

FOREWORD

Congratulations, and welcome to the fabulous world of **RX6640/7340** ownership, where serious work is made fun again!

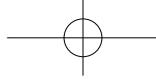
This versatile tractor is a culmination of the entire tractor and diesel knowledge gained by the **Daedong IND. Co., LTD** over the years since 1947 and has been designed with the finest materials, under rigid quality control standards.

Knowledge of tractor operation is essential for many years of dependable service and reliability. To help new owner's familiarize themselves with the **KIOTI RX6640/7340**, an owner's manual with helpful information regarding safe operation and maintenance has been provided with your purchase. If the information you seek is not found in this manual, please contact your authorized **KIOTI** dealer for assistance.

Please feel free to contact **KIOTI** with your questions/concerns.

< NOTE >

- Read this manual carefully and keep it handy for future reference.
- When leasing or transferring this tractor, deliver this manual together with the tractor.
- The specifications in this manual are subject to change without notice.



ISO 3600 STANDARDS

This manual was compiled in compliance with the ISO 3600, standards and the instructions contained here comply with the requirements of the Machinery Directive 2010/52/EU in force in the European Community. For tractors sold or used outside the European Community, local laws will prevail.

Main protections on the tractors discussed in this manual.

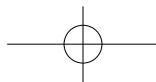
DESCRIPTION	CABIN
1. ROPS (Protection against overturning)	Yes
2. FOPS (Protection against objects falling from above)	No
3. OPS (Protection against penetration of objects from sides) protection against hazardous chemicals	No (Category I)



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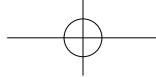


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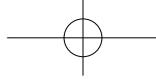


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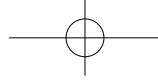


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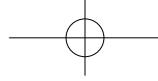


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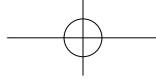


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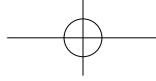


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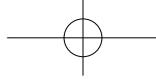


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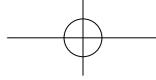
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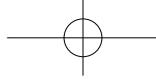
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SAFETY AND VEHICLE DAMAGE WARNING

This manual includes information titled as **DANGER**, **WARNING**, **CAUTION**, **IMPORTANT** and **NOTE**. These titles indicate the following:

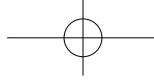
 DANGER	<p>This indicates that a condition may result in harm, serious injury or death to you or other persons if the warning is not heeded. The signal word “DANGER” is to be limited to the most extreme situations.</p>
 WARNING	<p>This indicates that a condition may result in harm, serious injury or death to you or other persons if the warning is not heeded. Follow the advice provided with the warning.</p>
 CAUTION	<p>This indicates that a condition may result in damage to your vehicle or its equipment if the caution is not heeded. Follow the advice provided with the caution.</p>
 IMPORTANT	<p>This mark indicates emphasis on notable characteristics of working procedures, and information about technology for easier operation.</p>
 NOTE	<p>This indicates that interesting or helpful information is being provided.</p>



UNIVERSAL SYMBOLS

Various universal symbols have been used on the instruments and controls of your **KIOTI** tractor. Below is a list of the universal symbols and their meanings.

 Fuel-level	 DPF Regeneration underway lamp	F F-Gear
 Engine coolant-temperature	 Emission Failure	CL CL-Gear
 Parking brake	 Comfort clutch	CM CM-Gear
 Battery charging condition	 Automatic shifting	CH CH-Gear
 Engine oil-pressure	 Four-Wheel Drive-ON	M M-Gear
 Turn signal	 QT lamp	 Auto draft work light
 Power take-off clutch control-off position	 CRUISE PTO	 Auto level work light
 Engine Check	N Neutral position	 Auto tilling depth work light
 Headlight-high beam	H H : High travel light	 Cruise
 Water-In-Fuel warning lamp	L L : Low travel light	 Turn up light
 DPF Regeneration warning lamp	R R-Gear	 Back up light



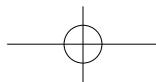
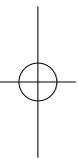
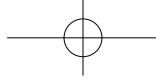
UNIVERSAL SYMBOLS

 Tail lamp

 ECO

 Shut down

 Single brake light



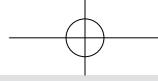


SAFETY PRECAUTIONS

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1

1



PRECAUTIONS BEFORE OPERATION

GENERAL PRECAUTIONS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, use these safety precautions, and pay attention to the job at hand. If you can prevent an accident, your time will have been well spent.

The individuals should never be allowed to operate this machine.

- Those under the influence of alcohol or drugs.
- Pregnant women or individuals who may have physical or cognitive impairments that may inhibit their ability to enter/exit or operate the machine safely.
- Individuals who are under the age of 18.
- Individuals who do not possess a valid driver's license.
- Those who are fatigued, sick or

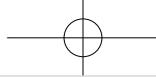
under the influence of medicine.

- Individuals who have not read and understand the contents of this owner's manual.
- Individuals who have not been trained on the safe and proper operation of this equipment.

