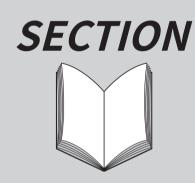
## **PREFACE**

#### THANK YOU FOR PURCHASING A TYM 2200, 2500, 2500H, 2500L, 2500HL TRACTOR.

#### BEFORE USE, READ AND UNDERSTAND THIS MANUAL COMPLETELY.

- 1. After reading this manual, keep it close to the tractor for immediate reference.
- 2. Anyone operating this tractor should review this manual.
- 3. In case this manual is lost or damaged, please contact your nearest authorized dealer for a copy.
- 4. Some parts of this product may have been changed for the improvement of quality or for safety reason.
- 5. In this case, the photographs or drawings of such parts in this booklet may not be the same as the actual parts installed on this product.
- 6. If you find anything in this manual unclear or in need of further explanation, please contact your authorized dealer for inquiry.

# **TABLE OF CONTENTS**



ABOUT WARRANTY	2
• SPECIFICATION ······	3
• OPERATION DESCRIPTION ······	4
• OPERATION & WORK ······	5
• MAINTENANCE AFTER WORK ······	6

• TROUBLE SHOOTING ······

• STORAGE AND DISPOSAL ······

• INDEX .....

## SAFETY AND VEHICLE DAMAGE WARNING

The instructions given with the following marks are very important for your safety.

A
DANGER

Failure to observe the instruction given with this mark may result in death or injury.



Failure to observe the instruction given with this mark may expose you to the risk of death or injury.



Failure to observe the instruction given with this mark may expose you to injury.

- The section, "To Ensure Safe Operation," on the following pages details safety points to be observed to ensure safe operation of your tractor.
- Please make sure you read it carefully before operating the tractor.

**NOTE** 

This instruction is to give an additional description to operator so that he/she can operate the machine more effectively.



Read this Manual for correct and safe use of the product. Failure to use the product properly may result in an accident. Keep this Manual close to the tractor after you have read it.

# SYMBOL MARKS OF CONTROLLER

This manual includes symbol marks of the controller to simplify operations for maneuverability and maintenance. These meanings are as below, so carefully read it for a proper function.



## "USE AND DISPOSAL" POLICY CONCERNED WITH ENVIRONMENT PRESERVATION

We try our best to preserve the environment and are always concerned about our environmental impact at each step of planning, development, production, distribution, use and disposal of products, and for our overall operations through an "environmentally friendly" management system. We comply with international environmental regulations, environmental regulations designated by country and local authorities and other requirements with which we are in agreement, and we work towards the prevention of environmental pollution and the conservation of resources. We provide environmental education and have an awareness campaign to raise environmental awareness among all our employees and members of the supporting companies.

We introduce the "Use and Disposal" policy concerned with environment preservation as follows.

- 1. Please read the operator's manual thoroughly for global environment protection. Overload on the machine shortens the product life and increases the harmful exhaust gas, which causes air pollution due to the incomplete combustion.
- 2. When replacing various fluids (for engine, transmission, hydraulics, etc.) by yourself, don't dispose the used oil to anywhere not recommended. It can pollute the ground and water. Please contact your local dealer to dispose it legally.
- 3. Observe the operator's manual and store or dispose the waste product properly. Rust, oil, etc. leaked from waste product improperly stored can pollute the ground and water. Accordingly for a waste product disposal, contact the necessarily "approved waste collection and recycling facility" to discard the used materials legally.

# 1. FOR SAFE OPERATION

SAFETY PRECAUTIONS	1-2
BEFORE USING THE MACHINE	1-2
BEFORE WORKING	1-11
WHILE WORKING	1-16
AFTER USING THE MACHINE	1-17
PRECAUTION FOR PROLONGED STORAGE	1-21
OTHER	1-23
LOCATION OF SAFETY DECALS	1-31

#### **SAFETY PRECAUTIONS**

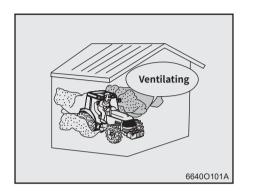
If the instructions in this chapter are ignored, it may cause a machine failure, a fatal accident with injury or death.

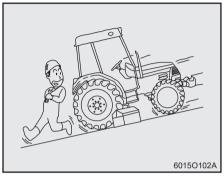
For further detailed information, refer to each chapter.

#### **NOTE**

- Please understand that some of the figures or contents in this manual may not match with your own machine due to the product variation.
- This tractor is not designed for road driving. Please use a truck to move this machine on the public roads.

#### BEFORE USING THE MACHINE





## **⚠ WARNING**

Beware of exhaust gas;

 Running the engine, repairing (tightening) any painted part or grinding any painted area should be performed only in a well-ventilated area.

If this instruction is ignored, the exhaust gas or dust can cause intoxication and lead to fatal consequences.

#### **↑** WARNING

Wide and flat enough area;

 Inspect or repair the tractor on a wide and flat area.

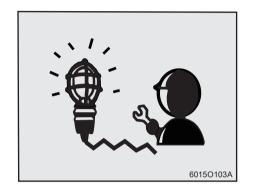
If this instruction is ignored, an unexpected accident may occur, such as overturning of the tractor.

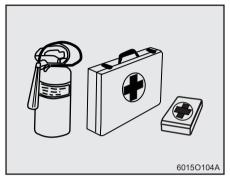
#### **WARNING**

Clean and arranged place;

• Do not mess the place by dust, mud, oil, or parts

If this instruction is ignored, an unexpected accident may occur.





#### **⚠ WARNING**

Carry out maintenance in a well-lit place;

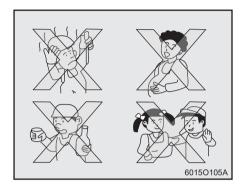
- Make sure work area is properly lighted.
- Use safety work lights with protective covering when working inside or under the machine.

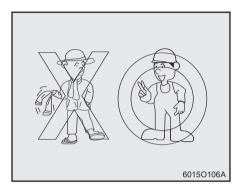
If this instruction is ignored, an unexpected accident may occur, possibly fire or explosion.

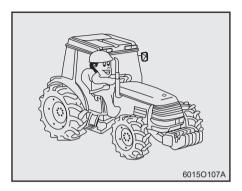
#### **↑** WARNING

Prepare for emergencies;

 Keep a first aid kit and fire extinguisher handy at all times while operating machine.







#### **↑** WARNING

Do not drive if you are;

- Unable to concentrate because of fatigue, under treatment of medicine.
- Under the influence of alcohol
- Pregnant
- Under the age of 18

## **⚠ WARNING**

Wear properly for the job;

Hair band, loose clothing is not allowed. Wear tight clothes, work hat, and work shoes which have rough bottoms against slippery surface.

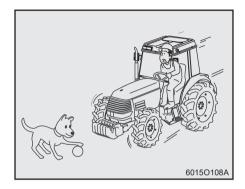
If this instruction is ignored, you will be exposed to a risk of being entangled, slipping, or falling.

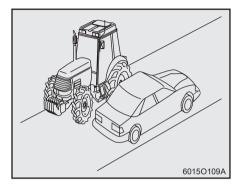
#### **⚠** WARNING

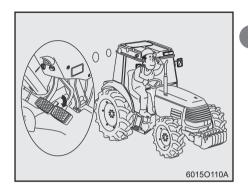
Use only recommended implements;

 Be sure to use only implements which are recommended by manufacturer.

If this instruction is ignored, an unexpected accident may occur or tractor may not perform properly.







Start the machine slowly after reminding bystander;

 Start the engine after reminding bystanders of your intension. Do not start the machine abruptly.

If this instruction is ignored, unexpected accident or injury can happen.

## **↑** WARNING

Pay attention to the shoulder of the road;

 When moving along the unpaved road with ditches or slanted sides, pay attention to the shoulders.

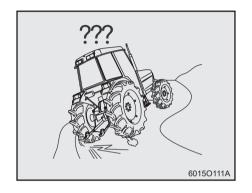
If this instruction is ignored, there is a risk of falling over.

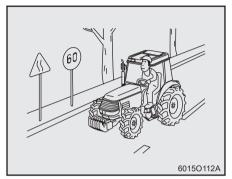
#### **↑** WARNING

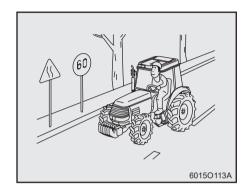
Interlock the brake pedals (left and right) when driving on a road;

 Make sure to interlock the brake pedals (left and right) when driving on a road

If this instruction is ignored, there is a risk of abrupt turning or overturning due to one-sided braking.







Avoid rapid starting, braking, turning, and excessive speed;

Start and stop the tractor slowly.
 Reduce engine speed when making a turn and driving on hilly or curved roads.

If this instruction is ignored, there is a risk of overturning or damage to the machine.

# **⚠ WARNING**

Observe traffic regulations and drive safely;

 When driving on the road, observe the traffic regulations and wear a hard hat and seat belt.

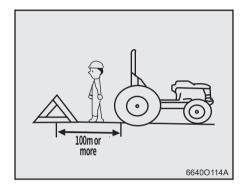
If this instruction is ignored, there is a risk of accident or injury.

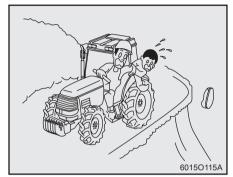
#### **↑** WARNING

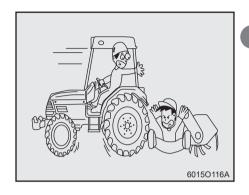
Observe traffic regulations when driving on a road safely;

 If the machine is broke down and stopped on the road, move the machine to a safe place out of the road.

If this instruction is ignored, there is a risk of accident or injury.







## **↑** WARNING

Put machine shut down sign if the machine is stopped on the road;

 If the tractor is stopped on the road due to the machine failure, put the machine shut down sign (Emergency triangle reflex reflector) at least 100~200 yards before failed machine in accordance with local traffic laws.

If this instruction is ignored, the machine can be hit by a car and cause a traffic accident with injury or death.

## **⚠ WARNING**

Only driver should be aboard the tractor while in operation;

- This tractor is designed to allow only one operator. The driver must not allow anyone else to get on the tractor.
- Especially never allow children on the machine while in use.

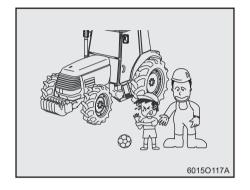
If this instruction is ignored, an unexpected accident may occur.

## **↑** WARNING

Do not allow anyone near while operating the tractor or implement;

 When engaging or disengaging the implement by moving the tractor, make sure that no one is around the tractor or between the implement and the tractor.

If this instruction is ignored, there is a risk of accident or injury.







Precautions for children;

 Fully warn the children and keep them away from the tractor at all times.

If this instruction is ignored, unexpected accident of injury can happen.

#### **WARNING**

Properly train anyone operating;

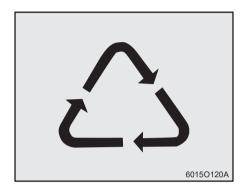
 Explain the handling tips in detail and make sure the driver reads the Manual before driving.

If this instruction is ignored, there is a risk of death, serious injury, or damage to tractor.

#### **↑** WARNING

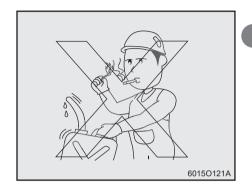
Use Pesticides safely;

Careless use of agricultural chemicals such as disinfectants, herbicide, pesticides, rat poison, and fertilizer can be harmful to environment and human body. Be sure to observe all relevant regulation and instructions to use the agricultural chemicals efficiently and safely. Then it may prevent injury or accident.



Observe all relevant regulations for disposal;

- Be sure to observe all relevant regulations when you dispose of the engine oil, transmission oil, fuel, coolant, filters and battery.
- Never dispose the used oil directly to the river or drainage, follow legal procedures.



## **∴** WARNING

Observe all relevant regulations for disposal;

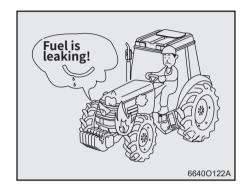
- Careless disposal of waste product can be harmful to environment and ecosystem.
- When draining the fuel and oil, use a proper container that is not leaking, not food or beverage containers to prevent from drinking. Do not bury the waste product in the ground or dispose to drainage.

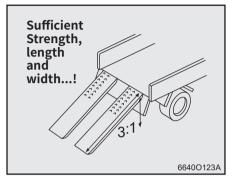
#### **↑** WARNING

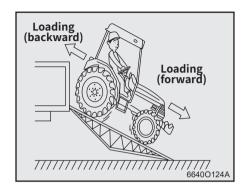
No smoking or open flame when fueling;

• Do not smoke or use match or lighter while refueling.

If this instruction is ignored, fuel can catch fire and lead to explosion or fatal injury with burn.







Inspect for fuel leaking;

 Check the fuel lines and hoses for damage or leakage

If this instruction is ignored, there is a risk of fire.

## **↑** WARNING

Consider the strength, length and width of loading ramps before using;

 Loading or unloading must be done on a flat and safe place, the tractor engine switched off, and the parking brake engaged. The loading ramps must be nonslip and have sufficient strength, length, and width for the tractor.

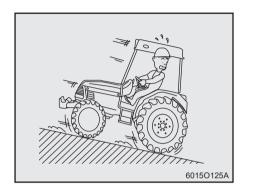
If this instruction is ignored, the tractor may roll backwards or fall off causing accident or injury.

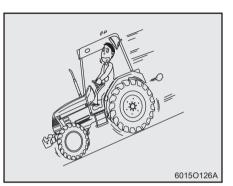
#### **⚠** WARNING

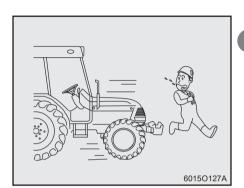
Move the tractor backward when loading, and forward when unloading;

 Move the tractor backward when loading it on the truck, and forward when unloading from the truck.

If this instruction is ignored, the tractor may roll or fall off causing accident or Injury.







**BEFORE WORKING** 

#### **MARNING**

Be careful when driving on the loading ramps;

 Be careful when driving on the loading ramps. Do not disengage the clutch, shift the main shift, range shift, or forward/reverse lever.

If this instruction is ignored, the tractor may roll backwards or fall causing accident or injury.

## **⚠ WARNING**

Do not shift gears on slopes or on the loading ramps;

 When driving on slopes or on loading ramps, select the proper shift gear before approaching the loading ramps and then do not shift the gear on the loading ramps.

If this instruction is ignored, there is a risk of slipping, rolling, or over-turning.

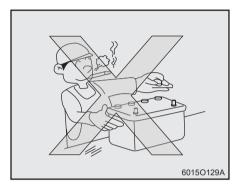
#### **CAUTION**

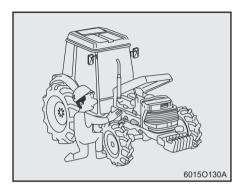
Stop the engine before maintenance;

 Stop the engine before maintenance when checking, repairing or cleaning the machine.

If this instruction is ignored, there is a risk of injury.







#### **▲** DANGER

Stop and cool down the engine before fueling or lubricating;

• Do not fill the fuel while the engine is running or machine is hot.

If this instruction is ignored, fuel can catch fire or lead to fatal injury with burn.

## **⚠** DANGER

No fire or spark near to the battery;

 No fire or spark near to the battery while checking and charging the battery.

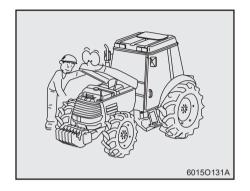
If this instruction is ignored, the battery can cause a blaze or explosion and lead to a fatal injury or death.

#### **DANGER**

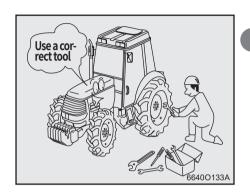
Remove dirt and debris from muffler and engine before operating;

 Clean if there is dust, debris or fuel on the engine or muffler before operating the machine every day.

If this instruction is ignored, there is a risk of fire.







## WARNING

Check electrical component and wire harness;

• Check before work if the wire harnesses are burned or stuck on any other component, if the cord cover is peeled off or if the wire connectors are loose.

If this instruction is ignored, the electrical short can cause fire and injury.

## **CAUTION**

Do not over inflate tires;

• When filling tires with air, do not inflate it beyond the maximum pressure stated in this manual. (Refer to P5-22 of Proper inflation pressure)

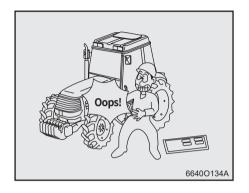
If this instruction is ignored, the tire may blow out, causing an injury.

#### **CAUTION**

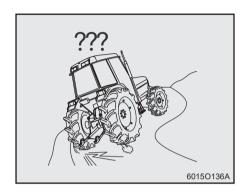
Use correct tools:

• Use proper tools to carry out all maintenance procedure. Also have available the required tools in the tractor at all times.

If this instruction is ignored, there is a risk of accident due to poor maintenance.







## **↑** CAUTION

Secure hood and side covers before operating tractor;

 After detaching the covers for checking or maintenance, make sure to put them back in their place.

If this instruction is ignored, there is a risk that you may get entangled in the tractor or get injured.

## **↑** CAUTION

Observe correct procedures when installing or removing the battery;

 Connect the (+) terminal first when installing the battery, and disconnect the (-) terminal first when removing it.

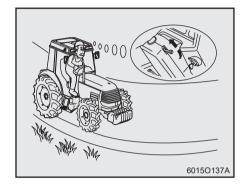
If this instruction is ignored, there is a risk of burn or fire due to short circuit.

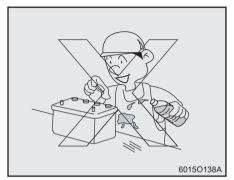
#### **↑** WARNING

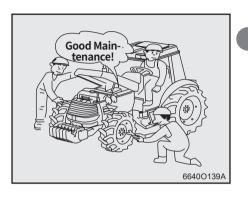
It is necessary to inspect the brake and steering wheel;

 Check if the brakes work properly and evenly on both sides or if the steering wheel is loose.

