **Stop the engine and chock the wheels before checking brake pedal.**

1. Release the parking brake.
2. Slightly depress the brake pedals and measure free travel (**L**) at top of pedal stroke.
3. If the measurement is not within the factory specifications, loosen the lock nut (1) and turn the turnbuckle (2) to adjust the rod length within acceptable limits.
4. Retighten the lock nut (1) securely.
   Keep the free travel in the right and left brake pedals equal.

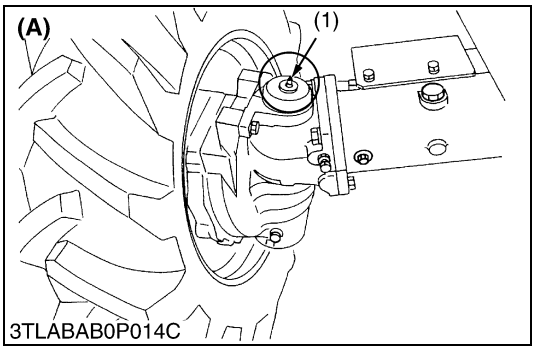
Brake pedal free travel **"L"**	Factory spec.	15 to 20 mm 0.59 to 0.79 in.

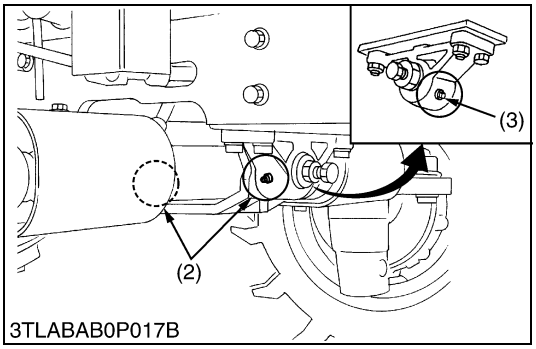
(1) Lock Nut
(2) Turnbuckle

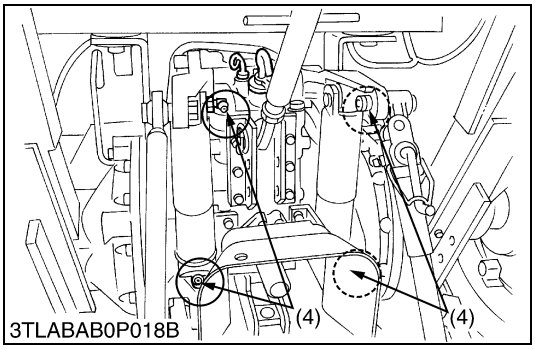
L : Free Travel

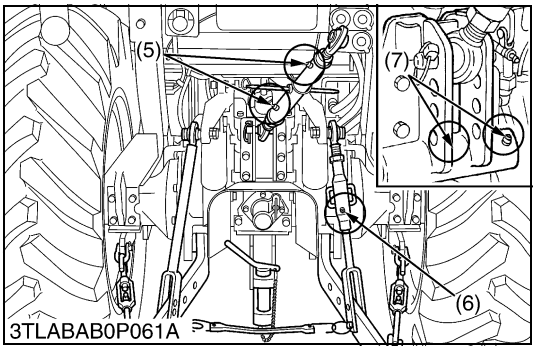
W10293350

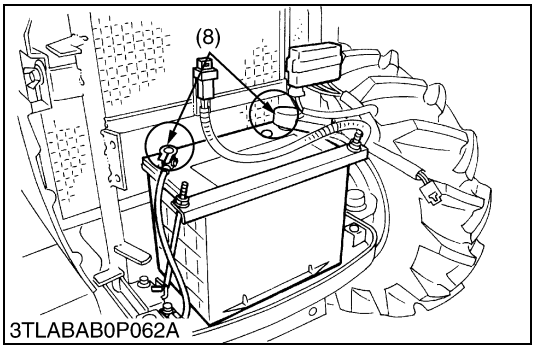
[3] CHECK POINTS OF EVERY 50 HOURS











Greasing

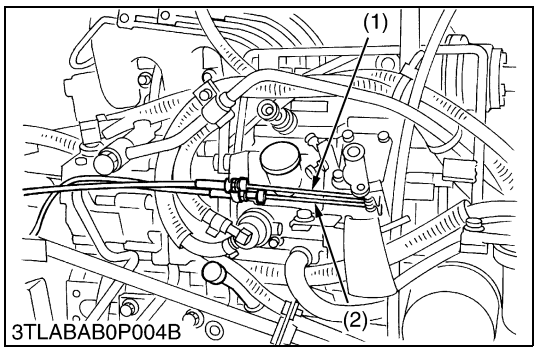
1. Apply a grease to the following position as figures.

■ **NOTE**

- **Apply a small amount of multipurpose grease to the following points every 50 hours.**
  If you operated the machine in extremely wet and muddy conditions, lubricate grease fittings more often.
- **When apply a grease to the front axle support, remove the breather plug and apply a grease until grease overflows from breather plug. After greasing reinstall the plug.**

(1) Grease Fitting (Front Wheel Case Support RH, LH)
(2) Grease Fitting (Front Axle Support)
(3) Breather Plug
(4) Grease Fitting (Lift Cylinder)
(5) Grease Fitting (Top Link)
(6) Grease Fitting (Lifting Rod RH)
(7) Grease Fitting (Toplink Bracket)
(8) Battery Terminal
(A) L5030

W10308650



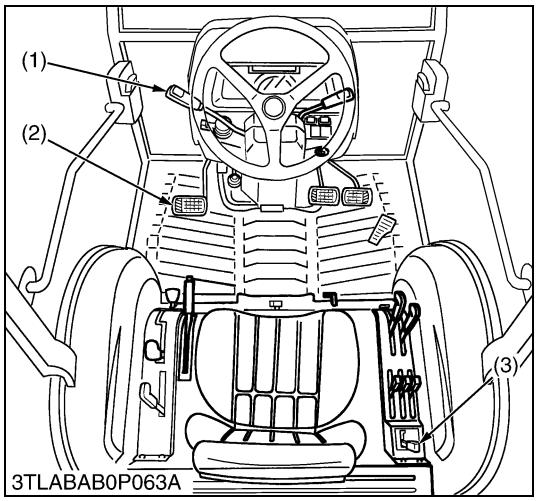
Oiling

CAUTION

- **Be sure to stop the engine and remove the key before oiling.**

(1) Hand Throttle Cable
(2) Foot Throttle Cable (GST/Manual Transmission Type)

W1072984



Checking Engine Start System (GST/Manual Transmission Type)

CAUTION

- **Do not allow anyone near the tractor while testing.**
- **If the tractor does not pass the test, do not operate the tractor.**

■ **Preparation before testing.**

1. Place all control levers in the **"NEUTRAL"** position.
2. Set the parking brake and stop the engine.

■ **Test 1 : Switch for the shuttle shift lever.**

1. Sit on operator's seat.
2. Shift the shuttle shift lever to the forward or reverse position.
3. Depress the clutch pedal fully.
4. Disengage the PTO clutch control lever.
5. Turn the key to **"START"** position.
6. The engine must not crank.

■ **Test 2 : Switch for the PTO clutch control lever.**

1. Sit on operator's seat.
2. Engage the PTO clutch control lever.
3. Depress the clutch pedal fully.
4. Shift the range gear shift lever to the neutral position.
5. Turn the key to **"START"** position.
6. The engine must not crank.

■ **If it cranks at the test 1 or 2, adjust or replace the required safety switch.**

(1) Shuttle Shift Lever
(2) Clutch Pedal
(3) PTO Clutch Control Lever

W10312010