Do not operate the machine if you are sleepy or extremely tired. Failure to do so could lead to an accident.

NOTE

- **Local, state and provincial regulations may vary on operator requirements and guidelines. Follow all guidelines and laws as set forth in your local, state or provincial regulations.**



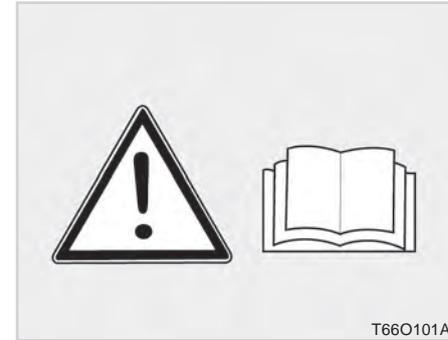
This tractor is designed for use in agricultural settings and applications. This tractor should be used in conjunction with equipment designed and manufactured for agricultural applications that are intended to be pulled by a drawbar or attached to a 3-point hitch of the proper size and category matching to this unit and if needed, powered by a type one 540 RPM shaft or a type two 1,000 RPM shaft.

Use other than the specified cannot be covered by warranty. The manu-

facturer is not liable for any damage resulting from unauthorized use, and such action can lead to a dangerous situation to a user. Authorized use means complying with operation, service and repair standards set forth by the manufacturer as outlined in this manual.

This tractor should be operated by a well-trained and skilled person familiar with the machine and the information provided in this manual. Service and maintenance should be performed by an Authorized **KIOTI** Dealer or a skilled technician familiar with this tractor.

Always follow local, state or provincial regulations regarding health, safety and traffic regulations when operating or maintaining this equipment. The manufacturer is no liable for any damages or injuries resulting from the improper use, maintenance or unapproved modification of this tractor.

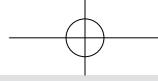


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1. It is recommended that you read and understand this entire manual before operation of your new tractor. Failure to do so could result in accidents or injury.

Persons have read and understand this manual and are properly.

2. Only persons who are properly trained should be allowed to operate the tractor.
3. Read and follow all warning labels and decals affixed to the tractor and included in this manual.



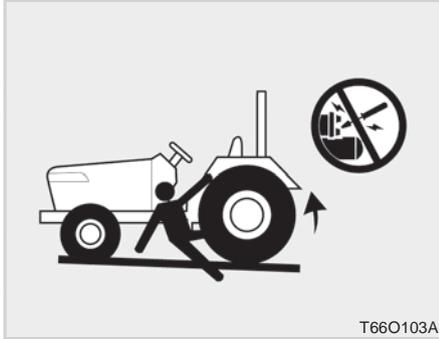
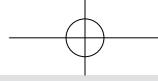
4. Replace any missing or damaged decals as soon as it is practical. A list of decals is shown on page 1-31 through 39.



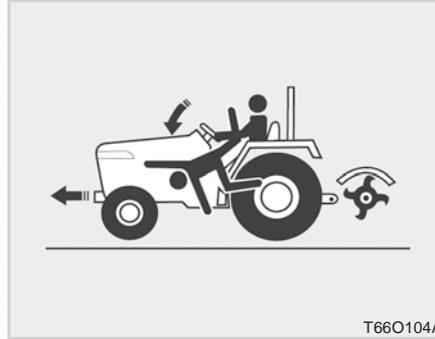
5. Keep safety decals clean of dirt and debris.
6. Watch where you are going at all times so that you are able to avoid obstacles that may make contact with your tractor or may cause personal injury.
7. When starting the tractor make sure you are seated in the operator's station with your seatbelt fastened. Always visually survey the area and make sure the parking brake is engaged, the tractor is in neutral, the clutch pedal and brake pedals are

depressed and there are no people around the tractor before starting the engine to avoid accidents .

8. Before making reverse movements with your tractor, you should always check to see that the path around and behind the tractor is clear of obstructions or people.

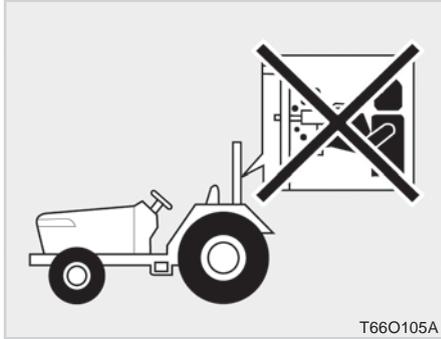


9. Never operate this tractor or any other agricultural equipment while under the influence of alcohol, drugs or while fatigued.
10. When working with or in the vicinity of other tractors or mobile equipment, be sure to communicate with the other operators so everyone knows which operations and work will be performed simultaneously. Always watch for other moving equipment or persons and be sure to yield the right of way to prevent accidents.
11. Never start your tractor by shorting across the starter solenoid.