If this instruction is ignored, there is a risk of accident.







## **↑** WARNING

Lock tilt lever and telescopic knob when adjusting steering wheel;

 Except when you adjust the steering wheel, make sure that the tilt lever and telescopic knob are secured in the "No" and "Lock" positions.

If this instruction is ignored, the tractor may not turn properly, causing an accident.

## **⚠** DANGER

Avoid contact with the battery solution;

 Be careful that your body or your clothes do not come in contact with the battery solution. If it contacts your skin, wash immediately with water.

If this instruction is ignored, it can burn your skin or clothes.

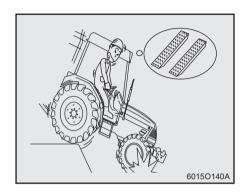
#### **↑** WARNING

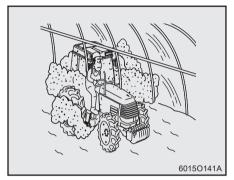
Be sure to check before and after using machine;

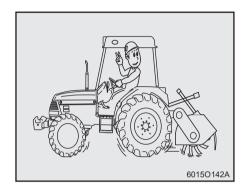
 Be sure to check the machine before and after using. Especially inspect and repair controls such as clutch, brake, lever, etc.

If this instruction is ignored, the machine can be broken or lead to an accident or injury.

#### WHILE WORKING







#### **↑** WARNING

Use the loading ramps when crossing a ditch or a dike;

 Be sure to use the loading ramps when crossing a ditch or dike, or when passing through soft land. The loading ramps must be suitable for the tractor in width, length and strength.

If this instruction is ignored, there is a risk of accident that the tractor may slip or turn over.

## **№ WARNING**

Properly ventilate when working in a green house;

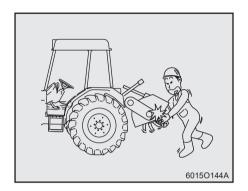
• Ventilate the green house to let out the exhaust gas.

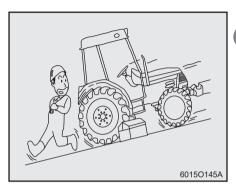
If this instruction is ignored, the exhaust gas can cause intoxication and lead to fatal consequences.

#### **⚠** WARNING

Pay attention and keep hands on the steering wheel while driving; If this instruction is ignored, there is a risk of accident or injury.

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AFTER USING THE MACHINE

## **↑** WARNING

Do not allow anyone near while operating the tractor or implement;

 When engaging or disengaging the implement by moving the tractor, make sure that no one is around the tractor or between the implement and the tractor.

If this instruction is ignored, there is a risk of accident or injury.

## **↑** WARNING

Stop the engine when removing grass, etc. from blades of the cultivator;

 Stop the engine when removing grass, etc. from blades of the cultivator and lock the flow control valve not to lower the implement.

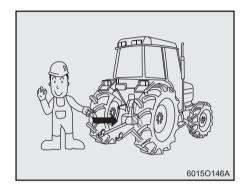
If this instruction is ignored, there is a risk that you will get entangled in the cultivator or sustain a serious injury due to lowering the implement.

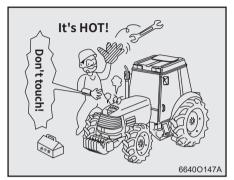
#### **↑** WARNING

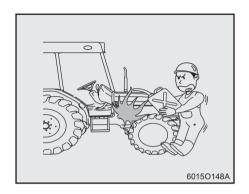
Perform the maintenance on a level and safe location;

 Perform the maintenance on a level and safe location that will keep the tractor in place and will not cause a risk to people passing by. Before carrying out the maintenance, place blocks at the front and rear tires to prevent movement.

If this instruction is ignored, an unexpected accident may occur, such as overturning of the tractor.







## **↑** CAUTION

Cover the PTO shaft when not in use:

• When the PTO shaft is not in use,

apply grease and keep it covered. If this instruction is ignored, there is a risk that you may get entangled or get injured. Implement shaft installation on the PTO shaft will not be easy due to the rust on it.

## **↑** CAUTION

Carry out maintenance after the parts have cooled down;

 Carry out the maintenance work after the heated area such as the muffler or the engine is fully cooled down.

If this instruction is ignored, there is a risk of getting burnt.

#### **CAUTION**

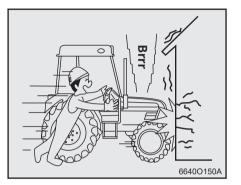
Stop and cool down the engine before fueling or lubricating;

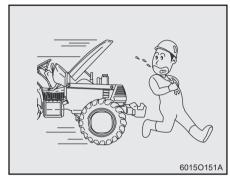
• Do not fill the fuel while the engine is running or machine is hot.

If this instruction is ignored, fuel can catch fire or lead to fatal injury with

severe burns.







#### **!** CAUTION

Be careful of high oil pressure;

 Make sure that the hydraulic coupling or the hose is not loose or damaged. Before separating the hydraulic coupling or the hose, eliminate the high pressure inside the hydraulic system by moving the control lever while engine is stopped.

If this instruction is ignored, the oil under high pressure may cause skin injury.

## **⚠** WARNING

Make sure that you are seated in the driver's seat with your seat belt fastened before starting engine;

 When starting the engine, make sure that you are seated in the driver's seat with your seat belt fastened and check the seat position and the safety of the tractor.

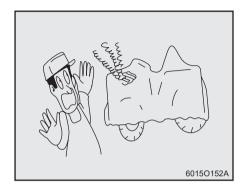
If this instruction is ignored, an unexpected accident may occur.

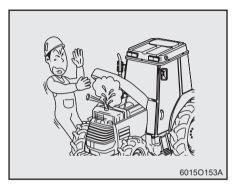
#### **CAUTION**

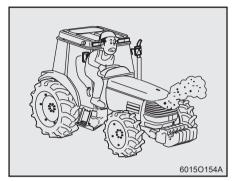
Stop the engine before maintenance;

 Stop the engine before maintenance such as checking, repairing or cleaning the machine.

If this instruction is ignored, there is a risk of injury.







Put tractor rain cover on only after tractor has cooled down;

 Put tractor rain cover on only after parts such as the engine and muffler have cooled down.

If this instruction is ignored, there is a risk of fire.

# **⚠ WARNING**

Do not open the radiator cap when the radiator is hot;

• Never open the radiator cap when the radiator is heated.

If this instruction is ignored, hot water may spurt, causing burns or damage.

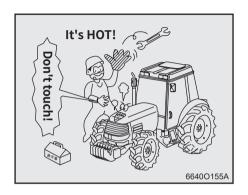
#### **№ WARNING**

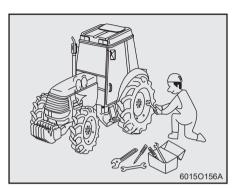
Remove dirt and debris from muffler and engine before operating;

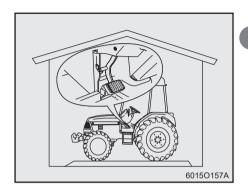
 Clean if there is dust, debris or fuel on the engine or muffler before operating the machine every day.

If this instruction is ignored, there is a risk of fire.

#### PRECAUTION FOR PROLONGED STORAGE







#### **CAUTION**

Be careful of hot muffler;

• During operation and right after the engine is turned off, the muffler is very hot. Avoid touching it.

If this instruction is ignored, you may get burnt.

## **CAUTION**

After working, immediately repair if necessary;

- Immediately repair or replace the faulty parts.
  - Tighten the loose bolt and nut right away.

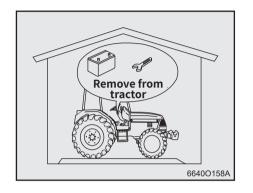
If this instruction is ignored, an unexpected accident may occur due to poor maintenance.

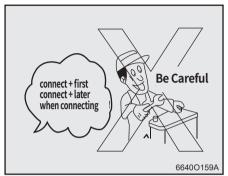
#### **CAUTION**

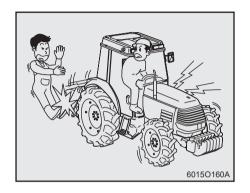
Disengage the clutch when storing the tractor for a long time;

• When storing the tractor for a long period of time, make sure to put the clutch pedal in the disengaging position.

If this instruction is ignored, the clutch disc can be stuck to the fly wheel after long period time.







## **↑** WARNING

Disconnect the Battery and the key when storing the tractor for a long period of time;

 When storing the tractor without use for a long period of time, park the machine on the leveled ground and clean each component, remove the battery and keep the key in a safe place.

If this instruction is ignored, battery power may be weakened and starting will be failed.

## **⚠** CAUTION

Observe correct procedures when installing or removing the battery;

 Connect the (+) terminal first when installing the battery, and disconnect the (-) terminal first when removing it.

If this instruction is ignored, there is a risk of burn or fire due to short circuit.

#### **⚠** WARNING

Confirm that the implement is down on the ground when starting the engine;

 When starting the engine, confirm that the control lever is on "Lowest" position.

If this instruction is ignored, implement may come down suddenly and cause an injury.

# Good Maintenance! 66400161A

#### **↑** WARNING

Maintenance periodically;

- After using tractor, visit your local dealer for maintenance, such as oil change and filters.
  - Contact the local dealer to discard the parts (battery, etc.) or waste materials.

If this instruction is ignored, there is a risk of accident due to poor maintenance.

#### **OTHER**

#### **⚠** WARNING

Do not adjust or repair following components. Consult your local TYM dealer for these repair;

- Injection capacity and timing of the engine fuel injection pump.
- Correction and repair of hydraulic system (safety valve, hydraulic pump, brake valve, PST cylinder, SCV valve).

There is a risk of accident or injury or machinery breakdown. Remember it may cause the warranty cancellation.

If this instruction is ignored, consult your local TYM dealer for those repair and adjustment.



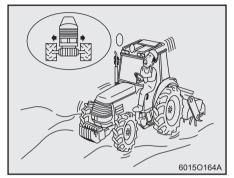
#### **CAUTION**

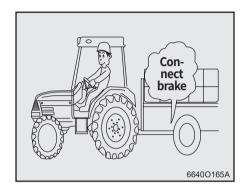
Do not modify the tractor;

 Use only the genuine parts or other approved parts. Do not modify the tractor.

If this instruction is ignored, there is a risk of accident or injury or machinery breakdown. Remember it may cause the warranty cancellation.







Pay attention when turning with implement;

 Depending on implements, the overall length may become very long. Pay particular attention to people or objects nearby when making a turn.

If this instruction is ignored, there is a risk of person injury or a collision of the implement.

## **⚠ WARNING**

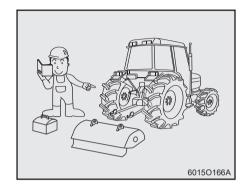
Move wheels to widest setting (width between left and right tires) when working slope or when towing; If this instruction is ignored, there is a risk of turning over.

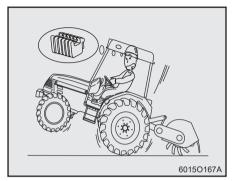
#### **⚠** WARNING

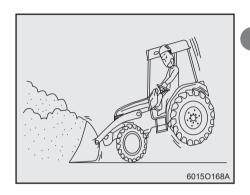
Use caution sign when towing a trailer;

 Link the brake of the trailer with the brake of the tractor. Do not shift gears when driving on a hill.

If this instruction is ignored, there is a risk of accident or injury.







## **↑** WARNING

Follow the instruction manual when engaging an implement;

 When engaging an implement to the tractor, follow the instruction manual for the implement.

If this instruction is ignored, there is a risk of personal injury or damage to the tractor.

## **↑** WARNING

Balance a heavy implement with weights;

 When engaging a heavy implement, load the weights on the front of tractor to keep the balance of the tractor.

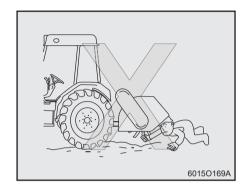
If this instruction is ignored, there is a risk of accident or injury due to loss of balance.

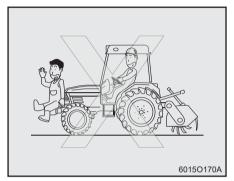
## **↑** WARNING

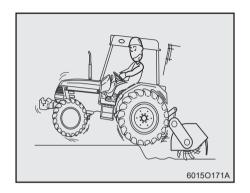
Pay attention to the balance between the front and rear side during the front-end-loader operation;

 During the front-end-loader operation, apply weights or implement to avoid loosing balance between the front and the rear side of tractor.

If this instruction is ignored, there is a risk of overturning accident due to loss of balance.







## **↑** WARNING

Do not get under or put your feet under the implement;

• Do not get under or put your feet under the implement.

If this instruction is ignored, the implement unit may fall down and there is a risk of injury.

## **⚠ WARNING**

Do not substitute balance weights with a person or anything else;

 Do not use a person or anything else in place of the balance weight.
 Use only genuine balance weight.

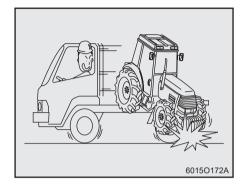
If this instruction is ignored, there is a risk of accident or injury.

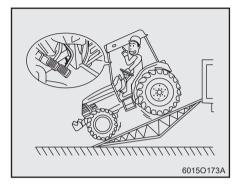
### **↑** WARNING

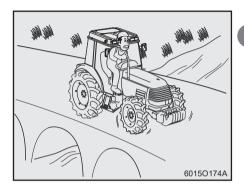
Be careful of unexpected movement when using the rotary tiller;

When working with the rotary tiller, put the tiller slowly on soft or rocky ground. The tractor may be pushed in an unexpected direction by the rotating force of the tiller.

If this instruction is ignored, there is a risk of accident or injury.







Properly secure tractor during transport;

When transporting the tractor, apply the parking brake with gear engaged and fasten the tractor to the truck securely using ropes or belts with sufficient strength.

If this instruction is ignored, There is a risk of accident that the tractor may fall off the truck.

#### **▲** DANGER

Interlock the brake pedals for both sides when loading or unloading the tractor;

 It is necessary to interlock the brake pedals for both sides when loading or unloading the tractor.

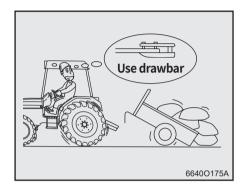
If this instruction is ignored, the tractor may overturn due to one-sided braking when the brake pedal is depressed in an emergency.

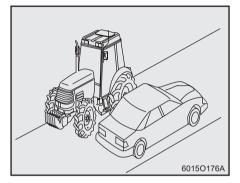
### **↑** WARNING

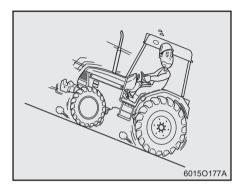
Release the differential gear lock when making a turn;

• Make sure to release the differential gear lock when making a turn.

If this instruction is ignored, the tractor may not turn to the intended direction and cause an accident.







Use the drawbar when towing;

 Make sure to use the drawbar when towing. Never tow anything with the top link or the lower links.

If this instruction is ignored, the tractor may turn over.

## **↑** WARNING

Pay attention to the shoulder of the road;

 When moving along the unpaved road with ditches or slanted sides, pay attention to the road shoulder.

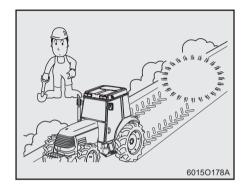
If this instruction is ignored, there is a risk of falling over.

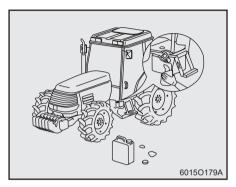
### **↑** WARNING

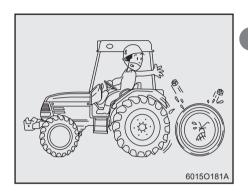
Be careful when driving on a hill;

 Be careful when driving on a hill.
 Do not disengage the clutch on the hill. Do not shift the main shift lever, range shift lever, or shuttle lever in [neutral] on the hill.

If this instruction is ignored, the tractor may roll backwards or fall causing accident or injury.







Turn off engine in a level area when leaving the tractor;

 When leaving the tractor, park the tractor on a level and safe area, turn off the engine, and apply the parking brake. Also, lower the implement on the ground.

If this instruction is ignored, the tractor may move and cause an accident.

## **⚠ WARNING**

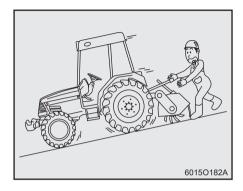
Remove spilled excess fuel after closing the fuel cap;

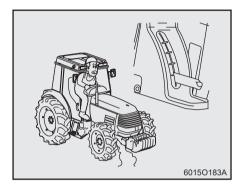
 After filling the fuel tank, close the fuel filler cap completely and wipe off the excess fuel thoroughly.

If this instruction is ignored, there is a risk of fire.

### **↑** WARNING

Be aware of the PTO RPM requirements for the implements; If this instruction is ignored, there is a risk of accident or injury.





## **№ WARNING**

Only engage or disengage implements on flat, level area:

Engage or disengage the implement on a flat and safe place.
 Supply proper lighting at all times and especially night.

#### [Otherwise]

There is a danger of accident.

#### **!** CAUTION

Engage the parking brake during warming up the engine;

If this instruction is ignored, the tractor may move and cause an accident or injury.

