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1. General Notices for Safety

1-1. Before using the tractor



* Have to read and understand this Operator's manual carefully and always refer to information and prescriptions outlined in this manual to prevent all potential health and safety risks.

General information for intended use

- Your tractor is designed and manufactured to pull, to carry, to supply the power a variety of mounted or towed equipment **for agriculture**. Do not use the product for other purposes than intended by the manufacturer and outlined in this manual. Do not use this tractor for light/heavy forestry applications.
- Do not use the product beyond its **limits of terrain gradient** and stability than outlined in this manual. Using the tractor beyond these limits may cause a overturning accident.
- Do not use the tractor on higher speeds than allowed by the load of the tractor and road condition. Always choice a suitable driving speed to maintain the stability of the tractor.
- Do not use the tractor **near or on soft verges** of canals and brooks or banks and verges that are undermined by rodents. The tractor may sink sideways and roll-over.
- Do not use the tractor on brittle bridge heads and poor bridge floors, These constructions may
 collapse and cause overturning of the tractor. Always check out the condition and carrying
 capacity of bridges and ramps prior to engage.
- Do not use the tractor without wearing the seat belt and Roll-Over Protective Structure (ROPS) during operations where roll-over or tip-over hazards exist. The ROPS will only be fully effective when the driver remains attached to his seat.
- Do not use equipment mounted on the tractor which is not **correctly matching and firmly fixed**. Such equipment may increase the risk for roll-over and hit the tractor when coming loose.
- Do not use the tractor in combination with equipment arbitrary, without **having consulted the specific operator's manual provided with the equipment**. This manual alone cannot provide you with all the information about safety operation of the combination.
- Do not use the tractor beyond its **limits of dynamic stability**. High speed, abrupt maneuvers, and fast and short cornering will increase the risk of roll-over.
- Do not use the tractor for **overloaded pulling work**, in cases where you don't know if the load will yield, for instance when pulling stumps. The tractor may flip over when the stump is not yielding.
- Be extremely cautious when working with the tractor on forage silos without lateral concrete walls.
 A wide track setting may improve the lateral stability of the tractor.
- Be cautious that the **center of gravity of the tractor may increase** when the front-end loader is loaded or the three-point linkage are raised. In these conditions, the tractor may roll-over earlier than expected.
- Do not step down from the tractor without shutting down the PTO, shifting the transmission to neutral and applying the parking brake.

- Never remove or modify or change the driver's protection device or safety device arbitrary.
- You must take the necessary precautions to always be aware of the possible presence of bystanders, certainly when maneuvering in confined areas. Keep people away from the tractor during work. Pay the necessary attention while operating next to public roads or footpaths. Thrown objects can get projected outside the field and hit unprotected people like bikers or pedestrians. Wait until it is clear of bystanders.
- Do not violate the **local traffic rules** related to public roads and highways
- **Do not allow riders** on the tractor; do not allow people standing on the access way or step to the cab when the tractor is moving. Your view to the left will be obstructed and a rider risks to fall from the tractor during unforeseen or abrupt movements.
- This tractor has only one operator station and is a one man operated vehicle. Other people on or around the tractor during normal operation are not allowed.
- Always stay clear from implements operating area and especially do not stand between tractor and trailed vehicle either three-point linkage when operating lift controls; ensure no bystanders are near these operating areas.
- This tractor may be equipped with a number of sensors to control safety functions. **Do not attempt to bypass any function** on the tractor. You will be exposed to serious hazards, and moreover, the behavior of the tractor may become unpredictable.
- The manufacturer will not be responsible for the damage or safety problems caused by maintenance or repair with non-genuine parts. It must be requested to **use the genuine parts**.
- When cleaning the tractor by using high pressurized water, do not inject water directly to the electronic parts, wiring, air intake pipe, hot engine or muffler inside the bonnet.
- Maintenance and repair of the tractor is performed by skilled technical experts with the proper tools authorized by the manufacturer.
- For damage or accidents caused by the miss use or operation in violation of these rules, the manufacturer and its distributors will not have any responsibility and warranty.
- Keep this Operator's manual for future reference at hand (on the tractor).

Safety Mark Description

- In the places where the cautions in usage are required, the marks such as "DANGER", "WARNING", "CAUTION" are found.
- You should comply with the description marked on the decals attached on the product or the contents marked with safety mark in this Operator's Manual.



Danger - This indicates a fatal dangerous situation that may cause a serious injury or death if not avoided.



Warning - This indicates a potential dangerous situation that may cause a serious injury or death if not avoided.



Caution - This indicates a potential dangerous situation that may cause a light injury or damage to the properties if not avoided.

Notice

Notice - This indicates the instructions for right use for the safety of persons or products.

◆ Product Identification

Your tractor has a exclusive chassis number and engine number marked with product serial number tag to identify the product. (See Fig. 1-1)

In case of requesting service or parts from your dealer

Dealer will need chassis serial number, engine serial number, TM number and running hours displayed on the instrument panel. (See Fig. 1-3)

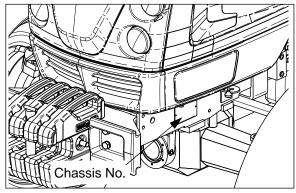


Fig.1-1

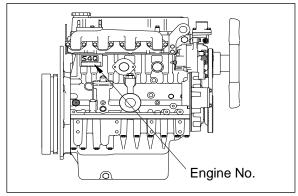


Fig.1-2

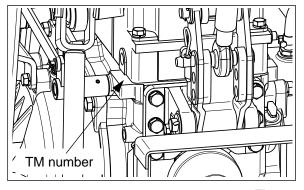


Fig.1-4

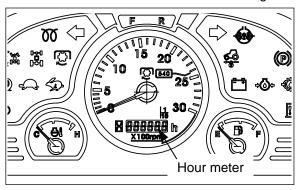
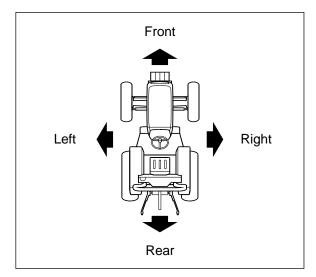


Fig.1-3

♦ Terminology

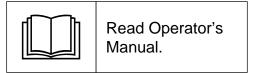
When reading this Operator's Manual, refer to the right figure for the discrimination of the front/rear/left/right direction.