Part description

Label, Fan Warning

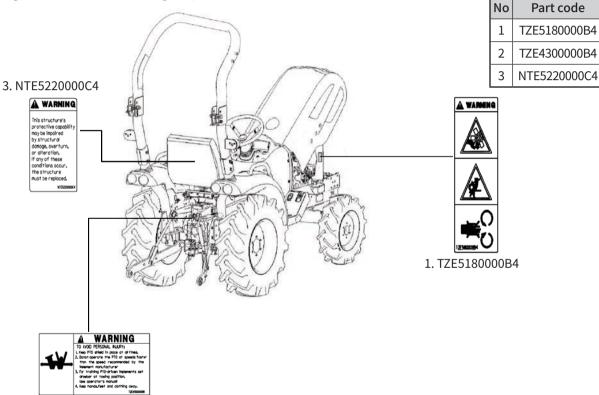
Label, Pto Caution

Label, Safety

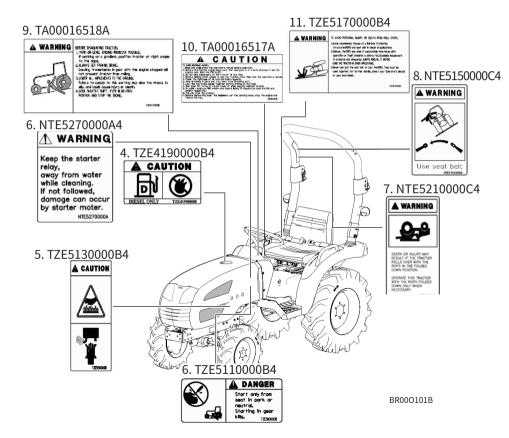
### **LOCATION OF SAFETY DECALS**

Safety decals are provided to ensure safe operation. Keep the safety decals clean at all times and protect them from dam-

age. In case of loss or damage, replace with a new decal.



2. TZE4300000B4 BR000102B



No	Part code	Part description
4	TZE4190000B4	Label, Filler Caution
5	TZE5130000B4	Label, Muffler
6	TZE5110000B4	Label, Start Caution
7	NTE5210000C4	Label, Pto
8	NTE5150000C4	Label, Drawbar
9	TA00016518A	Label, Safety
10	TA00016517A	Label, Safety
11	TZE5170000B4	Label, Rops Warning

# 2. ABOUT WARRANTY

WARRAN I Y	2-2
TROUBLE SHOOTING	2-2
REGARDING SUPPLYING SERVICE PARTS	2-3
REGARDING GENUINE PARTS AND FLUID	2-3

### WARRANTY

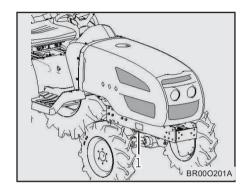
You will need the "Warranty paper work" when your tractor requires warranty service. Read it and keep in a safe place.

### **TROUBLE SHOOTING**

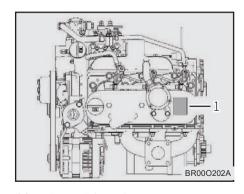
In case of mechanical trouble, refer to "Trouble shooting" on end of this manual. If the problem cannot be corrected, please contact your nearest authorized dealer.

# <Information you will need when contacting the dealer for service>

- Type of model and tractor serial number.
- In case of engine, the engine serial number.
- Circumstances of breakdown. (what kind of work, gear position, etc.)
- Amount of work done. (square footage or number of hours)
- Other information with as much detail as possible about the circumstance of the breakdown.



(1) Tractor Serial number.



(1) Engine Serial Number

# REGARDING SUPPLYING SERVICE PARTS

We supply the service parts in accordance with the separated quality assurance regulation.

Consult your local dealer for availability and pricing.

# REGARDING GENUINE PARTS AND FLUID



The **TYM** genuine parts and fluid are passed severe durability and performance test. Please use **TYM** genuine parts for your safety.

# **MEMO**

### F

# 3. SPECIFICATION

SPECIFICATIONS3	-2
TRAVEL SPEED3-	-5

# **SPECIFICATIONS**

ITEMS				2200	2500	2500h	2500L	2500hL
1. Drive system				4 Wheel Drive				
	Overall Length		in. (mm)	120.0 (3,056)			107.0 (2,722)	
	Overall Width		in. (mm)	44.3 (1,124)			53.9 (1,369)	
	Overall Height		in.(mm)	87.6 (2,225)			91.7 (2,330)	
2. Dimensions	Wheel Base		in.(mm)	59.2 (1,503)			65.7 (1,672)	
2. Diffierisions	Tread	Front	in.(mm)		33.6 (853)		44.9 (	1,142)
		Rear	in.(mm)		34.6 (880)		43.1 (	1,097)
	Ground Clearance		in.(mm)	12.9 (330)		12.9 (330) 16.0 (407)		(407)
	Weight		lbs (kg)	1,789 (812)	1,791 (813)	1,829 (830)	2,034 (923)	2,107 (956)

ITEMS			2200	2500	2500h	2500L	2500hL	REMARKS
	Model		A1100N2 A1100T2					
	Туре		Vertical 4 cycle. Water cooled, Diesel					
	Combustion System	1		:	Swirl Chambe	r		
	Aspiration	Natural			N,	/A		
	Engine Horsepower	HP (kW)		24 (17.9)				
3. Engine	Number. of Cylinders		3					
0g	Bore × Stroke in. (mm)		2.91 × 3.23 (74 × 82)					
	Displacement in <sup>3</sup> (cc)		64.56 (1,058) 71.7 (1,175)					
	Compression Ratio							
	Fuel Consumption gal/hp.hr							
	Type of Air Cleaner		Dry, Element					
	Fuel Tank Capacity gal (ℓ)		6.08 (23)					
4. Steering		Hydrostatic						
5. Clutch			Dry, Single Stage					
6. Battery			12 V					
7. Brake				Wet Disc				

ITEMS			2200	2500	2500h	2500L	2500hL	REMARKS
8. Transmission	Main Shifting			Constant Mesh (HST : Hydrostatic)				
9-1. PTO	Туре		Live P.T.O. (6 Spline shaft)					
9-1. P10	Speed		540 / 960 / Option: 2,500 (Mid)					
9-2. MID PTO	Туре		Live P.T.O. (14 Spline shaft)					
9-2. MID PTO	Speed rpm		2,500					<b>%@2,600</b>
	Туре		Position control					
	3 Point Hitch	Telescopic lower link / Telescopic stabilizers						
10. Hydraulic System	Category		Category I					
	Lift capacity at lift point lbs (kg)		1,499 (680)					
	Pump capacity	gal (ℓ)			7.7 (29)			%Per min

<sup>%</sup> Specifications are subject to change without notice. Contact your local TYM dealer for more information.

### **TRAVEL SPEED**

LEVEL		SHIFTING		2200 2500	2500h	
		MAIN	RANGE	2200, 2500	250011	
	1	1	L	0.68 (1.1)		
	2	2	L	1.18 (1.9)	4.16 (6.7)	
F	3	3	L	2.23 (3.6)		
Forward	4	1	Н	3.72 (6.0)		
	5	2	Н	6.58 (10.6)	13.35 (21.5)	
	6	3	Н	11.93 (19.2)		
Doverse	1	R	L	0.86 (1.4)	4.16 (6.7)	
Reverse	2	R	Н	4.66 (7.5)	13.35 (21.5)	
☞ Rated Engine r	₹ Rated Engine rpm: 2,600 rpm, Tire: agri 9.5-18 (SLR : 418 mm)					

 $<sup>\</sup>fint \%$  This specification will be changed without prior notice for improvement of quality.

<sup>%</sup> Theory speeds figured by rated engine rpm. (mile/hr)

※ mi/h (km/h)

I EVEI		SHIFTING		2500L	2500hL	
LEVEL		MAIN	RANGE	2500L	250011L	
	1	1	L	0.80 (1.0)		
	2	2	L	1.24 (2.0)	4.30 (7.0)	
Forward	3	3	L	2.29 (3.7)		
Forward	4	1	М	3.85 (6.2)		
	5	2	М	6.83 (11.0)	13.91 (22.4)	
	6	3	М	12.30 (19.9)		
Doverso	1	R	L	0.86 (1.4)	4.30 (7.0)	
Reverse	2	R	М	4.84 (7.8)	13.90 (22.4)	
☞ Rated Engine rpm: 2,600 rpm, Tire: agri: 11.2-20(476 mm)						

 $<sup>\</sup>ensuremath{\,\%\,}$  This specification will be changed without prior notice for improvement of quality.

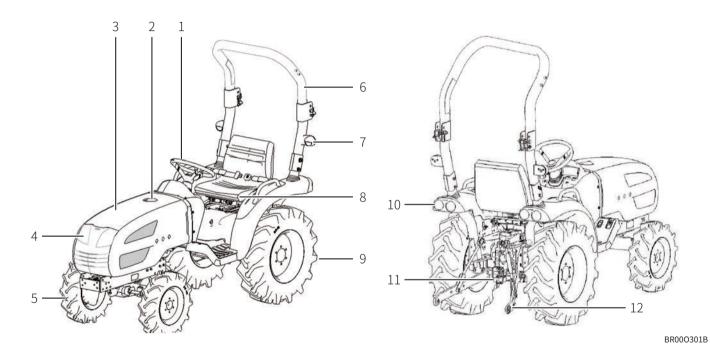
<sup>\*</sup> Theory speeds figured by rated engine rpm. (mile/hr)

# 4. OPERATION DESCRIPTION

<b>EXTERIOR VIEW 4-2</b>	PEDALS
SWITCHES AND LEVERS 4-4	CLUTCH PEDAL
MANNUTEV CONTECT	BRAKE PEDAL
MAIN KEY SWITCH4-4	DIFFERENTIAL LOCK PEDAL.
ACCELERATOR LEVER4-5	F-R HST DRIVE PEDAL
ACCELERATOR PEDAL4-5	CRUISE CONTROL UNIT
TURN SIGNAL S/W4-6	
HEAD LAMP & HORN S/W4-6	LEVER OPERATION (R)
HAZARD LAMP SWITCH4-6	MAIN GEAR SHIFT LEVER
INSTRUMENT PANEL 4-7	POSITION CONTROL LEVER .
	MFWD LEVER
TACHOMETER4-7	
HOUR METER4-8	LEVER OPERATION (L)
PTO POSITION4-8	2400 RANGE SHIFT LEVER
PRE-HEAT LAMP4-8	2510 RANGE SHIFT LEVER
BATTERY CHARGE LAMP4-9	PTO SHIFT LEVER
ENGINE OIL PRESSURE LAMP4-9	
FUEL GAUGE4-9	FLOW CONTROL VALVE
WATER TEMP GAUGE4-10	OTHERS
HEAD LAMP (HIGH BEAM)4-10	
,	SEAT BELT
	TAU 1 AND

4-11
4-12
4-12
4-13
4-13
4-14
4-14
4-15
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4-19
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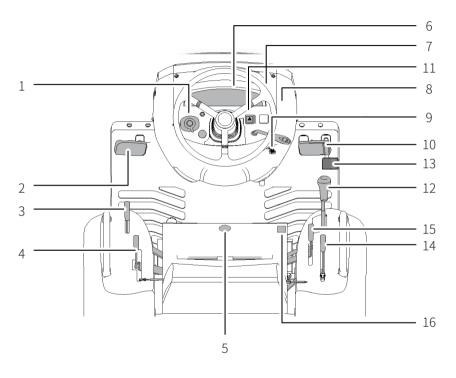
### **EXTERIOR VIEW**



- (1) Steering Wheel
- (2) Fuel Tank
- (3) Hood
- (4) Head Lamp

- (5) Front Tire
- (6) ROPS
- (7) Turn Signal Lamp
- (8) Seat

- (9) Rear Tire
- (10) Combination Lamp
- (11) Drawbar
- (12) Lower Link



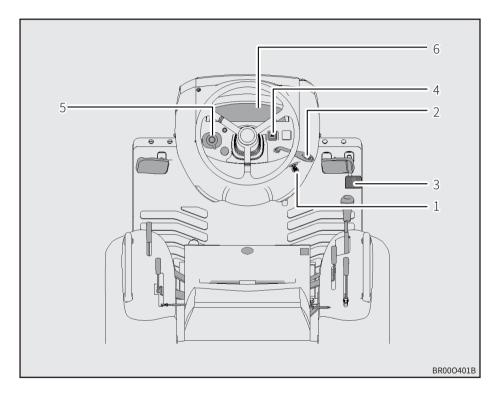
BR000302B

- (1) Combination S/W
- (2) Clutch Pedal
- (3) Range Shift Lever
- (4) PTO Lever

- (5) Flow Control Valve (6) Instrument Panel
- (7) Steering Wheel
- (8) Throttle Lever

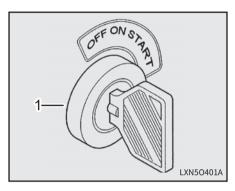
- (9) Main Key Switch (10) Brake Pedal
- (11) Hazard Lamp S/W
- (12) Main Shift Lever
- (13) Accelerator Pedal
- (14) Position Lever
- (15) MFWD Lever
- (16) Differential Lock Pedal

### **SWITCHES AND LEVERS**



- (1) Main Key Switch
- (2) Throttle Lever
- (3) Accelerator Pedal
- (4) Hazard Lamp Switch
- (5) Combination Switch
- (6) Instrument Panel

### MAIN KEY SWITCH



(1) Main Key Switch

It is used to start the engine.

• "OFF"

The engine is stopped, and current does no flow. (The key can be taken out)

• "ON"

Electric current flows to the switched of all electrical parts. If the engine is stopped, the engine oil pressure lamp and the battery charge pilot lamp are lit. Depending on the outside temperature, the thermostat pilot lamp may also be lit.

### • "START"

Starting motor turns and the engine is started.

Once the engine is started, take your hand off the key.

The key will return to the "ON" position automatically and the engine will keep running.

Turn engine off before performing any maintenance on tractor.

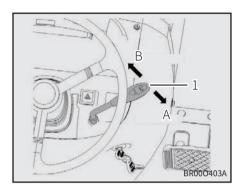
## **A** CAUTION

 When the tractor is not in use, take out the key and keep it in a safe place.

### [Otherwise]

Children may start the tractor and cause an accident.

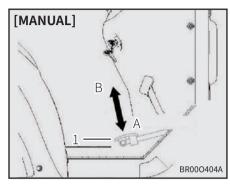
### **ACCELERATOR LEVER**



- (1) Throttle Lever (A) Increase
- (B) Decrease

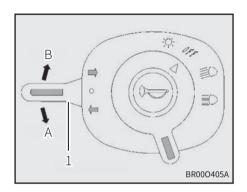
It is used to make the engine run faster or slower. It is also used when working at a constant speed.

### **ACCELERATOR PEDAL**



- (1) Accelerator Pedal (A) Increase (B) Decrease
- It is used to make the engine run faster or slower. It is usually used when driving on a road. (Manual transmission only)

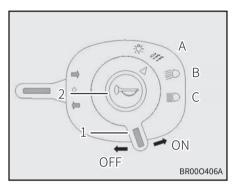
### **TURN SIGNAL S/W**



(1) Turn Signal Switch (A) Left (B) Right

With the key switch in the "ON" position, turn the direction indicator switch to the right to turn on the direction indicator lamp in the right side, and turn the indicator switch to the left to turn on the lamp on the left.

### **HEAD LAMP & HORN S/W**



- (1) Head Lamp Switch (2) (A) OFF (B) (C) High Beam
  - h (2) Horn Switch (B) Low beam

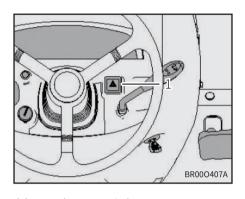
### ► HEAD LAMP S/W

With the main switch in the "ON" position, turn the light switch one click to the right for high beam and two clicks to the right for low beam.

### ►HORN S/W

With the main switch in the "ON" position, press the horn button to sound the horn.

### HAZARD LAMP SWITCH

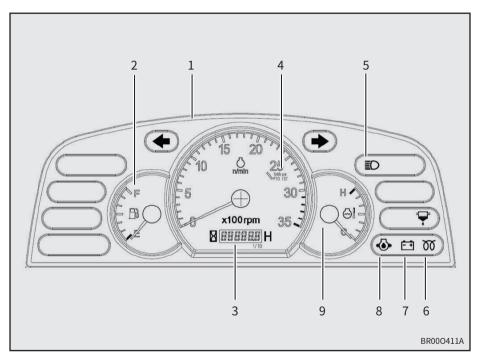


(1) Hazard Lamp Switch

Used to prevent accidents in an emergency. Activate by pressing switch to warn other vehicles.

Hazard lamp operates regardless of main switch and every turn signal lamp will cease at once. Press once again to cancel.

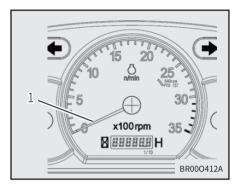
### **INSTRUMENT PANEL**



- (1) Meter Panel
- (2) Fuel Gauge
- (3) Hour Meter
- (4) PTO Position
- (5) Head lamp High beam

- (6) Pre-heat Lamp
- (7) Battery Charge Lamp
- (8) Engine oil pressure lamp
- (9) Water Temp Gauge

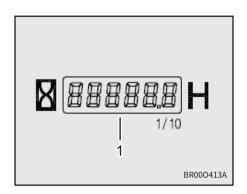
### **TACHOMETER**



(1) Engine Rpm Indicator

The needle indicates the number of engine RPM.

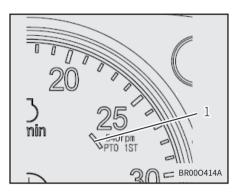
### **HOUR METER**



(1) Engine Hour Meter

It indicates the tractor's running hours. By multiplying the digit in the far right position by 6, you will get the time in minute.

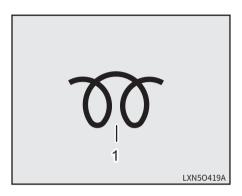
### **PTO POSITION**



(1) PTO Position

It Indicates the position 2,600 rpm where PTO revolutions achieve 540, and 1,000 rpm. And 1,700 rpm position where PTO revolutions achieve 540E.

### PRE-HEAT LAMP



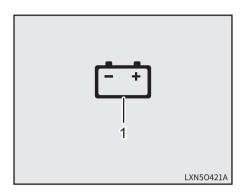
(1) PRE-HEAT Lamp

Lamp will light on/off depending on temperature of engine coolant when main key switch is turned on.

Lamp will be turned off when heater coil is heated. Start engine after this lamp is turned off.

It is difficult to start engine in winter when starting engine before warm up lamp is turned off. It also causes early discharge of battery.

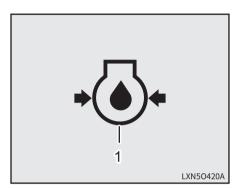
### **BATTERY CHARGE LAMP**



(1) Battery Charge Lamp

It will be turned on when the key switch is put into the "ON" position, and will be turned off when the battery starts being charged after engine is started and the engine revolution increases. The battery will not be charged with the engine below 1,000 rpm. (The rpm should be 1,500 rpm or higher)

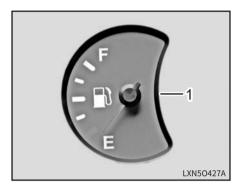
### **ENGINE OIL PRESSURE LAMP**



(1) Engine Oil Pressure Lamp

Lamp will come on when the ignition switch is put into the "ON" position. It will turn off when the engine is started. If this lamp comes on while the engine is running, it indicates a problem in the engine oil system. Stop the engine immediately and check for problems.

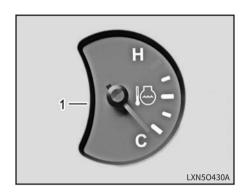
### **FUEL GAUGE**



(1) Fuel Gaguge

The needle indicates the quantity of fuel remaining in the tank. If the needle is in the red zone, refill immediately.

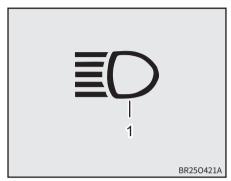
### **WATER TEMP GAUGE**



(1) Water Temp Gauge

The needle indicates the temperature of the engine coolant during running. If the needle is in the red zone, stop running the engine and check for problems.

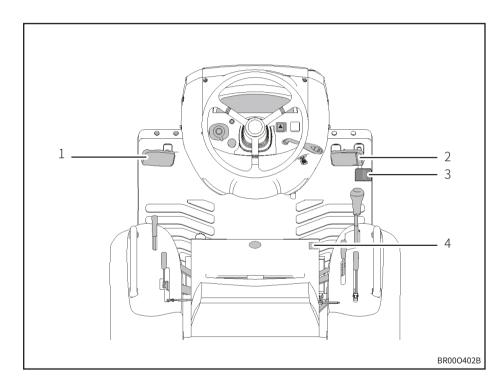
### **HEAD LAMP (HIGH BEAM)**



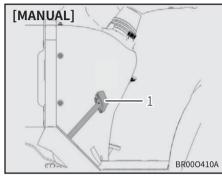
(1) High Beam Head Lamp

Indicates the head lamps beam's position. It will come on when the head lamps are on High beam. On the contrary, if the head lamps are in the low beam, this indicator will not be lit.

### **PEDALS**



### **CLUTCH PEDAL**



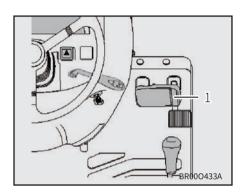
(1) Clutch Pedal

It is used to transmit the engine power. (Manual transmission only)

- (1) Clutch Pedal
- (2) Brake Pedal

- (3) Accelerator Pedal
- (4) Differential Lock Pedal

### **BRAKE PEDAL**



(1) Brake Pedal

Brake pedals are independent of each other and can be used for making a small turn on the pavement. Depressing the brake pedal on the side to which to make a turn, the rear wheel on that side is stopped and the tractor can make a small turn.

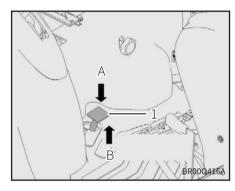
### WARNING

 Make sure to connect the brake pedals with the brake pedal coupler when driving on a road.

### [Otherwise]

There is a risk of abrupt turning or overturning due to one-sided braking.

### DIFFERENTIAL LOCK PEDAL



- (1) Differential Lock Pedal
- (A) Releasing the pedal, disengage the diff lock (B) Depressing the pedal, engage the diff lock

It is used to transmit the same power to both rear wheels and serves to prevent slipping when one of the rear wheels is idling.

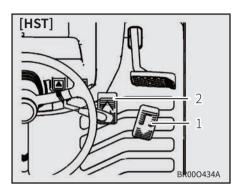
### WARNING

 Release the differential gear lock when making a turn.

### [Otherwise]

The tractor may not turn in the direction you want and cause an accident.

### F-R HST DRIVE PEDAL



(1) Backward HST Pedal (2) Forward HST Pedal

### <Forward Pedal>

Depress the forward Pedal with your foot to move Forward

### <Backward Pedal>

Depress the backward Pedal with your foot to move backward.

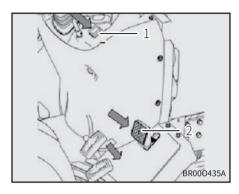


### **▲** WARNING

To avoid personal injury:

• Do not operate if tractor moves on level ground with foot off Hst pedal.

### **CRUISE CONTROL UNIT**



- (1) Cruise Switch
- (2) Brake Pedal

The Cruise Control unit is designed for tractor operating efficiency and operator comfort. This unit will provide a constant forward operating speed by electronically holding the speed control pedal at a selected position.

### <To engage Cruise control Unit>

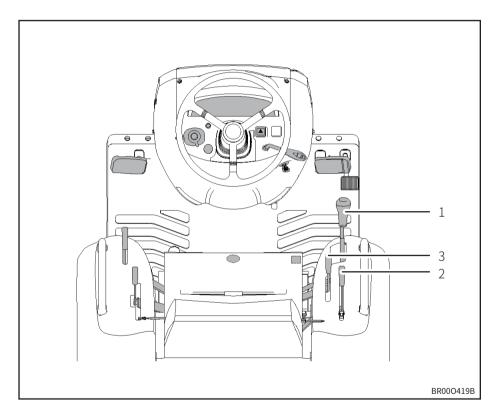
- 1. Accelerate speed to desired level using Forward Pedal, and push the Cruise switch: Green lamp "ON"
- 2. Release Forward Pedal and desired speed will be maintained.

### <To disengage Cruise control Unit>

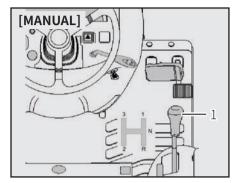
- 1. Push the Cruise switch: Green lamp "Off".
- 2. Depress both Brake Pedal.

Cruise Control Unit do not operate in reverse.

### LEVER OPERATION (R)



### MAIN GEAR SHIFT LEVER



(1) Main Gear Shift Lever

The gear shifts in four levels. When shifting the gears depress the clutch fully. (Manual transmission only)

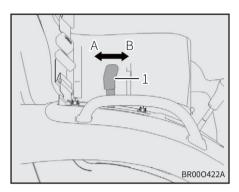
### **A** CAUTION

• Do not shift while driving.

[Otherwise] The gear may be damaged.

(1) Main Gear Shift Lever

### **POSITION CONTROL LEVER**



(1) Position Control Lever (A) Raise (B) Lower

When lowering the implement, set the position control lever, and the implement will go down to the set position.

It is used to keep the implement constantly at a certain position. When the lift lamp is on, the implement cannot be lowered with position control lever. A stopper is used to fix the position control lever in the "UP" position while driving on a road.

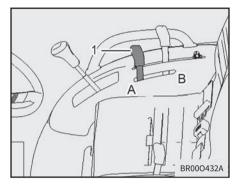
### WARNING

Confirm that no one or a foot is under the implement before operating the system.

### [Otherwise]

There is a risk of injury.

### MFWD LEVER



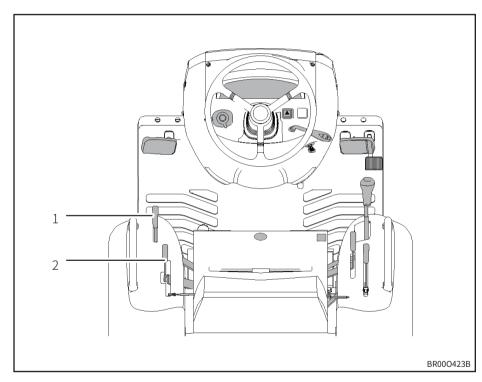
- (1) MFWD Lever (A) Connect
- (B) Disconnect

It is used to shift between 2-wheel drive and 4 wheel drive. Depress clutch pedal or stop machine when shifting the lever.



Do not shift while driving.
 [Otherwise] The gear may be damaged.

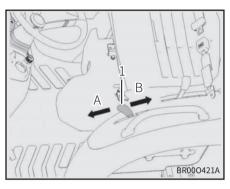
### LEVER OPERATION (L)



(1) Range Gear Shift Lever

(2) PTO Shift Lever

### 2400 RANGE SHIFT LEVER



(1) 2400 Range Shift Lever (A) High (B) Low

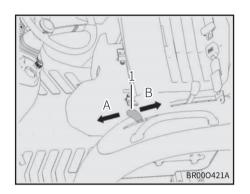
The range gear is shifted in three stages, in combination with the main gear shifting. When shifting the range gear, depress clutch fully.

### **CAUTION**

• Do not shift while driving.

[Otherwise] The gear may be damaged.

### 2510 RANGE SHIFT LEVER



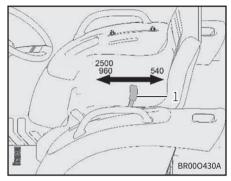
(1) 2510 Range Shift Lever (A) High, Middle (B) Low

The range gear is shifted in four stages, in combination with the main gear shifting. When shifting the range gear, depress clutch fully.

### **CAUTION**

• Do not shift while driving. [Otherwise] The gear may be damaged.

### **PTO SHIFT LEVER**



(1) PTO Shift Lever

The revolution of the PTO shaft can be shifted in two stages. (1st Rear 540 rpm : 2nd Rear 960 rpm - Mid 2,500 rpm) When shifting level, press clutch pedal deeply.

### **CAUTION**

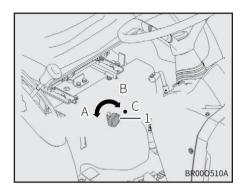
• Observe the PTO speed designated on the work unit.

[Otherwise] the work unit may be damaged and cause an accident.

### **CAUTION**

• Do not shift while driving. [Otherwise] The gear may be damaged.

### FLOW CONTROL VALVE



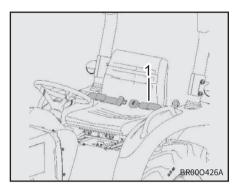
- (1) Flow Control Valve (A) Fast (B) Slow
- (A) Fast (C) Stop

It is used to regulate the lowering speed of the work unit (slow return function). Also, if you wind the valve fully to the

right, the hydraulic pressure to the de-

vice raising the work unit is stopped.

### OTHERS SEAT BELT



(1) Seat Belt

### **WARNING**

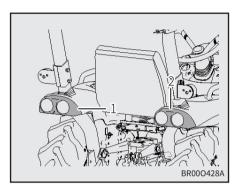
### [Otherwise]

There is a risk of death or injury if the tractor turns over. Adjust the seat to the driver and keep the upper body upright. Wrap the seat belt around the waist and insert it into the buckle until the clicking sound is heard. When releasing the seat belt, use the "PRESS" button.

### **WARNING**

- Do not wear the seat belt when the safety frame is folded down. With the frame folded down, it does not provide safety.
- When operating the tractor, make sure to keep the safety frame in the upright position and wear the seat belt.

### **TAIL LAMP**

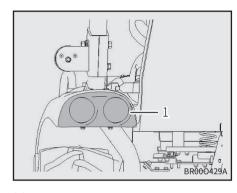


(1) Tail Lamp (L)

(2) Tail Lamp (R)

It is connected with the head lamp and is turned on when the head lamp is turned on.

### **BRAKE LAMP**



(1) Brake Lamp

It is turned on when the brake pedal is depressed.

# **MEMO**

# **5. OPERATION & WORK**

DAILY INSPECTION BEFORE STARTING	5-3
PRE-OPERATION CHECK	5-3
RUNNING-IN PERIOD	5-10
STARTING / STOPPING THE ENGINE	5-11
TO START THE ENGINE TO STOP THE ENGINE	
TO RAISE OR LOWER THE IMPLEMENT	5-14
ADJUSTING THE LOWERING SPEED OF TH	HE IMPLE
MENT	5-15
DRIVING ON THE ROAD	
	5-155-165-175-175-18

ATTACHMENT OF IMPLEMENT	5-2
ATTACHMENT POSITION	5-2
INSTALLATION OF PTO DRIVEN IMPLEMENT	5-2
PRECAUTIONS FOR CONNECTING THE IMPLEMENT	5-2
AUX. HYDRAULICS	5-2
PRECAUTIONS FOR HANDLING IMPLEMENT	5-2
ROTAVATOR	5-2
EFFECTIVE PLOWING PATTERN	5-2
ADJUSTING WHEEL TREAD	5-29
TIRES, WHEELS AND BALLAST	5-3
TIRE TYPE	
WHEEL AND AXLE	5-3
POWER STEERING	5-30
TOWING INSTRUCTIONS	5-3
PTO SPECIFICATIONS & PRECAUTIONS	
LOADER OPERATION	
CARRYING THE LOAD	5.2

# **5. OPERATION & WORK**

HANDLING	LARGE, HEAVY OBJECT	S5-34
ROPS FOLI	DING METHOD	5-35
HOW TO	FOLD DOWN THE ROPS	5-35
HOW TO	STAND UP THE ROPS	5-36

# DAILY INSPECTION BEFORE STARTING

- 1. Check the engine oil level.
  - After wiping out the dipstick, insert it fully and then withdraw it. Oil should be between the two marks on dipstick. Do not operate the engine if oil level is below minimum mark. If below, add the corresponding grade oil according to the season through the filler.
- 2. Feed grease to all greasing points indicated below every 10 hours when working in damp and muddy conditions.
  - Front axle pin
  - Steering shaft and Cylinder end
  - Tie rod both ends
  - Front axle supporter
- After cleaning the machine with highly pressurized water, lubricate the indicated points with grease below if necessary.
  - Bonnet latch
  - Seat sliding rail

### **PRE-OPERATION CHECK**

### **A** DANGER

- Do not provide illumination with a lit cigarette or a lighter when fueling.
- Never fill the fuel tank while the engine is running or hot.
- After filling the fuel tank, close the fuel filler cap completely and wipe off the excess fuel thoroughly.
- If the fuel hoses are damaged, fuel will leak. Make sure that you check for any leakage.

## **MARNING**

 Perform the maintenance on a flat and safe location that will keep the tractor in place and will not cause a risk to people passing by. Before carrying out the maintenance, place blocks at the front tires to prevent movement.

### [Otherwise]

An unexpected accident may occur, such as overturning of the tractor.

When going under the implement, fully close the slow/stop valve.

### [Otherwise]

There is a risk of injury due to implement falling.

### **A** CAUTION

- Stop the engine during checking, maintenance, or repair
- Carry out the maintenance work after heated area such as the muffler or the engine have fully cooled down.

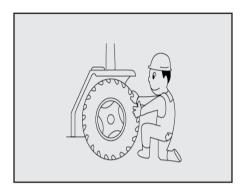
### [Otherwise]

There is risk of burn.

 After detaching the covers for checking or maintenance, make sure to put them back in their place.

### [Otherwise]

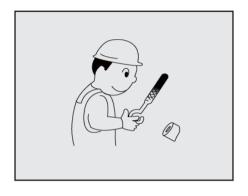
There is a risk that you may get entangled in the tractor or get injured.



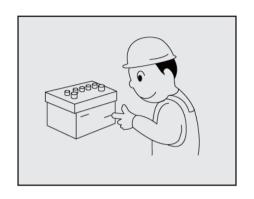
To ensure a safe and comfortable operation, please carry out the routine checkup everyday before starting work. Correct any problem immediately, and also check for problems after work. This checking should be done in the following sequence.

- 1. Check the suspicious parts of the previous day.
  - Check the parts that you thought were not normal during the work of previous day.

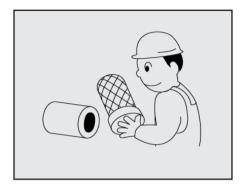
- 2. Check around the tractor.
  - Deformation, damage or stains.
  - Tire pressure and abrasion.
  - Damage to the tractor, or loosened bolts.
  - Loosening of wheel bolts.
  - Fuel quantity, fuel leaks, or damage to the fuel hose.

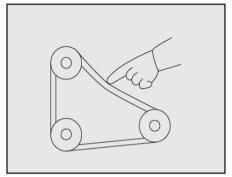


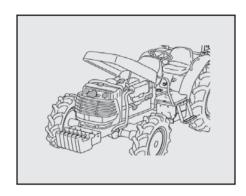




- 3. Open the engine hood.
  - Engine oil level, contamination, or leakage.
- Engine coolant level, leakage, or damage to the hose.
- Battery solution level.



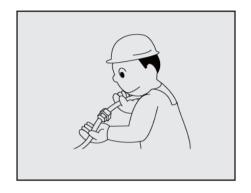


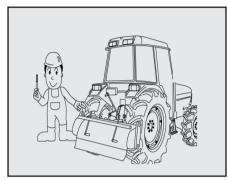


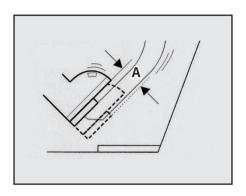
• Air cleaner.

• Fan belt tension, damage.

• Dust or straw on the radiator grill or the engine.



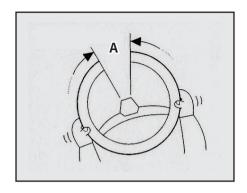


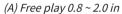


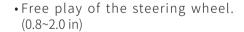
(A) Free play 0.2 ~ 0.4 in

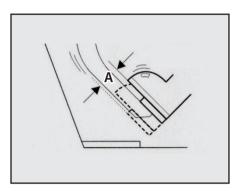
- Damage to the coating of the cables, or loosening of the contacts.
- 4. Check around the implement.
  - Condition of the locking pin of the universal joint inserted in the PTO shaft.
  - Condition of pins in each part.
  - Loosening of the bolts holding the blade.
  - Quantity of oil in each part. For more details, please refer to the implement manufacturer's instructions.

- 5. Check on the driver seat.
  - Operational condition and free play of the brake. (0.2~0.4 in.)