1-2. Safety Precautions - read this for safety before using.

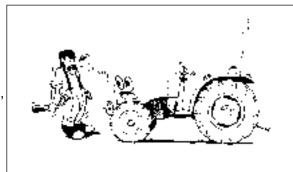
(1) Notices before using the tractor

 For Safety Instruction: Before using the tractor, read this Operator's Manual carefully and understand the instructions fully for the safety prevention and right usage of the tractor and then use the tractor safely according to the instructions.



Especially, special cares must be taken for using the tractor in the places where the safety signs such as Danger, Warning, Caution etc. are marked. (See page 1-2)

- Safety Decals: For right use and personal safety of the operator, the safety decals are attached to the parts related with safety operation. Before using the tractor, comply with the safety instructions. (For further information, refer to the section 1-6 "Safety Decals")
- Operator's condition: The persons such as patients, drunks, people on drugs, etc. are never allowed to operate this tractor.
 Only educated operators can use the tractor after learning the usage of controls for moving, stopping, turning and other operating.



Suitable Clothes & Protect Entanglement:
 When checking or operating the tractor, wear tight fitting clothes and safety equipment instead of loose or long clothes. Also, slippers, high heel shoes are not suitable for operation. Wear the low shoes or work shoes or boots.





- ▶ Do not approach the rotating shaft such as PTO shaft or cooling fan, especially, with loose clothing and long clothes. The entanglement in rotating shaft can cause serious injury or death.
- ▶ Stop the engine and be sure PTO shaft is stopped before getting near it.
- Keep Riders off: Riders on the tractor or implements obstruct the operator's view and can be
 thrown off the tractor. It can cause a serious injury or death. Riders should not be carried on the
 tractor at any time.



▶ Additional seat (where fitted) is used for driver training or instruction. Do not permit anyone to ride on the tractor.

- Protect Children: Pay special attention to children (or a child) while using the tractor or during storage.
 - Make sure children keep a safe distance from the tractor and all implements before using the tractor. Be alert to the presence of children.
 - Do not let children or an untrained person operate the tractor.
 - Do not allow children to approach the tractor while the engine is running.
 - When parking the tractor, remove the ignition key and lower implements to the ground for children's safety.



- ▶ As children are very curious, they may do unexpected movements or actions. Special care must be taken, when operating tractor or equipment.
- Periodical Check: "Lubrication and Maintenance" must be performed periodically. If necessary, do it immediately and if not, it may cause the failure, reduction of product life or physical injury.
 - * Periodic Lubrication and Maintenance Fuel, Oil, Filter, Air cleaner, Battery, Belt, Cable, Grease, Pedals such as clutch and brake pedal, Tire air pressure, Wheel bolts, Toe-in, Electrical wirings, other items related to safety.
- **Genuine Parts**: When replacing parts, you must use "Genuine Parts" of LS tractor. Contact your authorized dealer. If not, it may cause a reduction of product life, failure and serious injury.
- Restrict Maintenance: If you repair or change some components and settings arbitrary, the
 performance of the tractor can NOT be guaranteed, and may void the warranty And also,
 maintenance of the heavy weighted parts without special tools can cause serious injury.
 If it is required to check or repair the tractor due to trouble, or if you have any questions for the
 usage or operation of the tractor, contact your authorized dealer.
 - * The items that are not allowed to be modified or changed or removed arbitrarily by user are below:
 - Protection structures such as PTO cover, Guards, Safety frame (Roll-bar), Cab, etc.
 - Engine components, Fuel injection control and setting, etc.
 - Automatic control equipment, Lamps, Transmission, Hydraulic valve and pressure settings.
 - Other parts that detail and where complicated adjustments are needed.



- ▶ Skilled professional technology is needed for the repair.
- ▶ For derail maintenance or repair, contact your authorized dealer.
- Lamps: Do not modify the lamps or change the bulb capacity arbitrarily.



- ▶ Modified lamps or change bulb capacity may cause the traffic accident by disturbing approaching driver's views.
- ▶ If the lamp is blown out, replace it immediately with a genuine part. In case of driving at night, it may cause a traffic accident.

Protective Structures: For the operator's safety, various protective structures, i.e. Bonnet (Hood),
Fan cover, PTO safety cover, PTO shaft protection cap, Roll-bar or another Roll-over Protective
Structure, etc are attached on the tractor. If these structures are modified or removed by user
arbitrarily, it may cause serious accident. Such behaviors are prohibited strictly.



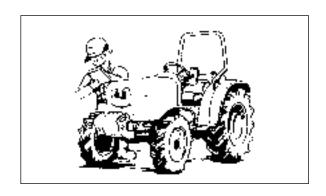
▶ The Protective Structure and interconnecting components are a certified system. Any damage, Fire, corrosion or modification will weaken the structure and reduce your protection. If this occurs, the Protective Structure MUST be replaced with a new one. Contact your authorized dealer for Protective Structure inspection and replacement.



- ▶ In case of an accident, fire, tip or roll-over, the following MUST be performed by a qualified technician before operating the tractor again.
 - The Protective Structure MUST be replaced.
- The mounting or suspension for the Protective Structure, operator seat and suspension, seat belt and mounting components and wiring within the operator's protective system MUST be carefully inspected for damage.
- All damaged parts MUST be replaced.
- ▶ DO NOT attach any device to the Protective Structure for pulling purposes.
- ▶ DO NOT weld, drill holes, attempt to straighten or repair the protective structure. The modification can reduce the structural integrity of the structure which can cause death or serious injury in the event of fire, tip, roll over, collision or accident and void the warranty.
- Level of protection of the FOPS (Falling Objects Protective Structure): This tractor does NOT
 provide protection against falling objects according to OECD code 10 standard. It is recommended
 to use a certified FOPS structure when working with front-end loaders.
- Level of protection against hazardous substances: This tractor does NOT provide protection against hazardous substances. Do not use the tractor with crop sprayers in hazardous area.
- Level of protection of the OPS (Operators Protection Structure): This tractor does NOT
 provide protection against
 - low hanging wires and branches in the forest, orchard or construction area, etc
 - toppling trees, primarily in case a rear-mounted tree grab-crane is mounted at the rear of the tractor
 - penetrating objects in the operator's enclosure, primarily in case a winch is mounted at the rear of the tractor.
 - potential risks by using any optional equipment that might be available to deal with those hazards. **NEVER enter or operate these hazardous area without certified Operator Protective Structure installed.**

(2) Notices when starting Engine

- Check each part with reference of section 5,
 "Lubrication and Maintenance" in this manual. If
 necessary, repair or replace it immediately.
 Especially, check if safety protection
 structures or covers are attached originally
 and the bolts and nuts are tightened well.
- Before starting, check again if there are other workers or children around the tractor and implements. Keep a safe distance.
- Start engine and operate the tractor after sitting on the driver's seat correctly with seat belt fastened.
- Place F/R shuttle lever(if fitted), main gear shift lever, range gear shift lever in NEUTRAL and especially check if parking brake is applied.
- Lower implement(s) on ground.
- Ensure that rear view mirrors and the other mirrors (if fitted) are adjusted correctly, and check the operation of the headlights and other lights
- Place PTO lever in NEUTRAL(N) position. (See Fig. 1-5)
- Depress clutch pedal fully (if fitted). If not, the start safety switch is not contacted enough and the engine can NOT be started.



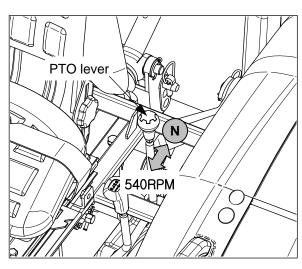


Fig.1-5





▶ Do not start engine in a closed area. The poisonous exhaust gas can cause fatal damage to the driver or persons around.

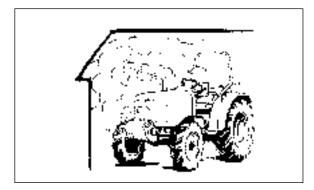
(3) Notices while operating/using the tractor

Ventilation

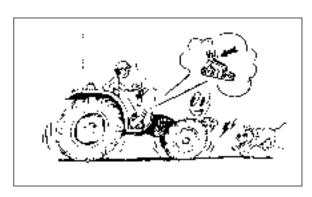




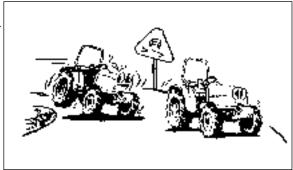
▶ It is very dangerous to work in a closed area. The poisonous exhaust gas may cause serious damage to the human body. If you should work in this area, make sure to ventilate well and put on the protective mask.



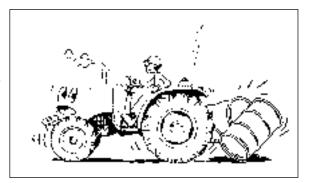
- Noise and Vibration: When working between buildings or in confined spaces, the sound pressure level can be increased. Wear suitable ear protectors in high noise level conditions. When working with equipment in the field, Vibration may intensity from the equipment may be increased. To reduce the harm to the body, take a rest periodically.
- Connect left and right brake pedals while driving on the road. (if fitted)
- DO NOT use differential lock device while driving on the road or turning in the field.
- DO NOT ride your foot on the brake pedal or clutch pedal.



- Lower the driving speed enough before turning a sharp curve. Especially, when you drive the tractor with implements, make the turning radius wider.
- DO NOT start/stop the tractor suddenly. Engage the clutch and brake softly. If not, front wheels can be lifted up and it is very dangerous.
- Do not jump up and down while tractor is moving.
 When getting off or on the tractor, use the grip or handrail and sub step to prevent falls.

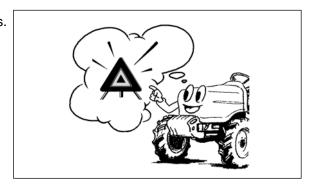


- When driving tractor in reverse, lower the engine speed. Make sure to check if there is any obstacle or person in the rear.
- DO NOT permit other people and especially children approach within working area while operating tractor and equipment.

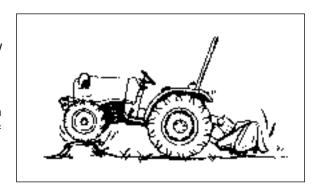


- Obey the traffic rules while driving on public roads.
 Do not exceed the local legal speed limit.
 Use a sing beacon or slow moving vehicle (SMV) to indicate that the vehicle is slow moving.
- If you can not drive the tractor due to a failure, move the tractor to a safe place and install troubled vehicle (safety tripod).

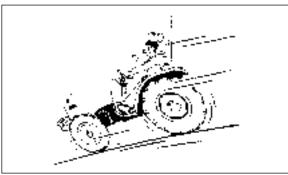
(Day : backward 100m (328 ft) Night : backward 200m (656 ft))



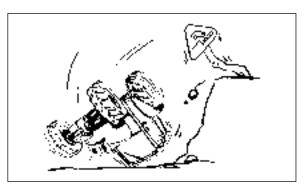
- Do not overuse the fuel, oil, etc and pay attention not to contact the skin directly. Generally, these materials contain harmful materials to the human body. When you work in a area where hazardous chemicals are sprayed, check the cabin filter (if fitted) and replace the filter with suitable one for the purpose being used. To protect the body completely from these harmful materials, wear a safe protection equipment such as mask, and clean the body after working.
- When crossing a high ridge, let down the implement and go straight across the ridge at low speed.
- When connecting implements to the front/rear of the tractor, install the proper additional weights in the rear/front of the tractor to keep the balance of the tractor.



- On a downhill, operate the throttle pedal and brake pedal slowly and DO NOT drive while the transmission gear is in NEUTRAL.
- To climb a steep slope, drive tractor slowly in reverse up the slope rather than forward. It is much safer.
- When turning tractor on a slope, pay attention to safety especially.



- When working at the edge of steep slope, take special care about a turn-over.
- When working, wear the protection equipment and tighten the seat belt.
- If the authorized passenger seat are not installed, keep riders off.



(4) Notices when connecting Implement

- Attach or detach the implement on wide and level ground.
- Do not use the tractor in combination with equipment arbitrary, without having consulted the specific operator's manual provided with the equipment.
- You have to stay clear from the three-point linkage when controlling it. Do not stay between tractor and implement.
- Do not stay between tractor and trailed vehicle for connecting/disconnecting or checking it. Trailed vehicle may roll down or tractor can move reverse.
- When towing the trailed vehicle, use only hitch or drawbar. Do not tow by connecting with any other structures.
- When connecting heavy implements, apply the parking brake and use the wheel chock.
- Do not attach over-weighted implement.