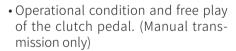






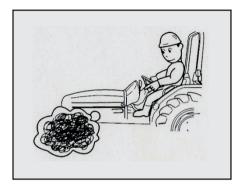


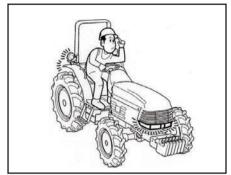
(A) Free play 1.0 ~ 1.4 in





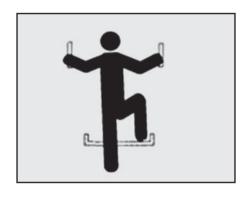
- 6. Start the engine.
  - Abnormal noise from the engine.





• Color of the exhaust gas.

• Operation of lamps and gauges



2. Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease or oil. Never jump when exiting machine. Never mount or dismount a moving machine

### **DANGER**

• Getting off the tractor, make the implement descend.

### [Otherwise]

The implement descends itself, and then causes some unexpected accident.

### **▶** Boarding and Leaving The Tractor

Use Steps and Hand-holds Correctly

 Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps and handrails. Never use machine controls as hand-holds.

### **RUNNING-IN PERIOD**

### **♠** IMPORTANT

 Always keep wheel bolts tightened to prevent any accident. Confirm that the wheel bolts are tight before operation. Check wheel bolt torque at least twice within the first 10 hours of operation, check it periodically at every 50 hours thereafter. Change the oil and filter after first 50 hours of operation.

### ▶ Within first 10 hours of operation

- Inspect daily or every 10 hours
- Tighten the wheel bolts

### ► After first 50 hours of operation

- Tighten the wheel, disc and hub bolts
- Check the alternator and fan belt tension as well as air inlet
- Tighten the cooling system's hose and clamp
- Perform the scheduled 50-hour maintenance
- Change the transmission/hydraulic oil and oil filter element
- Change the engine oil and filter
- Change the front axle fluid

# STARTING / STOPPING THE ENGINE

### **A** DANGER

 When starting the engine, make sure that you are seated in the driver's seat and check position of the levers and the safety around the tractor.

### [Otherwise]

There is a risk of injury.

 Do not start the engine in an enclosed space. You must start the engine outside of building. If you should have to start the engine inside a building, make sure that the space is well ventilated.

### [Otherwise]

The exhaust gas can cause intoxication and can lead to fatal consequences.

### **A** CAUTION

 Make sure to carry out checking and maintenance before and after the use of the tractor, particularly the operating devices such as the clutch and the brake lever.

### [Otherwise]

There is a risk of injury or machinery breakdown. Engage the parking brake during warming-up. Otherwise, the tractor may move and cause an accident.

 Don't crank engine unless hitch control lever is in the lowest position.

### [Otherwise]

Implement might rise quickly and there is a risk of injury or machinery breakdown. Check the engine operation carefully.

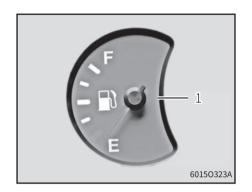
# ♠ IMPORTANT

- The engine is tuned or set for normal use. In case of a new tractor, especially carry out inspection and check within first 100 hours.
- Be sure to warm up the engine. Inspect the battery charge warning lamp, oil pressure warning lamp and engine coolant temperature gauge.
- Avoid any unnecessary engine idling.
- Frequently check the engine oil, coolant, transmission fluid and front axle oil levels. Also, inspect for leakage of those fluids.

### NOTE

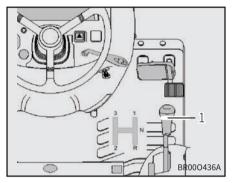
 Make sure to add the corresponding grade oil for the season. Use only genuine oil specified by TYM.

### TO START THE ENGINE



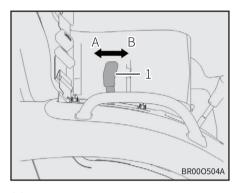
(1) Fuel Gauge

- 1. Check fuel.
  - Check if there is enough fuel by observing fuel gauge.



(1) Main Shift Lever

2. Put the main shift lever and PTO lever into "NEUTRAL" position.



(1) Position Control Lever (A) Raise (B) Lower

3. Put the position control lever into the "lowest" position.

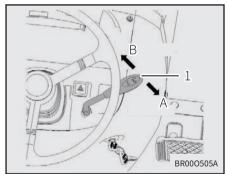
### **WARNING**

• Don't crank engine unless position control lever is in the lowest position.

### [Otherwise]

Implement might rise quickly and there is a risk of injury or machinery breakdown.

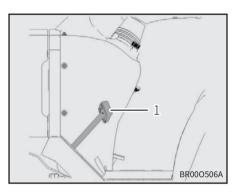




(1) Throttle Lever (A) Increase

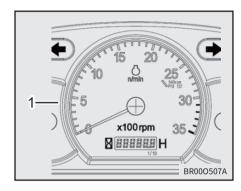
(B) Decrease

4. Put the acceleration lever to Min a turn ignition switch to "ON" position.



(1) Clutch Pedal

- 5. After the pre-heat lamp has turned off, depress the clutch pedal fully and turn the ignition switch to START.
- 6. Once the engine has started, take your hand off the ignition switch.



(1) Tachometer

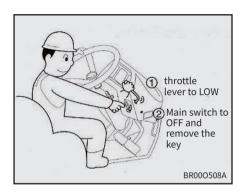
7. Increase the engine to about 1,500 rpm and warm it up for about five minutes without a load.

# **A** CAUTION

 Never put your feet on the clutch pedal during driving or working.
 [Otherwise]

It may cause an accident or quick wear of the clutch disks.

### TO STOP THE ENGINE



- 1. Put the throttle lever on LOW, and turn the main switch to "OFF".
- 2. Put shuttle lever, main gearshift lever and PTO shift lever to "N". put PTO ON/OFF switch in to the "OFF" position and front wheel lever to the "OFF"
- 3. Put the position control lever on "DOWN"

### CAUTION

- When stopping the engine, never stop it with the reducer lever.
- After stopping the engine, make sure to apply the parking brake.

### **NOTE**

• For warming-up operation, strongly step on the brake pedal and pull your parking brake.

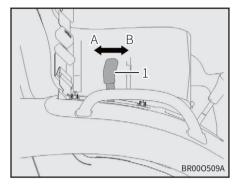
### WARNING

• When leaving the tractor, park the tractor in a flat and safe place, put the shuttle lever and the main shift lever to "N", and block the tires.

### [Otherwise]

The tractor may move and cause an accident. Always set the parking brake.

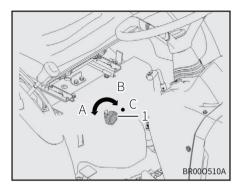
### TO RAISE OR LOWER THE **IMPLEMENT**



(1) Position Control Lever (A) Lower (B) Raise

Move the position control lever forward or backward to lower or raise the implement.

### ADJUSTING THE LOWERING SPEED OF THE IMPLEMENT



- (1) Flow Control Valve
- (A) Fast

(B) Slow

(C) Stop

For adjusting the lowering speed, turn the hydraulic flow control valve (A) to the left for faster movement or to the right for slower movement. Turning the valve fully to the right will block the hydraulic pressure and will cause the implement to stop.

### WARNING

• Do not work under or put a foot under the implement.

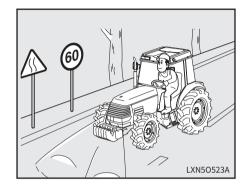
### [Otherwise]

The implement may fall and cause an injury.

### **CAUTION**

• When driving on a road, leave the hydraulic stop/slow return valve open and lock the position control lever into SHALLOW position.

### **DRIVING ON THE ROAD**



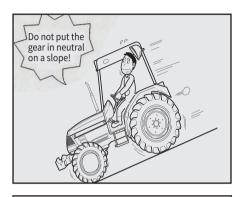
# **▲** WARNING

- When driving on a road or crossing a dike, make sure to connect the brake pedals. Otherwise, the tractor may turn abruptly or turn over due to one-sided braking.
- Observe the traffic regulations when driving on the road. Otherwise, you may be involved in an accident.

### DRIVING ON THE SLOPE

### **▲** WARNING

- This tractor is designed to accommodate only one person. Do not allow anyone on the tractor other than the driver. Otherwise, you will be exposed to a risk of accident.
- Put the PTO lever into "N" and connect the brake pedals.
- When making a turn, turn on the direction indicator lamp to inform other vehicles of your intention.
- Monitor the vehicles coming from behind through the rear view mirror and do not hinder other vehicles from passing you.
- Pay particular cautions to narrow farm roads, slopes, and grassy shoulders, and reduce the speed.
- Put the position control lever to UP and lock it with the stopper. Otherwise, you will be exposed to a risk of an accident.



### WARNING

- Select a proper speed, and do not shift the gear.
- Do not park on a slope. Otherwise, the tractor may slip or overturn and cause an accident.
- Reduce speed and pay special attention to the speed.

### **▲** WARNING

- Do not depress the clutch pedal when driving on a slope. The tractor may slide down and lead to a serious situation.
- When starting the tractor upwards on a slope, start slowly in low gear with low engine rpm. Otherwise, the front of the tractor may be lifted and cause a very dangerous situation.
- You may shift the gear when you are no longer on the slope. If you stop on a slope, apply the parking brake. Otherwise, you may be exposed to a risk of accident.

### ENTERING AND LEAVING THE **PAVEMENT**



Enter or leave the pavement in a perpendicular direction. When climbing onto the pavement, lower the implement to achieve a lower center of gravity. Once all wheels of the tractor are on the pavement, raise the implement.

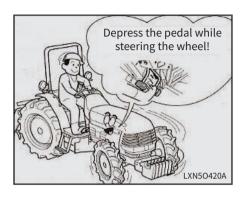
### WARNING

- Make sure to connect the brake pedal. Otherwise, the tractor may turnover due to one-sided braking.
- When you cross a dike or raised ground to enter or leave the pavement, use loading ramps with sufficient strength, and lower the implement to achieve a lower center of gravity.
- Drive backward when climbing up a steep slope, and drive forward when climbing down.

### **NOTE**

• Enter or leave the pavement in a perpendicular direction. When climbing onto the pavement, lower the implement to achieve a lower center of gravity. Once all wheels of the tractor are on the pavement, raise the implement.

### TURNING ON THE PAVEMENT



When making a turn, reduce the engine rpm and make a slow turn. When making a turn on the pavement, remove the connector of the brake pedals. Depress the brake pedal on the side to which to make a turn, while steering the wheel, this will allow the tractor to make the turn without moving ahead. Make sure to keep the implement in the up position when making a turn.

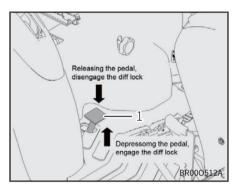
### DIFFERENTIAL LOCK

### **▲** WARNING

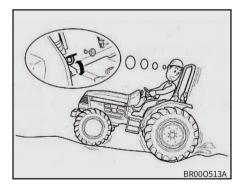
 Make sure to release the differential gear lock before making a turn.

### [Otherwise]

The tractor will not turn in the intended direction. It may cause an accident.



(1) Differential Lock Pedal



Depressing the differential lock pedal will make both rear wheels roll at the same speed. Releasing the pedal will automatically unlock the differential.

### **▲** WARNING

 Make sure to release the differential lock when making a turn.

### [Otherwise]

The tractor will not turn in the intended direction and may cause an accident.

### **A** CAUTION

• Never lock the differential when driving on a road.

### [Otherwise]

Driving will be unstable and the tractor may cause an accident.

### TRACTOR LOADING /UNLOADING

### **A** CAUTION

- When locking the differential gear, reduce the engine rpm.
- If the differential gear cannot be unlocked, disengage the clutch or depress the brake pedal lightly.
- Keep your feet away from the differential gear lock pedal except when you have it depressed.
- Don't use the differential gear lock with the Creep mode.

### **DANGER**

- Fix the direction so that the tractor will not have to modify its direction on the loading bridge, and proceed at the lowest speed.
- Never depress the clutch pedal to change direction or stop.

### [Otherwise]

There is a danger that the tractor may turn over.

### **WARNING**

 Loading and unloading must be done on a flat and safe place, with the engine turned off and the parking brake engaged. The loading ramp must be non-slippery and have sufficient strength, length, and width for the tractor. To avoid slipping of the loading ramp, latch it securely onto the truck. Move the tractor backward when loading, and forward when unloading. Fasten the tractor to the truck securely with rope.

### [Otherwise]

The tractor may fall off the truck and cause an accident.

### **STOPPING**

- 1. Stop the tractor with the brake pedal.
- 2. Put the main shift lever to the neutral position.
- 3. Put the shuttle lever to the neutral position.
- 4. Put all SCV levers to the neutral position.
- 5. Set the PTO switch in the OFF position.
- 6. Lower all implements on the ground.
- 7. Push the hand throttle lever back slowly to decelerate the engine and keep the engine for 1 2 minutes of unloaded idling.
- 8. Make sure the parking brake is applied.
- 9. Turn the main switch to the OFF position to stop the engine.

### **!** CAUTION

 When leaving the tractor, put the shuttle lever into the neutral position. If not, the tractor may move even though the engine is stopped.

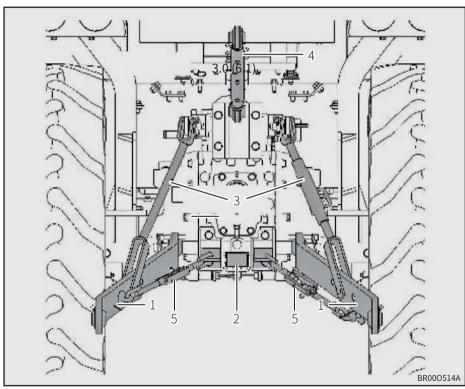
# **♦** IMPORTANT

- The tractor needs to be stationary before making a shift. If the parking brake is applied while the tractor is moving, the transmission can be damaged.
- Each part of the engine is cooled down by the engine oil. If the hot engine is suddenly stopped, its high temperature or insufficient lubricant can cause damage to the related parts.

### **⚠** CAUTION

 Remove the ignition key before leaving the tractor to prevent its use by an unqualified person.

# ATTACHMENT OF IMPLEMENT ATTACHMENT POSITION



- (1) Lower Link (3) Lift Li
- (2) Draw Bar

(3) Lift Link (4) Top Link (5) Check Bar

- 1. Attach the lower link to the link hook and insert pin into hook.
- Connect Check chain to bracket & Lift link mounting hole and adjust length.
- \* Refer to instruction of implement for adjusting swing clearance.

### **!** CAUTION

Select an implement to match the tractor horse power;

The tractor horse power should correspond with the size of an implement. If the power level of tractor is exceeded, the implement may be damaged. Also, if the implement is too big, the tractor may be damaged. Be sure of the maximum and minimum power of the tractor before attaching an implement.

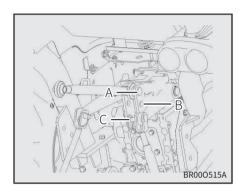
# INSTALLATION OF PTO DRIVEN IMPLEMENT

- 1. Attach the implement to the tractor.
- 2. Lift the implement off the ground.
- 3. Stop the engine and put the PTO shift lever in the neutral position.
- 4. After opening the PTO cover, connect the universal joint shaft while turning the PTO shaft by hand so as to align the splines.
- To check the PTO shaft is secured, check if the pin is returned to the original position by pulling the universal joint shaft.
- 6. Close the PTO cover.

- 7. Adjust the PTO shift lever according to the working speed.
- 8. Check if the safety shields are in place and working environment is normal. If the master safety shield is not installed, do not operate the PTO. Stop the engine to check the PTO shaft and its guards Repair or lubricate if required.
- 9. The PTO shaft should not be interfered by any surrounding parts.

### **!** CAUTION

- If someone is entangled in the rotating part, it can cause a fatal injury. Always wear protective gear and install the safety shields and guards to the drive line. Don't wear loose clothing.
- Do not remove the installed protective cover of the PTO drive shaft without permission. If working with this protective cover removed, it can cause a severe injury. Refer to the warning decal on the cover.

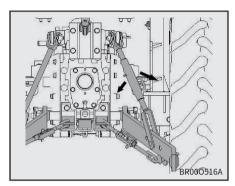




(B) Middle Traction

- 3. There are 2 holes in top link mounting bracket.
- \* Top link needs to be moved from (A) to (B) as followed.

If rear side of implement is too high.



4. Level a 3 point mounted implement from side to side by turning the adjusting handle to shorten or lengthen the adjustable lifting rod with the implement on the ground.

### **CAUTION**

After adjusting, turn down the lever for locking.

### PRECAUTIONS FOR CONNECT-ING THE IMPLEMENT

- When engaging or disengaging the implement by moving the tractor, make sure that no one is allowed around the tractor or between the implement and the tractor.
- Engage or disengage the implement on a flat and safe place. Supply proper lighting at all times and especially at night.
- 3. When engaging a heavy implement, load the weight on the front to keep the balance of the tractor.
- 4. When adjusting the implement, apply the parking brake, switch off the engine, and confirm that the PTO lever is on the "N" position.
- 5. When towing something, make sure to use the drawbar.
- 6. Increase the wheel tread on a slope or when towing.

### **AUX. HYDRAULICS**

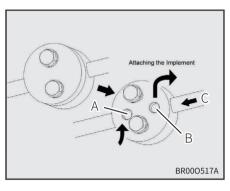
- 7. Depending on the implement, the overall length may become very long. Pay particular attention to people or objects nearby when making a turn.
- 8. Do not substitute the balance weight with a person or anything else. Always use the recommended balance weight.
- 9. For front loader work, mount an implement on the rear to keep the balance of the tractor.
- 10. Read the instruction manual of the implement mounted to the tractor.

### **WARNING**

• When the PTO shaft is not in use, affix the safety cover on it.

### [Otherwise]

There is a risk of getting entangled in the tractor or injured.



(A) Outlet

(B) Inlet

(C) Pump

Hydraulic block type outlet is useful when adding hydraulically operated equipment such as front loader, etc.

When implement is attached

- 1. Remove the block cover.
- 2. Attach the implement inlet and outlet.