- ▶ When connecting or disconnecting hydraulic coupler, lower implement on the ground, turn off engine and check if the pressure of hydraulic line is released.
- ▶ When installing the implement having big hydraulic cylinders or lines, check oil level in tractor transmission housing after installing the implements.



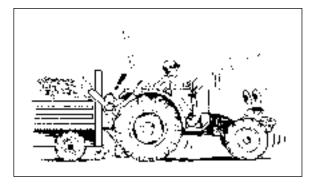
▶ Before connecting or checking the implement, place all the gear shift lever including PTO gear lever in neutral position.



▶ When attaching or detaching the implement, make sure to fix the implement and tighten the three point hitch pins correctly. If not, the serious troubles and injury can occur during the operation.

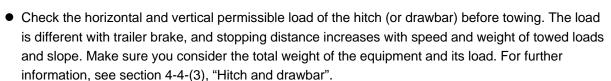


▶ If heavy loaded trailer is connected to 3-point linkage or any structure, it can cause turnover or failure and serious injury. Make sure to use towing hitch or authorized draw bar.



(5) Notices when towing the tractor

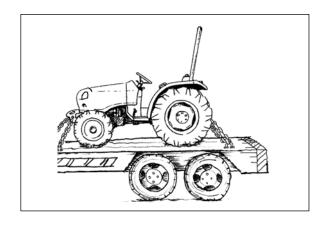
- If your tractor needs to be towed for a short distance, Use the hitch (or drawbar) or front towing hook. Do not connect to other structures such as rear axle, ROPS, front axle, steering components for towing.
- Tractor can be steered for a short distance without engine running, but it will be hard to turn the steering wheel. If possible, run the engine for steering and lubrication.
- When being towed, disengage the 4WD, differential lock, parking brake and place all gear shift levers in neutral position.



- Drive slowly when towing extremely heavy loads.
- Do not tow trailers that are not fitted with an independent braking system.

(6) Notices when transporting the tractor

- When transporting the tractor by truck, trailer, etc, use suitable equipment or facilities to load or unload the tractor.
- Fix the tractor tightly to the vehicle with heavyduty straps or chains.
- When fixing the rear of the tractor, use the hitch or hitch support.
- When fixing the front of the tractor, use the towing hook.
- When driving on public roads, the transporting vehicle must have signs and lights required by local regulation to avoid collision with a vehicle.





- ▶ When fixing the tractor, Do not hook or connect chains to the 4WD shaft, steering cylinder, tie-rod or front axle. These can be damaged by the chain or excessive strain.
- ▶ In case of turbocharger engine (where fitted), cover the exhaust outlet to protect that the turbocharger does not rotate by air without lubrication.

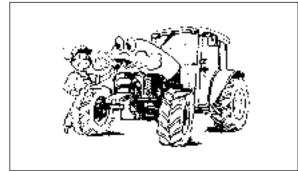
(7) Notices when servicing the tractor after work

• The check and maintenance must be performed after stopping the engine and cooling down the engine sufficiently.

• DO NOT pour water into the radiator or engine when the engine is hot. The engine or radiator may crack.



▶ When opening the radiator cap, hot cooling water or steam may explode. Remove the cap using a thick rag or glove to prevent serious burns.



• Before checking or repairing the hydraulic system and fuel system, make sure the engine is stopped, and all the transmission gears are in neutral, and lower the implements to the ground. The leaks of pressurized fluid can cause a fatal physical injury. If injured by leaking fluid, get medical attention immediately

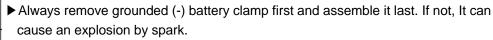






- ▶ Before removing hydraulic pipes or hoses and other parts, make sure to check that hydraulic pressure is relieved completely. The leaks of pressurized oil can cause a fatal physical injury.
- Use proper protection equipments, before servicing hydraulic system.
- ▶ Before connecting or disconnecting the hydraulic quick coupler, lower the implements to the ground, and check that hydraulic pressure is relieved.
- Keep an approved fire extinguisher on your tractor.
- Never fill the fuel tank while the engine is running or the engine is hot. And never smoke or have flames around fuel tank.
- To prevent fire or explosion, keep flames or sparks away from battery. Do not grind or smoke or weld near a battery. For further information, see section 5-11-(3). "Battery handling and Notices".







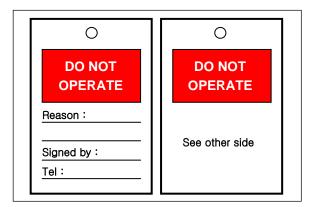






- ▶ The gas generated from the battery is explosive. Keep cigarettes, sparks and flames away from battery. Never check battery charge by placing a metal object across the terminals.
- ▶ Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, clothing and can cause blindness if splashed into eyes. Do not touch the battery or liquid by bare hand without gloves or any protection. Flush eyes with clean water for about 20 minutes If the electrolyte is splashed into the eyes. Get medical attention immediately.
- ▶ Do not short circuit the battery posts with metal items.
- ▶ Battery post, terminals and related accessories contain lead and lead compounds. MUST WASH YOUR HANDS AFTER HANDLING.

- Do not attempt to remove or unfasten the air conditioning components arbitrary. There is a possible to be severely frostbitten or injured by escaping refrigerant. Contact your authorized dealer to work air conditioning systems.
- Before servicing the tractor, attach a "DO NOT OPERATE" warning tag to the tractor in an area that will be visible.



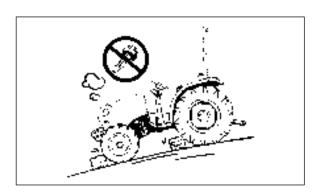
- It is advisable to keep a **First-aid kit** on your tractor.
- Keep the area used for servicing the tractor clean and dry. Wet or oily floors are slippery. It can be dangerous when working with electrical equipment.
- Remove all litter or debris from the tractor. Especially check the engine area and exhaust system.

(8) Notices when handling Diesel Fuel

- Do not mix gasoline, alcohol or blended fuels to diesel fuel. These mixtures are explosive in fuel tank.
- Never remove the fuel cap or refuel with the engine running or hot.
- Do not smoke while refueling the tractor. Keep any type of flame away.
- Maintain control of the fuel filler nozzle when filling the fuel tank.
- Do not fill the fuel tank to capacity. Fill only to the bottom of the filler neck to allow room for expansion.
- Wipe up spilled fuel immediately and always tighten the fuel tank cap securely.
- If the original fuel tank cap is lost, replace it with an approved one.
- Never use fuel for cleaning purposes.
- Arrange fuel purchases so that summer grade fuels are not held over and used in the winter.
- Before operating with Bio-Diesel, contact your authorized dealer for information relating to the use and storage of Bio-Diesel.

(9) Notices when leaving the tractor

- Stop the tractor on level ground.
- Place the transmission gear in neutral and put PTO gear lever to neutral position.
- Lower the mounted implements on the ground.
- Apply the parking brake.
- Stop the engine and remove the ignition key.
- Before you leave the operator's station, wait for engine and all moving parts to stop.
- Have to apply the wheel chock when parking the tractor on a slope unavoidably.





- ▶ When parking the tractor on a slope unavoidably while attaching the loaded equipment, the tractor may move even if the parking brake is applied. Apply the wheel chock and low speed transmission gear as follow.
- -. Mechanical : downhill ⇒ Reverse 1gear / uphill ⇒ Forward 1gear

(10) Notices relating to Toxic substances

- Exhaust gas and some its constituents of the Diesel engine are known to the State of California to cause cancer, birth defects, and other reproductive harm. (California proposition 65)
- Battery post, terminals and related accessories contain lead and lead compounds. MUST WASH YOUR HANDS AFTER HANDLING.

(11) Noise Levels

 This tractor has an equivalent continuous A-weighted sound pressure level at the operator ear as below.

	K5047 / K5055
Driver-perceived sound level	92.0dB(A)
Test method	2009/76/EC - Annex I

(12) Vibration Levels

- The Whole Body Vibration (WBV) level will depend on a lot of parameters. The properties of the track or field surface and the driving speed will be the main parameters.
- The vibrations of the tractor cause discomfort to the driver and in some cases his health and safety may be at risk.
- Adjust the driver's seat to suit operator's size and weight.
- Do not start or stop the tractor quickly. Operate the tractor smoothly.
- The vibration level measured on seat for tractors described in this manual are as below.

	K5047 / K5055		
Vibration lovel (m/s2)	Driver's seat		
Vibration level (m/s²)	2.7		

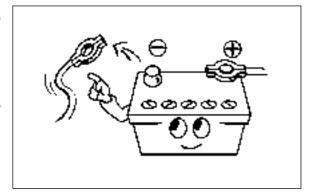
1-3. Long-term storage

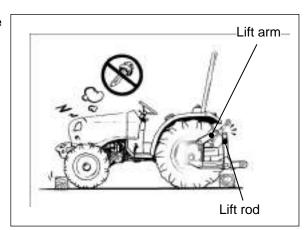
(1) Preparation for storage

- Wash the tractor cleanly and follow the procedure as below.
- Apply grease or lubricant oil or spray paint to the non-painted metal to avoid corrosion. Keep the tractor in a covered, dry and well-ventilated place. Temperature: 10 °C ~ 35 °C (50°F ~ 95°F)
 Humidity: 45% ~ 70%
- Place all controls, including electrical switches, in neutral position and apply the wheel chock to the tires and disengage the parking brake.
- Check the lubricant capacity of each part and if the engine oil has exceeded 100 hours of work, change the oil and run the engine for 5 minutes at idle rpm.
- Drain the engine coolant completely. If the engine coolant is anti-freeze solution, it is not necessary to drain but check its concentration.
- Fill the fuel tank full with fuel.
- Loosen all drive belts and clean the air cleaner.
- Loosen the rubber plug (if fitted) under the clutch chamber to drain water.
- Remove the battery, clean the cover and smear the terminals with grease. Place the battery in a ventilated place not less than 10°C (50°F) and away from direct sunlight.
- If possible, fit stands or other suitable supports under the axles to raise the wheel off the ground. And let the air out of the tires. If not, check the tire pressure from time to time.
- Remove the lift rod and place the lift arm to the highest position to protect the cylinder.
- Remove the ignition key.
- Cover the tractor with a non-water-proof cover.
- If the implements are attached, lower the implements on a support off the ground.



▶ When restarting the engine at the end of long-term storage, follow the instructions of "Preparation for Reuse". (See next page)





(2) Check & Maintenance during storage

- Apply grease or lubricant oil to non-painted metal to avoid corrosion.
- Check the leakage of fuel, oil and coolant. If necessary, repair the damaged part.
- Check the tire air pressure and maintain the proper pressure.
- The battery should be charged about once a month not to be discharged entirely.



- ▶ As the electrolyte of battery is sulfuric acid, it is emits the explosive and poisonous gas. It is strong enough to burn skin, clothing and can cause blindness if splashed into eyes.
 - Keep the sparks and flames and cigarettes away from the battery.
 - When handling the battery, wear safety glasses to protect the eyes.
 - If the electrolyte contacts the eyes and skin, wash with water immediately and go to see a doctor.
- ▶ When removing and storing battery, select dry and cool place out of reach of children.

(3) Preparation for Reuse

* When using first after long-term storage, check each part as below.

- Check the damaged part or loosen part
- Check the leakage of fuel, coolant, engine oil, transmission and front axle oil.
- Check the level and density of the engine coolant.
- Check the level of engine, transmission, rear and front axle oil, and fuel.
 (For further information, refer to the section 5, "Lubrication and Maintenance" in this manual.)
- Check all drive belts carefully, paying particular attention to the point where the straight run of the belt starts to bend around the pulley. Check the V-groove in the pulley for corrosion.
- Electric system check
 - Is there any open circuit or any other problem in the wiring?
 - Is there any problem of the instruments?
 - Is the charging state of the battery sufficient?
- After starting engine, check the engine oil pressure indicator and battery charging indicator in the instrument panel. These indicators must be turned off, while the engine is running.
- Warm up the engine at a fast idling speed (suggest 1000/1500 rpm) until normal operating temperature is registered, and check for oil, fuel and coolant leakage.

1-4. Notices for "Use & Disposal" related to the environment

Soil, Air and Water are essential elements for human life. To contribute to environment preservation of the Earth, we are trying to minimize the environment pollution necessitated by general business activity such as product design, manufacturing, distribution, etc.