### NOTE

- For hydraulic block type outlet, be sure to use the control valve "Power beyond type" with relief valve that has a third line return to tank for the operation of hydraulic block.
- The "tank" port flow from implement should be connected to the port located on the right hand side of transmission case.
- If the implement control valve has a relief valve, the tank port flow from implement should be connected to the port located on the right hand side of transmission case.

### PRECAUTIONS FOR HANDLING IMPLEMENT

- 1. When driving the tractor to attach or detach an implement, make sure that there is no one in between or around the tractor and implement.
- 2. Install and remove the implement only on safe and level ground.
- 3. When engaging a heavy implement, load the weight on the front to keep the balance of the tractor.
- 4. When adjusting an implement, apply the parking brake, stop the engine and set the PTO switch in the OFF position in advance.
- 5. To tow anything, use the towinghitch only.

### **WARNING**

- Read instructions on warning decals on each implement thoroughly before work.
- To avoid an injury due to mishandling of an implement, read the user's manual of the implement thoroughly and work safely and precisely with caution.
- Installation of an improper implement can lead to an injury. Install only implements specified by the Manufacturer.

### **ROTAVATOR**

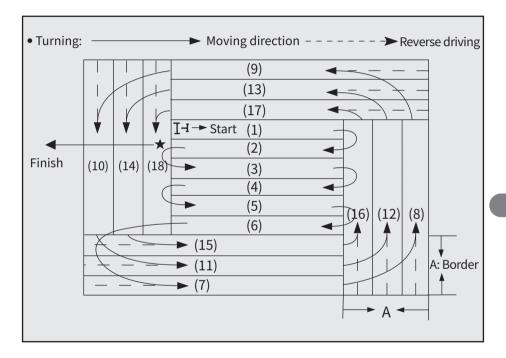
### ► Safety precautions for rotavator

- Never remove the safety cover of the rotavator.
- Do not remove the PTO shaft cover and safety cover on the universal joint.
- When adjusting each part, disengage the PTO and stop the engine in advance.
- When driving on a road, keep the PTO disengaged. Also, keep the rotavator lowered on a road as long as it does not hit the ground.
- For the universal joint, its inner shaft and outer shaft should be overlapped at least 15 cm.
- Check that the universal joint is firmly fixed to the tractor and rotavator shaft.

### **EFFECTIVE PLOWING PATTERN**

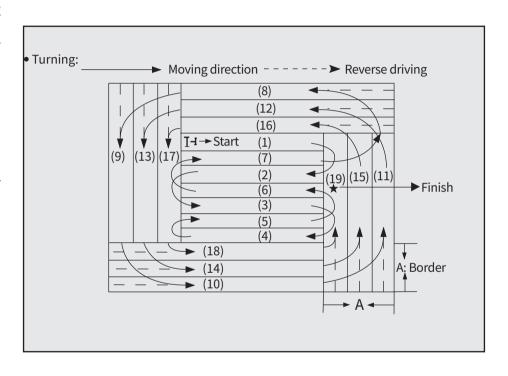
### ▶ Safety precautions for rotavator

- This pattern can be useful in a well-planned field in a good condition.
- The border shown in the figure is the effective plowing width of the rotavator and should be set a little narrower than three times of one plowing width.
- The starting point is the ending point.
- Plow in a sequential pattern from (1) to (6) and in a circular pattern from (7) to (18).
- When driving forward to plow, have the bank on the right side.
- Be careful not to press already-plowed soil with the wheels.



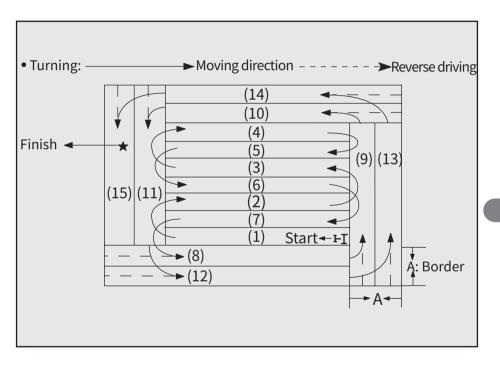
# ► Alternating returning plowing pattern

- This pattern is useful for narrow or short fields or poorly planned fields in which are not easy to turn.
- In the figure, the plowing width for (1), (2), (3) and (4) should be overlapped with the one for (5), (6) and (7) for approx. 10 cm.
- For the sections (1) to (7), perform plowing in an alternating pattern. For the sections (8) to (19), plow in a circular pattern.
- Refer to the sequential returning pattern for other details.

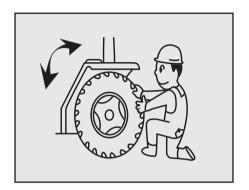


### ► Land leveling pattern

- The land leveling work may be performed after crushing soil or not.
- The vehicle speed can be set faster when performing the land leveling work with soil crushed already.
- When working in a wet field, fill the field with a sufficient amount of water so that the trace of plowing cannot be seen.
- The border shown in the figure should be set a little narrower than two times of one plowing width.
- Refer to the alternating returning pattern for other details.



### **ADJUSTING WHEEL TREAD**



Adjust the wheel tread depending on the type and condition of the work. Also, increase the wheel tread when working on a slope or towing.

- 1. Pull the parking brake, block the front wheels, and raise the body with a jack to make the rear wheels separate from the ground.
- 2. Be sure to make adjustments alternatively between the left and right wheels.

### **TIGHTENING TORQUE**

### **▲** WARNING

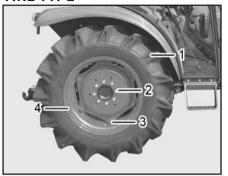
• When changing tires, please use a hoist or strong support and make sure the tractor does not move.

### [Otherwise]

There is a risk of death or injury.

	DESCRIPTION	TIGHTENING TORQUE
FRONTWHEEL	Bolts on wheels and axle	56.8 ~ 66.4 lb-ft (77~90 N.m)
REAR WHEEL	Bolts on wheels and axle	79.6 ~ 92.2 lb-ft (108~125 N.m)

### TIRES, WHEELS AND BALLAST TIRE TYPE



- (1) Tire (3) Rim bolt
- (2) Wheel nut (4) Rim

Though the tire pressure is factory set to the prescribed level, it naturally drops slowly in the course of time. Thus, check it everyday and inflate as necessary.

### WHEEL AND AXLE

If the wheel or axle is loosened, tighten to the specified torque.

- 1. Drive the tractor about 100 m and tighten it to the specified torque.
- 2. Inspect the wheel and axle every 10 hours of engine run or every 3 hours of working.
- 3. Inspect all wheels and axles frequently and securely tighten if necessary.

### **CAUTION**

• Never operate the tractor with a loose rim, wheel, hub or axle.

### NOTE

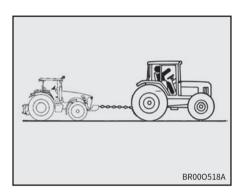
• When operating a new tractor or when removing the wheel, follow the procedures above.

### **POWER STEERING**

### **CAUTION**

- Pay attention to the steering wheels while driving, because it can be very lightly manipulated when the engine is running.
- Power steering will run only when engine is running. When engine is idling, power steering may feel a little heavy.
- If the wheels are steered to the maximum, the relief valve is opened and a warning sound will be made. Do not continue to operate the tractor with the warning sound.
- Do not steer the wheels unnecessarily, because steering the wheel without moving will attribute to early wear of tires and rims.

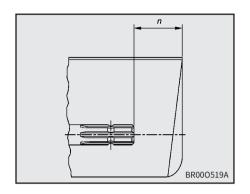
### **TOWING INSTRUCTIONS**



- 1. Tractor traction should be conducted in short distance. (For instance, from inside to outside)
- 2. Long distance towing is not allowed in traffic congestion.
- 3. In case tractor needs to tow, use strong and safechecked chain.
- 4. Traction must be conducted from the rear in usage of tow bar, tow hook and 3-point linkage.

- 5. When driver turns the handle, use the brake if necessary.
- 6. During traction, the transmission, not being lubricated but rotating or other parts in order to prevent breakage, please note the following:
- 7. Towing should be in short distance.
- 8. Traction speed is restricted to less 8km/h.
- 9. If possible, start the engine in order to make the power steering lubricated.
- 10. Place the main gearshift and sub gearshift in neutral.

### PTO SPECIFICATIONS & PRE-CAUTIONS

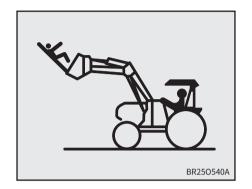


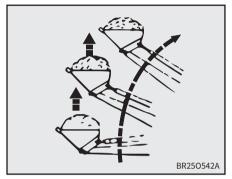
Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

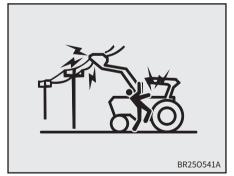
Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adapter device as outlined in the table

### LOADER OPERATION

PTO	Diameter	Spline	n ± 0.2 in
Type		s	(n ± 5 mm)
1	1.378 in. (35 mm)	6	3.580 in. (91 mm)







Work with front-end loader. (Risk of falling objects)

### **WARNING**

To avoid serious injury or death:

- Do not lift or carry anyone on buckets, forks, spears or any other portions of the loader or loader attachments.
- Inadvertent movement of the loader or attachment could result in serious injury or death.

### **CARRYING THE LOAD**

### **▲** WARNING

- Avoid contact with electrical power lines by loader or attachments.
- Do not lift or carry anyone in the bucket or on any other position of loader attachment.
- Inadvertent movement of the loader or attachment could result in serious injury or death from falling or crushing.

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### **CAUTION**

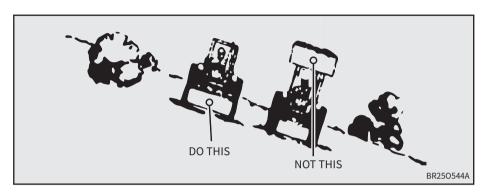
 Operating the loader on a hillside is dangerous. extreme care is recommended.

### **A** CAUTION

- Make sure material in bucket cannot roll out and down on tractor when bucket is raised to full height.
- Keep clear of overhead obstructions such as trees, limbs or power lines when raising bucket.
- When lifting the load, keep the bucket positioned to avoid spillage.

- 1. Position the bucket just below the level of the tractor hood for maximum stability and visibility, whether the bucket is loaded or empty.
- 2. Use extreme caution when operating the loader on a slope, keep the bucket as low as possible, this keeps thebucket and tractor center of gravity low and will provide maximum tractor stability.

### HANDLING LARGE, HEAVY **OBJECTS**





When transporting the load, keep the bucket as low as possible to avoid tipping, in case a wheel drops in a rut.

### **▲** WARNING

- Do not use front end loaders for handling large, heavy objects such as large, round or rectangular bales, logs and oil drums.
- Handling large, heavy objects can be extremely dangerous due to.
  - 1. Possibility of rolling the tractor over.
  - 2. Possibility of upending the tractor.
  - 3. Possibility of the object rolling or sliding down the loader arms onto the operator.

### **CAUTION**

• When transporting the load, keep the bucket as low as possible to resist tipping, in case a wheel drops in a rut. This will avoid tipping and possible injury.

### **A** CAUTION

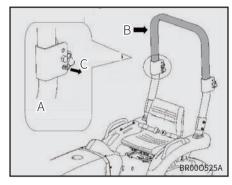
The following safety precautions should be thoroughly understood before attempting machine assembly.

- Do not lift heavy parts or assemblies. Use crane, jack, tackle, fork trucks, or other mechanical devices.
- Select an area for assembly that is clean and free of any debris which might cause persons working on the assembly to trip.
- Arrange parts to be assembled neatly in the work area and have tools and other mechanical assisting devices in easy reach.
- Inspect all parts and assemblies thoroughly and remove any sharp edges, grease, oil, or dirt which might cause pieces to slip when handling.

### **A** CAUTION

- Preview the assembly instructions in your operator's manual before proceeding further.
- If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also, insure that the blocking material is on a clean, dry surface.
- Never put hands or any other parts of body parts under blocked up assemblies if at all possible.
- Always wear goggles or safety glasses when hammering, grinding or drilling metal parts.
- If the assembly calls for welding or cutting, be sure that there are no flammable materials close at hand and that bystanders have taken necessary precautions.

# ROPS FOLDING METHOD HOW TO FOLD DOWN THE ROPS



- (A) Pull the pins on both
- (B) Push the safety frame
- (C) Replace the pins
- 1. Pull the pins to separate both sides.
- 2 Raise the ROPS a little.
- 3 Replace the pin.
- 4 Fold down the ROPS, and the pins will lock into place.
- \*If it is not certain whether the pins are fixed, shake the frame a little bit to fix the pins for sure.

### **HOW TO STAND UP THE ROPS**

- 1. Pull the pins on both sides of the tractor and turn them about 1/4 turns to release the lock of the ROPS
- 2. Raise the ROPS a little.
- 3. Replace the pins.
- 4. Stand the ROPS up, and the pins will lock into place.
- \* If it is not certain whether the pins are fixed, shake the ROPS a little bit to fix the pins for sure.
- 5. Turn the handle to fix the push plate and the frame.

### **▲** CAUTION

- Don't fasten your seat belt after folding ROPS.
- When you drive tractor, fold up vertically.

### [Otherwise]

If the tractor rolls over, you could be injured or death may occur.

### **CAUTION**

- Fasten your seat belt after folding up ROPS.
- When working with the tractor, don' t fold down ROPS.
- Don't change ROPS without authority.
- Before using tractor, check your ROPS support and other parts.
- If there is damage to the ROPS, change ROPS at once.

### [Otherwise]

If the tractor rolls over, you could be injured or death may occur.

**\*\* ROPS** are a very important structure for protection on roll over, ALWAYS check your ROPS

# **MEMO**

# **6. MAINTENANCE AFTER WORK**

MAINTENANCE SCHEDULE CHART 6-3
FLUIDS 6-5
FLUIDS AND CAPACITY6-5  ROUTINE MAINTENANCE6-6
OPENING HOOD6-6
CHECKING AND CHANGING OILS(ENGINE) 6-6
ENGINE OIL CHECKING6-6 CHANGE OIL6-7
CHECKING AND CHANGING OILS(TRANSMISSION) 6-7
CHECKING OIL6-7 CHANGE OF FLUID6-7
CHECKING AND CHANGING OILS(FRONT AXLE FLUID) $6-8$
CHECKING OIL6-8 CHANGE OF FLUID6-8

FILTER REPLACEMENT (ENGINE OIL)	6-8
REPLACEMENT	6-9
FILTER REPLACEMENT (TRANSMISSION)	6-10
REPLACEMENT	6-10
RADIATOR SCREEN & AIR CLEANER ELEMENT	6-11
CLEANING OF AIR CLEANER	6-11
CLEANING OF RADIATOR SCREEN	6-11
COOLANT	6-12
CHECKING	6-12
REPLACEMENT	6-12
ANTI-FREEZE MIXTURE RATIO	6-13

DRAINING AIR FROM FUEL TANK6-13	STEERING WHEEL	6-17
BATTERY6-14	BRAKE	6-18
CHECKING BATTERY6-14	FAN BELT	6-19
BATTERY POWER SWITCH6-15	AIR PRESSURE IN TIRES	6-19
PIPES6-15	TORQUE OF WHEEL BOLTS	6-20
ELECTRICAL CABLES6-16	COLOR OF EXHAUST GAS	6-20
GREASING6-16	FUSE & FUSEABLE LINKS	6-20
CLUTCH6-17	TOE-IN	6-21

### MAINTENANCE SCHEDULE CHART

○: Check · Add · Adjust •: Replace ★ : Replace at first time only  $\triangle$ : Clean

INSPECTION PART							НО	UR							YEAR	
INSPECTION PART	50	100	150	200	250	300	350	400	450	500	550	600	650	700	1YR	2YR
ENGINE OIL LEVEL						(	CHECK	BEFOR	E EVER	Y WORI	K					
ENGINE OIL & FITER	*					•					•				•	
FUEL FILTER										•						
FUEL HOSE & BAND		CHECK BEFORE EVERY WORK						•								
AIR CLEANR ELEMENT		Δ		Δ		Δ		Δ		•		Δ		Δ		•
AIR CLEANER HOSE & BAND		CHECK BEFORE EVERY WORK								•						
INLET HOSE & BAND					(	CHECK	BEFOR	E EVER	Y WORI	<						•
COOLANT																•
COOLANT LEVEL		CHECK AND ADD BEFORE EVERY WORK					•	•								
RADIATOR & RADIATOR NET		CHECK AND CLEANING BEFORE EVERY WORK														
RADIATOR HOSE & BAND		CHECK BEFORE EVERY WORK					•									
FAN BELT & A/C BELT		0		0		0		0		0		0		0		
BATTERY		0		0		0		0		0		0		0		

<sup>※</sup> Replace the fan belt & a/c belt as required.

Charge and replace the battery as required.
 Inspection should be done every 50 hours. If the tractor is not used much, inspect every year.

<sup>\*</sup> Replace a part at running hour or year whichver comes first.