Several substances and products derived from chemical and petrochemical products are major portion of environment pollution and must be disposed of according to environment laws or related regulations, and common sense.

We'd like to notify the following items for "Use & Disposal" related to environment preservation.

Avoid the overload work after reading the Operator's Manual.
 Overload work may reduce the life of the product as well as the unburned exhaust gas

occurred during overload work becomes the major cause of air pollution.

- 2. When you replace various oils (engine, transmission, anti-freeze solution) directly, do not throw the exhausted waste oil to any place.
 - This may pollute the soil and water seriously and also is prohibited legally. If violating, you would be responsible for that by civil or criminal case. The waste oil must be disposed according to the environment laws.
- 3. Use the product according to the Operator's Manual and if the life of product ended, do not throw away (or dispose) to any place. The rust water or oil coming from the disposed product may cause the pollution of soil or water. Thus, the wasted product must be disposed lawfully, contact your authorized dealer nearby.
- 4. Modern lubricants contain additives. Do not burn the disposed oil or fuel in conventional heating systems.
- 5. When you drain or fill the fuel, lubricants oil and coolants, do not left to be absorbed into the ground. They must be collected and disposed in a suitable manner.
- Do not adjust the setting of the fuel delivery system. This will alter the emission of exhaust fumes.

1-5. Symbols

The followings show the symbols and its meaning used for the tractor.

	Refer to operator's manual.	N	Gear Neutral	•	Low speed
	Caution!	+	Forward/Rearward	4	High speed
= +	Battery charging	†	Forward		Engine speed control (throttle)
	Fuel level	+	Backward		Engine speed control (throttle)
	Fuel filter		4WD connection	⇔	Turn signal light
	Engine coolant temperature	 	4WD disconnection	句吟	Direction indicating light
→○ +	Transmission oil pressure	₹	Quick turn (Optional)	-\\\\\\	Light switch
→	Engine oil pressure	<u>6</u> €	Cruise drive (Optional)	=00=	Side lights
00	Diesel engine preheat	<u>6</u> 0	Cruise drive release (optional)	≣ O	Headlights (downward)
(P)	Parking brake		Position control (Up)		Headlights (upward)
	Emergency lights		Position control (Down)		Work light
	Engine start		Draft control (Deep)	b	horn
(STOP)	Engine stop		Draft control (Shallow)		Window wiper
	PTO stop	O	Cylinder rod (shorten)		Window wiper / Washer (front)
	PTO in operation	1111	Cylinder rod (extend)		Window wiper / Washer (rear)
	Differential lock device	(111111)	Cylinder rod (floating)		One-side brake

1-6. Safety Decals

(1) Handling and Maintenance of Safety Decals

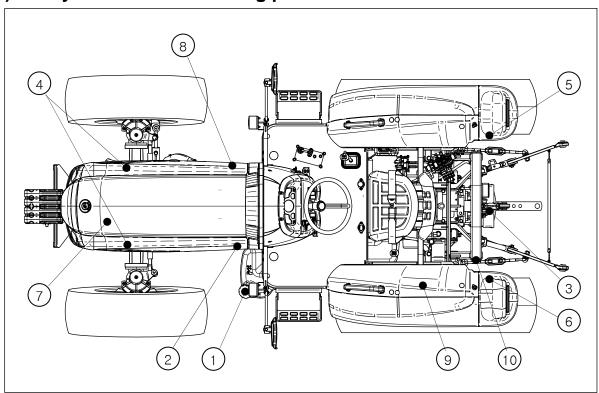
- For intended use and personal safety of the operator, the safety decals (labels) are attached to the parts related with safety operation.
- Before operating or maintenance of the tractor, check the position and read the instructions carefully.
- If you find "Read operator's manual" symbol (1) in the decals, refer to the appropriate page of the operator's manual for further information regarding operation, adjustment and maintenance.



Caution

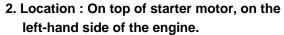
- ▶ The instructions described on the safety decals are very important for the safety of the operator and workers around. If ignored, it may cause the death or serious injury.
- ▶ If the decals are dirty, wash them with soap water and wipe with soft rags. Do not use the thinner, acetone, or other harsh chemicals as it may erase the instructions.
- ▶ If the decal is detached or damaged, replace it with a new one on original position.
- ▶ When cleaning the tractor with pressurized water, the decals can be detached.
- ▶ If a decal is on a part that is replaced, make sure the decal is attached on the new part.

(2) Safety Decals and Attaching position



1. Location: On top of the Fuel Cap

- Low sulfur diesel fuel only.
- Do not smoke while refueling and keep any type of flame away.
- Part No.: 40008817



- RUN OVER HAZARD
- To prevent serious injury or death;
- Start only from seat with transmission and PTO in neutral.
- DO NOT short across starter terminals to start engine.
- Part No.: 40195651

3. Location: On top of rear PTO guard.

- Rotating driveline contact may cause serious injury or death.
- Keep all driveline, tractor and equipment shields in place during operation.
- Part No.: 40195650

4. Location : On the left/right-hand side of the fan shroud.

- Keep hands clothing away from the rotating fan and belts.
- Contact with moving parts may cause loss of fingers or a hand.
- Failure to comply could result in death or serious injury.
- Part No.: 40239638

5. Location: On top of the right-hand fender.

- HIGH PRESSURE FLUID HAZARD
- To prevent serious injury or death;
- Relieve pressure on system before repairing, adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks, use wood or cardboard instead of hands.
- If hydraulic fluid or fuel sinks into skin, seek medical attention immediately.
- Part No.: 40195652







WARNING

- Rotating driveline contact may cause serious injury or death.
- Keep all driveline, tractor and equipment shields in place during operation.

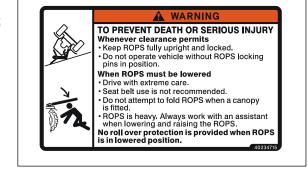
4019565





6. Location: On top of the left-hand fender.

- TO PREVENT DEATH OR SERIOUS INJURY;
- Keep Roll-over Protective Structure fully upright and locked.
- Do not operate vehicle without ROPS locking pins in position.
- When ROPS must be lowered:
- · Drive with extreme care.
- · Seat belt use is not recommended.
- Do not attempt to fold ROPS when a canopy is fitted.
- ROPS is heavy. Always work with an assistant when lowering or raising the ROPS.
- No roll-over protection is provided when ROPS is in lowered position.
- Part No.: 40008817



7. Location : On top of air cleaner support.

- TO PREVENT DEATH OR SERIOUS INJURY; High pressure steam and hot water. Remove filler cap with extreme care.
- Failure to comply could result in death or serious injury.
- Part No.: 40239637

8. Location : On the right-hand side of Bandframe.

- TO PREVENT SERIOUS INJURY OR DEATH;
 Beware hot part. Keep clear of muffler to avoid injury.
- Failure to comply could result in serious injury.
- Part No.: 40239636





9. Location: On top of left-hand fender.

① CAUTION

- PTO selector & lever must be in OFF position to start engine.
- Do not operate on hard surfaces with 4WD engaged.

2 WARNING

- TO PREVENT SERIOUS INJURY OR DEATH:
- After first hour of operation and daily thereafter, check front and rear wheel lug nuts and bolts for proper torque.
- PTO keep hands, feet and clothing away from PTO & other moving parts.
- Disengage PTO and shut off engine before servicing tractor or implements, or attaching / detaching implements.
- Keep all safety shields in place for your protection.
- Pull only from approved drawbar or lower links of 3-point hitch at horizontal position or below.
- Lock tractor brake pedals together for travel on roads or highways.
- Always apply parking brake and shift transmission to neutral before dismounting.
- Always use a seat belt when you operate the tractor.
- Allow no riders on tractor or implements.
- Do not use a seat belt when operating with folding ROPS in lowered position.
- Engine exhaust fumes can cause death or sickness. Always try to work in a ventilated area.
- Disengage the differential lock when turning the tractor. Always disengage the differential lock when driving on roads.
- Depress on or both brake pedals to disengage the differential lock.
- Failure to comply could result in death or serious injury.
- Part No.: 40195656

CAUTION

- PTO selector & lever must be in "OFF" position to start engine.
- Do not operate on hard surfaces with 4WD engaged.

▲ WARNING

To prevent serious injury or death

- After first hour of operation and daily thereafter, check front and rear wheel lug nuts and bolts for proper torque.
- PTO keep hands, feet and clothing away from PTO & other moving parts.
- Disengage PTO and shut off engine before servicing tractor or implements or attaching or detaching implements.
- Keep all safety shields in place for your protection.
- Pull only from approved drawbar or lower links of 3-point hitch at horizontal positon or below.
- Lock tractor brake pedals together for travel on roads or highways.
- Always apply parking brake and shift transmission to neutral before dismounting.
- Allow no riders on tractor or implements.



To prevent serious injury or death

- Always use a seat belt when you operate the tractor.
- Do not use a seat belt when operating with folding ROPS in lowered position.



- Engine exhaust fumes can cause death or sickness.
- Always try to work in a well ventilated area.

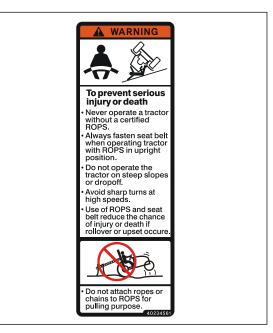


- Disengage the differential lock when turning the tractor.
- Always disengage the differential lock when driving on roads.
- Depress one or both brake pedals to disengage the differential lock.

4019565

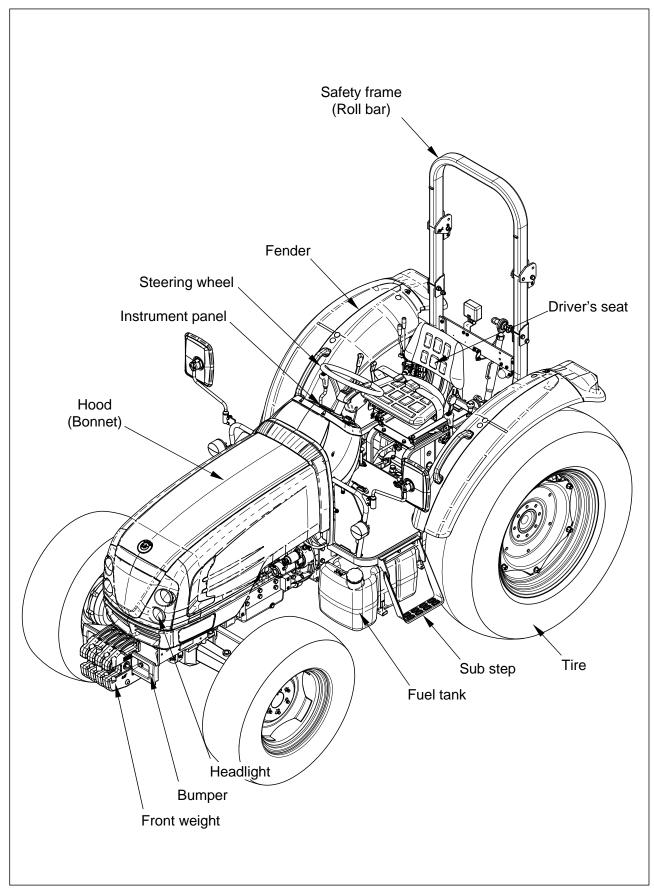
10. Location : On the left-hand side of the ROPS frame.

- TO PREVENT SERIOUS INJURY OR DEATH;
- Never operate a tractor without a certified ROPS.
- Always fasten seat belt when operating tractor with ROPS in upright position.
- Do not operate the tractor on steep slopes or drop-off.
- Avoid sharp turns at high speeds.
- Use of ROPS and seat belt reduce the chance of injury or death in roll-over or upset occur.
- Do not attach ropes or chains to ROPS for pulling purpose.
- Failure to comply could result in death or serious injury.
- Part No.: 40234561



2. Instruction for safe operation

(1) The name of each part

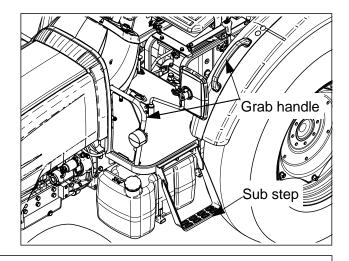


2-1. Boarding and Exiting the tractor

(1) Boarding the tractor

1 Roll-Bar type

- Whenever possible, use the left-hand side step for entering.
- When boarding the tractor, use the sub-step and grab handles in the right figure.
- Do not jump up/down for your safety.