○: Check · Add · Adjust★: Replace at first time only△: Clean

INCRECTION DART							НО	UR							YE	AR
INSPECTION PART	50	100	150	200	250	300	350	400	450	500	550	600	650	700	1YR	2YR
TRANSMISSON OIL	*	0	0	0	0	0	•	0	0	0	0	0	•	0		
TRANSMISSON OIL FILTER	*	0	0	0	0	0	•	0	0	0	0	0	•	0		
FRONT AXLE OIL	*	0	0	0	0	0	•	0	0	0	0	0	•	0		
FUEL PIPE & CONNECTION					(	CHECK	BEFOR	E EVER	Y WORI	K						•
STEERING WHEEL HOSE					(	CHECK	BEFOR	E EVER	Y WORI	<						•
HYDRAULIC OIL HOSE		0		0		0		0		0		0		0		
ELECTRIC CABLES		CHECK BEFORE EVERY WORK														
GREASING						(	CHECK	BEFOR	E EVER	Y WORI	K					
TIGHTENING HANDLES		0		0		0		0		0		0		0		
TIGHTENING BOLTS & NUTS	0	0		0		0		0		0		0		0		
CLUTCH		0		0		0		0		0		0		0		
BRAKE		0		0		0		0		0		0		0		
ENGINE BREED PIPE	0	0		0		0		0		0		0		0		
ENGINE CRANKCASE						Δ						Δ				
INTAKE/EXHAUST GAS VALVES												0				
FUEL INJECTION VALVE												0				
GENERATOR MOTER	0	0				0				0				0		
HYDARAULIC SYSYEM	0	0				0				0				0		

### FLUIDS FLUIDS AND CAPACITY

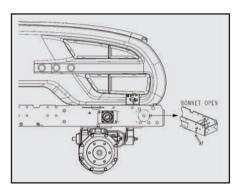
No.	Fluid	Capacity ( $\ell$ )	Specification	Remarks
1	Fuel	23.0 (6.08 gal)	Diesel fuel (KS2)	For summer: S, For winter: W
2	Engine oil	3.0 (0.79 gal)	SAE 10W-40	CG Above
3	Grease	As needed	NO.2 of KSM2130	Multi purpose
4	Coolant	Radiator: 3.8 (1.00 gal ) Sub tank: 0.8 (0.21 gal)	Appropriate genuine anti- freeze	NO.2 of KSM2142 or equiva- lent, permanent type
5	Transmission oil (Also for hydraulic steering wheel)	Manual:12.0 (3.16 gal) / HST :2.8(3.43 gal)	TYM origin oil	Texaco TDH oil, 1893 Chevron Tractor HYD Fluid
6	Front axle	2.8 (0.73 gal)	THIN OHIGHT OIL	

## **!** WARNING

### 7 MYKIAIIAO

- Check the oil level regularly. Correct the oil level, if needed, before operating.
- Always check and add oil with the tractor on a flat, level surface.

# ROUTINE MAINTENANCE OPENING HOOD



(A) Open Lever

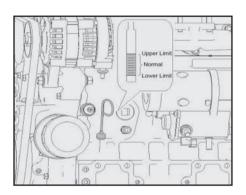
- 1. Turn the hood open lever with a spanner to release the lock of hood
- 2. Raise the hood with both hands
- 3. When closing the hood, press the front part of hood until a clicking sound is heard.
- 4. After closing the hood, try to pull up the hood to see if the hood is securely locked in place.

# CHECKING AND CHANGING OILS(ENGINE)

### **!** CAUTION

Do not dispose of waste oil in water or in sewage system but take appropriate measures, such as contacting a waste oil disposal specialist.

### **ENGINE OIL CHECKING**

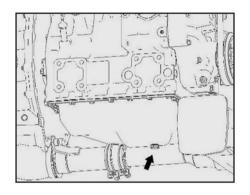


Pull out the dipstick, clean the tip of dipstick, put it back into the engine, and pull it out again to see if the oil level is between the upper and lower limit. If the oil level is below the lower limit, add oil

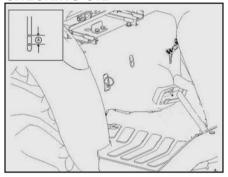
### **!** CAUTION

• Check the oil lever before the engine is started or after the engine is cooled down.

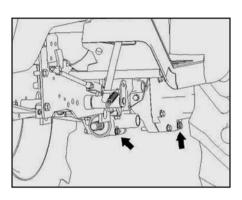
### **CHANGE OIL**



# CHECKING AND CHANGING OILS(TRANSMISSION) CHECKING OIL



### **CHANGE OF FLUID**



Drain the oil by removing the plug under the engine. Put new oil through the engine oil filler hole. Change the oil periodically, and select the right type of oil depending on the temperature and usage.

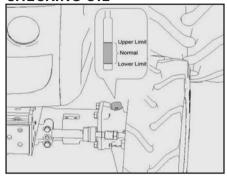
### **!** CAUTION

 Drain the oil when oil is warm but be careful! If oil is hot, there is a risk of getting burnt Check the fluid level through the inspection window at the rear side of the transmission compartment. The level should be within sight through the inspection gauge. If the fluid level is below the inspection holes(A), add fluid.

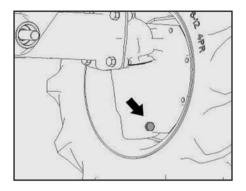
Drain the fluid through the drain holes under the rear axle case and rear axle housing. Supply the fluid through the filler hole behind the hydraulic case.

- \*Transmission oil can be used for the hydraulic system and for the power steering unit.
- \* Make sure to the genuine TYM transmission fluid.

# CHECKING AND CHANGING OILS(FRONT AXLE FLUID) CHECKING OIL



### **CHANGE OF FLUID**



# FILTER REPLACEMENT (ENGINE OIL)

Replace it every 300 hours or when engine oil is changed.

Note: First 50hr filter has to be changed.

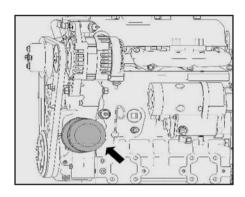
Open the fluid filler cap at the upper right side of the front axle, clean the tip of the gauge, dip the cap without screwing in, and take it out again to read the fluid level. Refill the fluid as necessary, and also check for leaks.

Drain the fluid through three drain holes under the front axle.

Refill the fluid from the upper right side of the front axle.

### 6

### REPLACEMENT



4. After the oil pressure warning lamp is turned off, check the oil level again. Add oil as necessary.

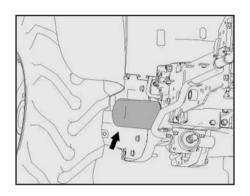
- 1. After draining the engine oil, turn the cartridge to the left with the filter wrench.
- 2. Apply a thin film of oil over the rubber ring on the bottom of the new cartridge and attach the new filter securely.
- 3. After changing the engine oil, start the engine and run it until the engine oil pressure warning lamp is turned off.

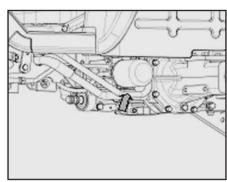
# FILTER REPLACEMENT (TRANSMISSION)

The filter is a cartridge type.

Note: First 50hr, filter has to be changed.

### REPLACEMENT





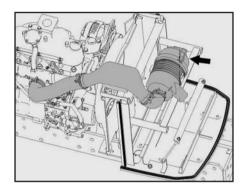
- 1. After draining the transmission fluid, turn the cartridge to the left to take it out.
- 2. Apply a thin film of fluid over the rubber ring on the bottom of the new cartridge and attach the new filter securely.
- 3. After changing the transmission fluid, start the engine to circulate the fluid and then stop the engine. Check the fluid level at dipstick on left axle housing and add fluid as necessary.

### **RADIATOR SCREEN &** AIR CLEANER ELEMENT

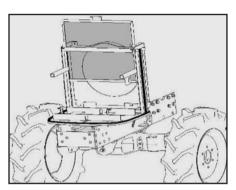
The Air cleaner removes the dust mixed in the intake air, thereby preventing abrasion of cylinder liners and piston rings to keep the engine in good condition. When working in dusty environments, clean the air filter every 50 hours and replace it every 400 hours.

In normal working environments, clean the air filter every 100 hours and replace it every 1,000 hours. If the running hours are shorter, replace the element after one year.

### **CLEANING OF AIR CLEANER**



### **CLEANING OF RADIATOR SCREEN**



Open the cover and take out the element or Blow air inside the element or shake it to take the dust off the element. Be careful to avoid damage to the pins.

Unscrew the butterfly bolt, pull up the radiator screen to take it out. Remove straw and dust. Clean it before and after working.

### **COOLANT**

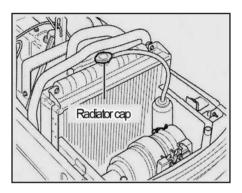
### **A** DANGER

 Do not open the radiator cap while the engine is running or right after the engine is stopped. Open the radiator cap only after the engine is stopped and fully cooled down.

### [Otherwise]

Hot water will splash and may cause burn injury

### **CHECKING**



Open the engine hood and the side cover and see if the water lever in the reservoir is between the upper and lower limit. Add clean water as necessary.

### REPLACEMENT

- 1. Open the radiator cap and the drain plug to completely drain the water from the radiator.
- 2. Rinse the radiator with tap water until no dirt or rust comes out.
  - ※ For better results, fill the radiator with water mixed with radiator flush, run the engine for over 15 minutes, and drain the water solution.
- 3. Replace the drain plug, add anti-freeze and fill the radiator with tap water.
- 4. Replace the radiator cap and run the engine to mix the anti-freeze and water.

### ► Handing of Anti-Freeze

 Anti-freeze has an effect of lowering the freezing point of water. This tractor is filled with international genuine anti-freeze when delivered from the factory. As the freezing point may differ depending on the mixture ratio, refer to the following table in very cold weather to ensure safety.

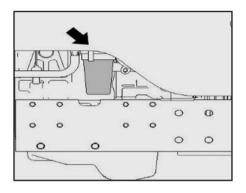
### **ANTI-FREEZE MIXTURE RATIO**

Outdoor Temp (°F)	23	14	5	-4	-13	-22
Ratio (%)	82	73	66	61	55	49
Anti-Freeze (%)	18	27	34	39	45	51

### **▶**Precaution

- When replacing the coolant, add anti-corrosive solution and run the engine for about five minutes to mix it with the water.
- For correct mixture ratio, refer to the manufacturer's instructions.
- When refilling the coolant, add only tap water.
- As anti-freeze expires in one year, replace the coolant every year.

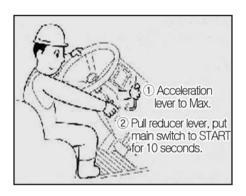
### **DRAINING AIR FROM FUEL TANK**

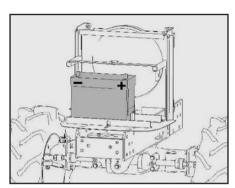


Drain the air from the fuel tank, fuel filter, and fuel filter element when the engine stops as the fuel runs out or during maintenance.

- 1. Refill fuel to fuel tank.
- 2. Put the fuel filter valve to "OPEN."

### **BATTERY CHECKING BATTERY**





3. Put the acceleration lever to MAX and the key switch to START to run the starting motor for about 10 seconds. That completes the procedure.

### **NOTE**

- If air is not removed, then there will be air in the fuel lines.
- Please check fuel lines for leakage or breakage.

### **⚠** DANGER

 Avoid heat when checking or charging the battery.

### [Otherwise]

The battery may explode and cause burns or other injury.

### **CAUTION**

 When connecting the battery cable, connect the (+) terminal first. When disconnecting the cable, disconnect the (-) terminal first.

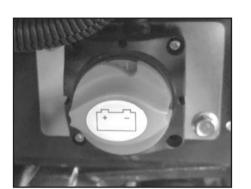
### [Otherwise]

There is a risk of getting burnt due to shorting of the battery.

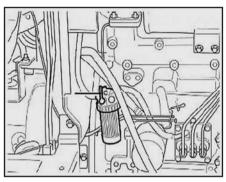
### **▶**Precaution

- When replacing the battery, make sure to install the battery of the same capacity as designated in the instruction manual.
- To preserve the environment and to recycle resources, do not discard the old battery and hand it over to the battery dialer for proper disposal.

### **BATTERY POWER SWITCH**



### **PIPES**



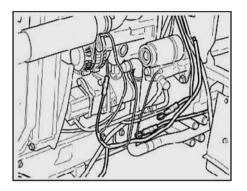
### **⚠** DANGER

- Make sure that fuel does not leak through the damaged fuel hose.
- When replacing the fuel hose, drain air.

If the tractor is not to be used for a long time, turn the switch of the power disconnector to the (-) direction to prevent the battery from being discharged.

Check the fuel hose, hydraulic steering wheel hose (pipe), radiator hose, etc. for damage or leakage. Check if there is any loose bolt. Replace the hoses and pipes every 2 years even if not damaged.

### **ELECTRICAL CABLES**



- Open the side covers of the engine and check if any cable is in contact with other parts, or if any insulation is peeled off or damaged, or any contact is loosened.
- Damaged cables must be repaired by an authorized dealer. Arrange for periodic maintenance for cables every 50 hours or once a year even thought the cables are not damaged.

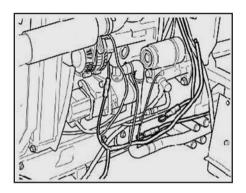
### **GREASING**

### **A** DANGER

- Before starting to work everyday, check if any cable is in contact with other parts, or if any insulation is peeled off or damaged, or any contact is loosened.
- Before and after work, remove any straw or dust on the battery or cables.

### [Otherwise]

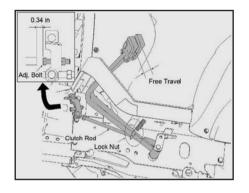
There is a risk of fire due to short circuit.



Apply grease every 50 hours. Check the relevant parts before starting work everyday and add grease as necessary. After working on a watered farm, make sure to apply grease to the tractor.

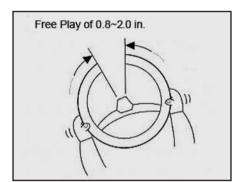
STFFRING WHFFI

### **CLUTCH**



- 4. Retighten the lock nut.
- 5. After adjusting, release the clutch pedal and check the clearance with bolts if adjustment is needed. (0.34 in.)

(Clutch pedal free play: 0.80 ~ 1.19 in.)



Adjust clutch pedal as follow.

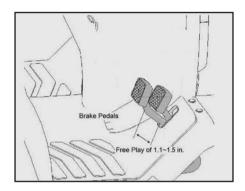
- 1. Stop the engine and remove the key
- 2. Slightly depress the clutch pedal and measure free play at top of pedal stroke.
- 3. If adjustment is needed, loosen the lock nut and turn the clutch rod to adjust the rod length within acceptable limits.

When the steering wheel is turned lightly, there should be free play 0.8 ~ 2.0 in. If the extent of the free play exceeds this range, the steering wheel may feel heavy or the tractor may not move straight. If the free play is not normal, have it fixed at your nearest authorized dealer.

### **BRAKE**

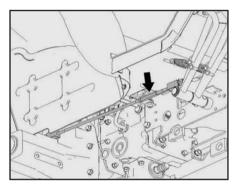
### **WARNING**

Check if the steering wheel vibrates severely or has no free play.
 [Otherwise] there is a risk of accident.

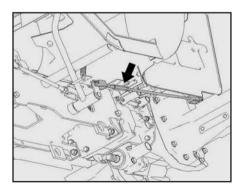


### **WARNING**

- Check the brakes to avoid one-sided braking. Otherwise, there is a risk of accident.
- If the extent of free play different between the two brake pedals, one-sided braking will occur.
   Make sure that the free play of both brake pedals is the same.
- In this case, the free play of the brake pedal is 1.1~1.5 in. [30~40 mm]
- **%** Adjust both of the brake pedals.



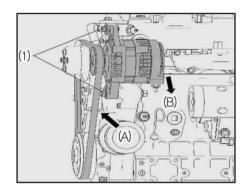
Brake Rod (R)



Brake Rod (L)

### Б

### **FAN BELT**



### **!** CAUTION

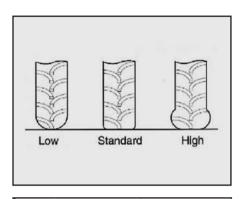
 Carry out inspection or maintenance after the engine is fully cooled down.

### [Otherwise]

There is a risk of getting burnt.

Open the engine hood and side covers and press the middle of fan belt with finger to see if the belt sags about  $0.4 \sim 0.6$  in(A) or if there is any damage to the belt. If the sagging is not correct, loosen the generator bolts(1) and move the generator(B) to adjust the tension of the fan belt. If the fan belt still slips after the generator is moved to the maximum, replace the belt with a new one. New belts must be inspected after 50 hours of running.

### **AIR PRESSURE IN TIRES**



		Air pressure (psi)
		00 series
	7 – 16 6PR	37
Front	23×8.50 - 12, 4PR	22
	23×8.50 - 12, 6PR	35
	11.2 – 20 8PR	34
Rear	33×12.5 - 16.5 4PR	30
	12 - 16.5 6PR	40

### **TORQUE OF WHEEL BOLTS**

Type	Torque (lb-ft)		
Front wheel	75 ~ 87		
Rear wheel	192 ~ 224		

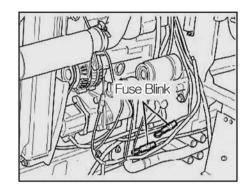
### **COLOR OF EXHAUST GAS**

The exhaust gas may be a little black at the time of starting the engine, but normally its color is clear.

Black	incomplete combustion due to too much fuel intake.			
White	misfiring or cold tempera- ture.			
Blue	burning of engine oil			

If the color of the exhaust gas remains black or white during operation, have the tractor inspected at your nearest authorized dealer.

### **FUSE & FUSEABLE LINKS**



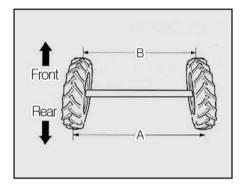
Open the fuse box cover and check the fuses. Replace any burnt-out fuses with new ones of required capacity. Stop the engine and check the main fuses (Fusible link).

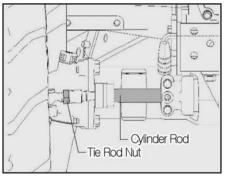
A fuse link is a type of fuse, which burns and disconnects the current in the event of excessive current flowing in the circuit. Its plastic coating is discolored when it is cut off, in which case it should be inspected at the authorized dealer.

### TOE-IN

## **WARNING**

• When replacing the fuse, use only the one of the same capacity.