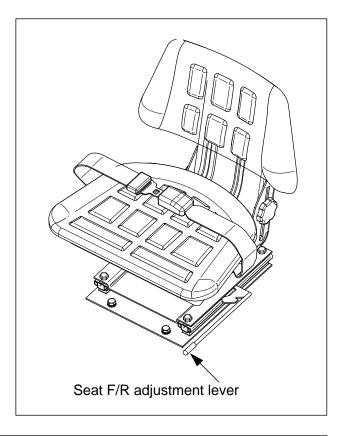




- ▶ Operator's condition: The persons such as patients, drunks, people on drugs, etc. are never allowed to operate this tractor.
 Only well educated operators can use the tractor after learning the usage of controls for moving, stopping, turning and other operating.
- ▶ Do not grasp the gear levers when entering the cabin from the right-hand side.

(2) Seat adjustment

- Before operating the tractor, adjust the position of driver's seat according to body size and length.
- Seat F/R adjustment lever
- 1) After sitting on driver's seat, move the seat F/R adjustment lever up to release the lock.
- 2) Move the driver's seat forward or backward depending on driver's body length.
- 3) Release the seat F/R adjustment lever and check the seat is locked.

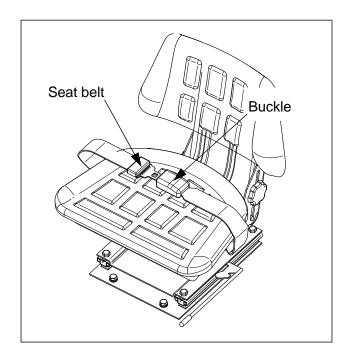




- ▶ DO NOT put your hand under the seat while sitting. It may cause a injury by seat suspension.
- ▶ DO NOT adjust the seat position while driving.

(3) Seat belt

- Always wear the seat belt before operating the tractor and adjust the belt to fit the operator.
 - 1. Insert the seat belt end into the buckle until a "click" indicates it is properly engaged.
 - 2. To remove the seat belt from the buckle, press the red release button on the buckle.
- Check the seat belt regularly. If damaged or frayed, replace it with a new one.





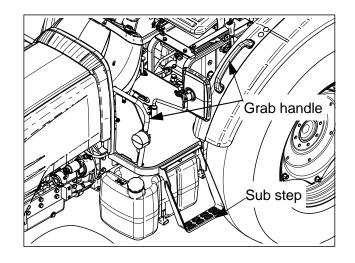
▶ If not wearing the seat belt, it may cause serious injury in case of accident.



- During operation, it must be required to wear seat belt with a cab or safety frame installed.
- After wearing the seat belt, adjust the belt to fit the operator.
- ▶ If safety frame is folded down for frame model, do not wear the seat belt.

(4) Exiting the tractor

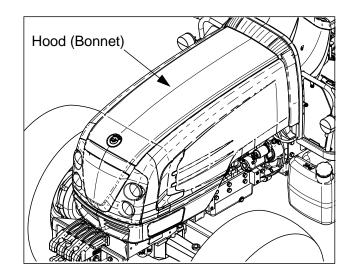
- Whenever possible, use the left-hand side step for exiting.
- When exiting the tractor, use the sub-step and grab handles in the right figure.
- Do not jump up/down for your safety.



2-2. Safety device

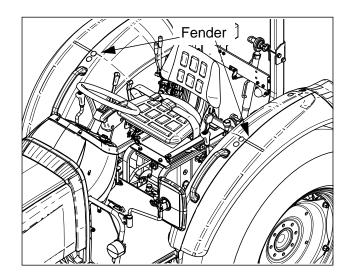
(1) Hood (Bonnet)

- Hood is a protection device to prevent an unintended access to the rotating parts around engine; cooling fan, fan belt and rotating shaft and pulley.
- Do not remove and modify the hood.



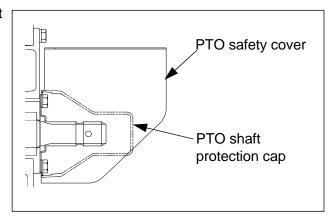
(2) Fender

- Fender is a protection device to prevent an unintended access to the rear tires and to prevent mud from irrupting to the driver.
- Do not remove and modify the fender.



(3) PTO safety cover and protection cap

- PTO safety cover is a protection device to prevent an unintended access to the PTO shaft and to prevent an accident causing by the rotating drive shaft.
- Do not remove the PTO safety cover. If the PTO safety cover or protection cap is damaged or removed, replace it with a genuine part.
- Do not step on the PTO safety cover.
- After using the PTO shaft, apply grease and insert the PTO shaft protection cap.





▶ If you contact the rotating shaft, it may cause a severe injury.

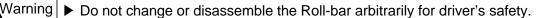


- DO NOT touch shaft which is rotating.
- DO NOT remove the safety cover.
- Avoid loose clothes that can easily be rolled up in the rotating shaft.

(4) Foldable Safety frame (Roll-bar) (ROPS)

- The Roll-Over Protective Structure (ROPS) is integrated and certified structure for driver's safety. Do not modify and remove its any part of the structure.
- When folding the Roll-bar for special work, comply with the following instructions.
- 1. Park the tractor on a level surface.
- 2. Loosen the bolts ①, ② on both sides. It is not necessary to remove it completely.
- 3. Pull out the pins on both sides and fold upperframe down carefully. Be careful of the possibility that your body might be hurt by sudden folding due to its weight.
- 4. Insert the pin into the holes in order to fix the Rollbar.
- 5. Tighten the bolts ①, ② firmly on both sides.
- Do stand the Roll-bar up originally as soon as your special work is finished.







- ▶ Unless the Roll-bar is installed correctly, it may cause a serious accident on tractor when being overturned.
 - Be sure to stand the Roll-bar up firmly and assemble the bolts, pins and nuts correctly.



- When folding the Roll-bar;
 - Do cooperate with more than 2 people when folding or standing up the Roll-bar as it's heavy.
 - Be careful not to be injured by sudden folding, which might occur when folding or standing up the Roll-bar, results from its weight.
 - Do not wear seatbelt when the Roll-bar is folded down.