If the toe-in is not properly aligned, the steering wheel may be uncontrollable or the tractor may produce an abnormal vibration. Measure the distance A and B of the front wheels and see if the different between the two measurements is  $0.15 \sim 0.3$  in.(4 $\sim 8$  mm) If not, loosen nuts at the end of the cylinder rod on both sides and adjust the length of the screws. Tighten the nuts when the toe-in is 0.15 ~ 0.30 in.(4~8 mm)

# **MEMO**

# 7. TROUBLESHOOTING

TROUBLESHOOTING - ENGINE	7-2
TROUBLESHOOTING - CLUTCH AND BRAKE	7-5
TROUBLESHOOTING - HYDRAULIC SYSTEM	7-6
TROUBLESHOOTING - ELECTRICAL SYSTEM	7-7

## **TROUBLESHOOTING - ENGINE**

Symptom	Inspection item	Action		
	• Is the clutch depressed?	Depress the clutch pedal fully and turn the ign tion switch to the "START" position.		
	Is the battery discharged?	Charge the battery.		
1. The starter motor does not start when	i • is the battery terminal toosened or combucu:	Clean and tighten the terminals.		
the ignition switch is turned to "START".	• Is the main fuse blown out?	Replace the fuse.		
	Is the ignition switch broken?	Contact the dealer for repair or replacement.		
	Is the starter motor damaged?	Contact the dealer for repair or replacement.		
2. The starter motor		Fill up the fuel tank and bleed the system.		
runs, but the engine does not start.	• Is the fuel mixed with air?	Bleed the fuel system.		
	• Is air mixed in the fuel system?	Bleed the fuel system.		
3. The engine revolu-	Is water mixed in the fuel?	Drain water and replace fuel.		
tion is irregular.	Is the injection nozzle clogged?	Contact the dealer for repair or replacement.		
	Is the fuel filter clogged?	Clean or replace it.		

Symptom	Inspection item	Action		
	• Is the coolant level low?	Refill the coolant.		
4. The engine is over- heated.	• Is the fan belt loosened or damaged?	Adjust the belt tension or replace it.		
	• Is the radiator fin clogged?	• Clean it.		
	• Is the engine oil level low?	Refill the engine oil.		
	Is the engine running under overload?	Reduce the load.		
	• Is the air cleaner clogged?	Inspect the air cleaner and replace the element.		
	• Is the nozzle damaged?	Contact the dealer for repair.		
5. The engine power is too weak.	Is the compression force weak?	Contact the dealer for repair.		
	Is the valve clearance adjusted properly?	Contact the dealer for repair.		
	Is the injection timing incorrect?	Contact the dealer for repair.		

Symptom	Inspection item	Action		
6. The coolant warn- ing lamp wis turned "ON" during opera- tion.	• Is the coolant level in the reservoir tank low?	Refill the coolant.		
	• Is the engine oil level low?	Refill the engine oil up to required level.		
7. The engine oil pressure lamp is turned	• Is the viscosity of the engine oil low?	Replace the engine oil with proper viscosity.		
"ON" during operation.	• Is the pressure switch defective?	Replace the switch.		
	• Is the oil pump defective?	Contact the dealer for repair.		
8. The battery charge warning lamp is	is the atternator derective.	Contact the dealer for repair.		
turned "ON" during operation.	Is the fan belt loosened or damaged?	Adjust the fan belt tension or replace it.		

Symptom	Inspection item	Action	
1. The clutch slips or does not be disengaged.	• Is the free play of clutch pedal proper?	Adjust the free play of the pedals.	
2. The brake does not work or works only on one side.	• Is the free play of the brake pedals proper?	Adjust the free play of the pedals.	
3. The brake pedal does not return	• Is the brake pedal return spring damaged?	Replace the spring.	
to its original position properly and it makes a noise.	• Is each sliding part well greased?	Remove the rust and apply grease.	

## **TROUBLESHOOTING - HYDRAULIC SYSTEM**

Symptom	Inspection item	Action
1. The implement does not be lifted.	• Is the hydraulic flow control dial in the close position?	Adjust the hydraulic flow control dial.
	• Is the transmission oil level low?	Refill the transmission oil.
	• Is the air taken in the fluid suction system?	• Tighten the filter or connection parts. Replace the pipe or O-ring if damaged.
	• Is the oil filter clogged?	Clean or replace it.
	• Is the Selective control valve lever in the detent position?	Put the Selective control valve lever in the neutral position.
	• Is the hydraulic pump defective?	Contact the dealer for repair.
	• Is the cylinder damaged?	Contact the dealer for repair.
2. The implement does not be lowered.	• Is the hydraulic flow control dial in the close position?	Adjust the hydraulic flow control dial.
	• Is the position control lever on the lowest position?	Move the position control lever.
	• The implement cannot be lowered even though the position control lever is placed in the lowest position.	

## **TROUBLESHOOTING - ELECTRIC SYSTEM**

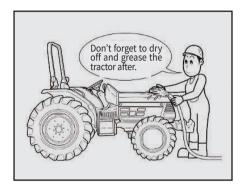
Symptom	Inspection item	Action
1. The headlamp does not turn "ON".	• Is the bulb blown?	Replace the bulb.
	• Is the fuse blown?	Replace the fuse.
	• Is the cable connector separated from the socket?	• Inspect it.
	• Is the contact in a poor condition?	Inspect and clean the grounding and terminals.
2. The turn signal lamp does not come "ON".	• Is the bulb blown?	Replace the bulb.
	• Is the fuse blown?	Replace the fuse.
	• Is the cable connector separated from the socket?	Inspect it.
	• Is the contact in a poor condition?	Inspect and clean the grounding and terminals.
3. The other lamp does not turn "ON".	• Is the bulb blown?	Replace the bulb.
	• Is the fuse blown?	Replace the fuse.
	• Is the cable in a poor contact?	Inspect the cable and secure the contact.
	• Is the switch defective?	Replace the switch.

# **MEMO**

# **8. STORAGE AND DISPOSAL**

DAILY STORAGE	8-2
LONG-TERM STORAGE	8-3
OPERATING TRACTOR AFTER LONG-TERM STORAGE	8-6
USAGE AND DISPOSAL	8-7

### **DAILY STORAGE**



After work, clean the tractor and dry the moisture and supply grease into each grease nipple.

Avoid water on electrical parts whenever possible, as it will cause equipment breakdown.

- 1. Store the tractor after cleaning it. Especially, clean it thoroughly after harrowing or working in a wet field.
- 2. Be sure to lower the implement.
- 3. Store it indoors if possible. If it should be kept outside, cover it.

### **!** CAUTION

- Unless the battery is removed from the vehicle, make sure to disconnect the negative(-) battery cable.
   The wiring can be gnawed by rodents, leading to a fire.
- 4. Remove the battery from the tractor in winter and store it indoors for easy starting.
- 5. Add anti-freeze to the tractor in winter season in order to prevent the radiator from freezing.
- 6. Remove the ignition key and store it separately.

### **A** DANGER

 When covering the tractor, make sure that the engine or the muffler has fully cooled down.

### [Otherwise]

There is a risk of fire.

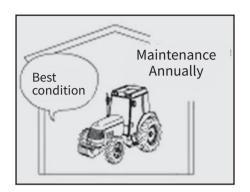
### **CAUTION**

• When carrying out checking, maintenance, or repair, make sure to turn off the engine.

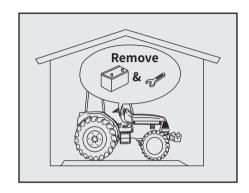
### [Otherwise]

There is a risk that you may be entangled in the tractor or get injured.

### **LONG-TERM STORAGE**



In particular, we recommend that the electrical cables and the rubber hoses, such as fuel hose, steering hoses and radiator hoses, be replaced every two years.



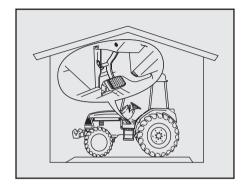
If you carry out maintenance during the off season, you can ensure optimum condition of the tractor as well as safe and comfortable working conditions during the busy season. Also, in order to secure the safety of each part of the tractor and to prevent an accident that may occur due to poor maintenance, arrange with your authorized dealer for periodic maintenance once a year.

If the tractor is not used for a long time, store it in the following manner.

- 1. For long storage, put the ignition switch to "OFF".
- 2. Select a dry and well-drained place for storage. Remove detach the weight & implement or put it down onto the ground.

- Fill up the fuel tank. Empty space in the fuel tank will produce dewdrops that will produce condensation that will be the cause of rust formation. And lock the fuel cock to "C". (Closed)
- 4. Disconnect the battery completely and store it away from the tractor in a well-ventilated, dry, dark place if possible. When the battery is attached to the tractor, make sure to connect the (+) terminal first.
- 5. Change the engine oil and run the engine to circulate oil throughout all the engine parts for about 5 minutes.
- 6. Drain the coolant from the radiator. After draining the coolant, attach a tag of "No coolant, do not start" to the steering wheel. If there is anti-freeze in the cooling system, it is not necessary to drain it.
- 7. Check the bolts and nuts for looseness, and tighten if necessary.

- 8. Add oil, fluid and fuel to each part according to the maintenance chart.
- Apply a slight coat of grease or oil onto the tractor parts where is easy to be rust such as bare metal surface.
- 10. Inflate the tires to a pressure a lit tle higher than usual.
- 11. Place chocks behind and in front of the rear wheels.



- 12. Store it in a dry indoor place to avoid rain or snow and cover the body.
- 13. Keep the clutch pedal in a depressed position to avoid rust on the clutch.
- 14. Put all controls into the neutral position.

### ♠ IMPORTANT

- When cleaning the tractor, be sure to stop the engine. Allow sufficient time for the engine to cool before washing.
- Cover the tractor after the muffler and engine have cooled down completely.

### **WARNING**

 Carry out maintenance on a flat and safe place where the tractor will not fall or move and there is no traffic danger. Also, block the front tires to prevent moving of the tractor. Otherwise, there is a risk of accident, such as overturning of the tractor.

### **WARNING**

- Carry out checking and maintenance for each part every year.
- In particular, replace the fuel hoses and the steering hoses every two years. Otherwise, there is a risk of accident or machinery breakdown due to poor maintenance.
- When carrying out checking or maintenance, make sure to stop the engine.
- Replace the covers that have been defected for checking or maintenance.
- Carry out checking or maintenance after heated parts, such as muffler, engine or transmission, have fully cooled down.Otherwise, there is a risk of getting burnt.

### **!** CAUTION

To avoid a personal injury,

- Never clean the tractor body while the engine is running.
- Never run the engine in an enclosed area without proper ventilation system in order to prevent poisoning by exhaust gas.
- When storing the tractor, remove the key from the switch and store it separately in order to prevent an unauthorized person from operating the tractor and being injured.

### **OPERATING TRACTOR AFTER LONG-TERM STORAGE**

Keep the following instructions when operating the tractor after its long-term storage.

- 1. Perform the inspection procedures before operation.
- 2. Check the tire air pressure and inflate the tires if it is low.
- 3. Install a fully charged battery. Check that the battery is fully charged before installing it.
- 4. Check the fan belt tension.
- 5. Check all fluid levels. (Engine oil, transmission/hydraulic oil, and engine coolant)
- 6. Remove grease from the exposed cylinder rod.
- 7. Apply grease to the lubrication points.
- 8. Remove the cover from the exhaust pipe.
- 9. Get onto the tractor and start the engine. To prolong the life and to enhance the performance of the engine, idle the engine for about 30 minutes before starting work.

- 10. Start the engine, release the parking brake, and check the brake condition by depressing the brake pedal. Adjust the free play of the brake pedals if necessary.
- 11. Check if the instrument panel and all parts operate correctly while running the engine for a few minutes.
- 12. Drive the tractor outside and check if it is operating properly. Park the tractor outside and idle the engine for at least 5 minutes. Stop the engine and visually inspect the tractor. Check if there is leakage.
- 13. Stop the engine and check for leakage. Repair any part as required.

### 

 When operating the tractor in an enclosed area, ventilate the area to release exhaust gas to the outside. Exhaust gas is colorless and not visible, but is harmful.

### **USAGE AND DISPOSAL**

It is recommended to keep the following to protect the environment:

- 1. Overload on the machine shortens the product life and increases the harmful exhaust gas which causes air pollution due to the incomplete combustion.
- 2. When changing the fluid (engine oil, transmission/hydraulic oil, and engine coolant) by yourself, be careful not to spill it and dispose used oil and coolant properly according to the applicable regulations. Otherwise, it can pollute the ground and water.

# **MEMO**

# 9. INDEX

NDEX	9-2
1140LA	J-

A	C
ACCELERATOR LEVER4-5	CARRYING THE LOAD5-33
ACCELERATOR PEDAL4-5	CAUTIONS FOR DECAL MAINTENANCE1-36
ADJUSTING THE LOWERING SPEED OF THE IMPLEMENT	CHANGE OF FLUID6-7
5-15	CHANGE OF FLUID6-8
ADJUSTING WHEEL TREAD5-29	CHANGE OIL6-7
AFTER USING THE MACHINE1-17	CHECKING6-12
AIR PRESSURE IN TIRES6-19	CHECKING AND CHANGING OILS(ENGINE)6-6
ANTI-FREEZE MIXTURE RATIO6-13	CHECKING AND CHANGING OILS(FRONT AXLE FLUID)
ATTACHMENT OF IMPLEMENT5-21	6-8
ATTACHMENT POSITION5-21	CHECKING AND CHANGING OILS(TRANSMISSION)
AUX. HYDRAULICS5-24	6-7
	CHECKING BATTERY6-14
В	CHECKING OIL6-7
BATTERY6-14	CHECKING OIL6-8
BATTERY CHARGE LAMP4-9	CLEANING OF AIR CLEANER6-11
BATTERY POWER SWITCH6-15	CLEANING OF RADIATOR SCREEN6-11
BEFORE USING THE MACHINE1-2	CLUTCH6-17
BEFORE WORKING1-11	CLUTCH PEDAL4-11
BRAKE6-18	COLOR OF EXHAUST GAS6-20
BRAKE LAMP4-19	COOLANT6-12
BRAKE PEDAL4-12	CRUISE CONTROL UNIT4-13

D	F	
DAILY INSPECTION BEFORE STARTING5-3	FAN BELT	6-19
DECAL1-33	FILTER REPLACEMENT (ENGINE OIL)	6-9
DECAL MOUNTING LOCATION1-31	FILTER REPLACEMENT (TRANSMISSION)	6-10
DIFFERENTIAL LOCK5-18	FLOW CONTROL VALVE	4-18
DIFFERENTIAL LOCK PEDAL4-12	FLUIDS	6-5
DRAINING AIR FROM FUEL TANK6-13	FLUIDS AND CAPACITY	6-5
DRIVING ON THE ROAD5-15	F-R HST DRIVE PEDAL	4-13
DRIVING ON THE SLOPE5-16	FUEL GAUGE	4-9
	FUSE & FUSEABLE LINKS	6-20
E		
EFFECTIVE PLOWING PATTERN 5-26	G	
ELECTRICAL CABLES6-16	GREASING	6-16
ENGINE OIL CHECKING6-6		
ENGINE OIL PRESSURE LAMP4-9	Н	
ENTERING AND LEAVING THE PAVEMENT5-17	HANDLING LARGE, HEAVY OBJECTS	5-34
EXTERIOR VIEW4-2	HAZARD LAMP SWITCH	4-6
	HEAD LAMP & HORN S/W	4-6
	HEAD LAMP (HIGH BEAM)	4-10
	HOUR METER	4-8
	HOW TO FOLD DOWN THE ROPS	5-35

HOW TO STAND UP THE ROPS ......5-36

	_
	P
INSTALLATION OF PTO DRIVEN IMPLEMENT 5-22	PEDALS4-11
INSTRUMENT PANEL4-7	PIPES6-15
	POSITION CONTROL LEVER4-15
L	POWER STEERING5-30
LEVER OPERATION (L)4-16	PRECAUTION FOR PROLONGED STORAGE1-21
LEVER OPERATION (R)4-14	PRECAUTIONS FOR CONNECTING THE IMPLEMENT
LOADER OPERATION5-32	5-23
	PRECAUTIONS FOR HANDLING IMPLEMENT 5-25
M	PRE-HEAT LAMP4-8
MAIN GEAR SHIFT LEVER4-14	PRE-OPERATION CHECK5-3
MAIN KEY SWITCH4-4	PTO POSITION4-8
MAINTENANCE SCHEDULE CHART6-3	PTO SHIFT LEVER4-17
MFWD LEVER4-15	PTO SPECIFICATIONS & PRECAUTIONS5-31
0	R
OPENING HOOD6-6	RADIATOR SCREEN & AIR CLEANER ELEMENT 6-11
OTHER	RANGE SHIFT LEVER(2400)
OTHERS	RANGE SHIFT LEVER(2510)
0111LN3 + 10	REGARDING GENUINE PARTS AND FLUID2-3
	REGARDING SUPPLYING SERVICE PARTS2-3
	REPLACEMENT6-9
	REPLACEMENT6-10

REPLACEMENT.....6-12

ROPS FOLDING METHOD5-35
ROTAVATOR5-25
ROUTINE MAINTENANCE6-6
RUNNING-IN PERIOD5-10
S
SAFETY PRECAUTIONS1-2
SEAT BELT4-18
SPECIFICATIONS3-2
STARTING / STOPPING THE ENGINE5-11
STEERING WHEEL6-17
STOPPING5-20
SWITCHES AND LEVERS4-4
Т
TACHOMETER4-7
TAIL LAMP4-19
TIRE TYPE5-30
TIRES, WHEELS AND BALLAST5-30
TO RAISE OR LOWER THE IMPLEMENT5-14
TO START THE ENGINE 5-12
TO STOP THE ENGINE5-14
TOE-IN6-21
TORQUE OF WHEEL BOLTS6-20

TOWING INSTRUCTIONS	5-31
TRACTOR LOADING /UNLOADING	5-19
TRAVEL SPEED	
TROUBLE SHOOTING	2-2
TROUBLESHOOTING - CLUTCH AND BRAKE	7-5
TROUBLESHOOTING - ELECTRICAL SYSTEM	7-7
TROUBLESHOOTING - ENGINE	7-2
TROUBLESHOOTING - HYDRAULIC SYSTEM	7-6
TURN SIGNAL S/W	4-6
TURNING ON THE PAVEMENT	5-17
W	
WARRANTY	2-2
WATER TEMP GAUGE	4-10
WHEEL AND AXLE	5-30
WHILE WORKING	1-16

# **MEMO**