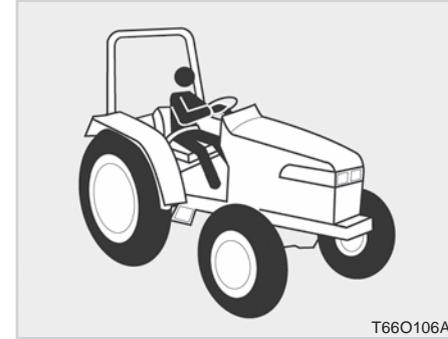


12. Never start the engine while standing on the ground.
13. Only the operator should ride on the tractor is equipped with a factory installed instructor seat with seatbelt. Always remember that the instructor seat is designed and intended to be used as an instructional aide to assist trained and seasoned operators with the training and development of new operators on the safe operation of the machine. It is not intended to carry passengers or be utilized as a method of transportation.

14. Keep bystanders away from the tractor while in operation.
15. When getting on and off the tractor, handholds and step plates should always be used. This will help to prevent accidental slips, trips & falls.
16. Be sure to scrape off mud or soil from your shoes before mounting the tractor.

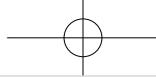


19. No alterations or modifications should be made to your **KIOTI** tractor .



17. All persons using this tractor should have read and understood this manual carefully. **DO NOT** operate this machine without first being trained by a qualified operator or the Authorized **KIOTI** Dealer on the safe operation of the machine.
18. Never get off the tractor without setting the brake, placing the transmission in neutral without setting the parking brake, lowering the implement to the ground and shutting of the tractor.

20. Before starting your tractor you should depress the clutch and make sure that all shift levers are in the neutral position and parking brake is applied.



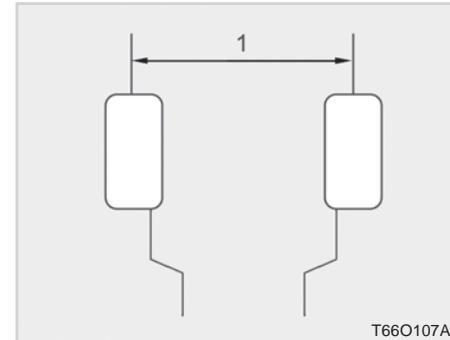
21. For your safety, it is recommended to only operate this tractor with a factory installed ROPS locked in the upright position or a factory installed cabin.

NOTE

- Always use the seat belt when the tractor is equipped with a **ROPS** and **CAB**. Never use the seat belt when tractor is not equipped with a **ROPS**. (**ROPS**: Roll-Over Protective Structures)

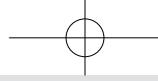
WARNING

- **A ROPS (CAB) structure should never be modified by welding, cutting or grinding as this can weaken the ROPS structure. If any component of the ROPS is damaged or removed, operation of the tractor should cease immediately until the ROPS structure has been repaired with new parts or replaced.**
- **If the ROPS structure is loosened or removed for any reason, operation of the tractor should cease immediately until the ROPS structure has been returned to its original position and all bolts have been properly torqued.**
- **Operating the tractor without a properly installed ROPS (cab) structure could cause severe injury or death**

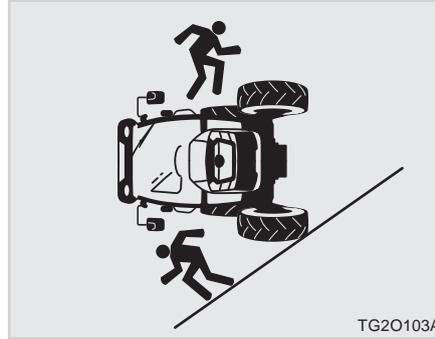


(1) Tread

22. Use extra caution when driving tractors with narrow tread setting on slopes on uneven terrain.



RISK OF OVERTURNING



against the floor securing your bottom and back into the seat. Never attempt to get off the seat or the tractor while it is still in motion or rolling. Once the tractor has come to a complete stop and is stable, you may slowly open the nearest door, if equipped, remove your seatbelt and begin to exit the tractor.

⊕ IMPORTANT

- **These are a few representative examples of situations that could potentially lead to a machine roll-over and safe operating procedures to help avoid the risk.**

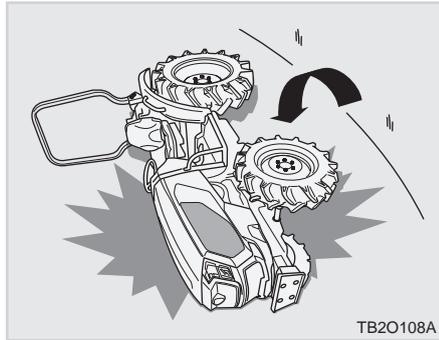
⚠ WARNING

- ***The cabin on this tractor is not certified for spraying applications where harmful chemicals or vapors may be inhaled. Never operate this tractor in areas contaminated with harmful chemicals or vapors without the use of approved personal safety equipment to protect the operators lungs, eyes and skin from dangerous or harmful chemicals and vapors.***

Always use seat belt when the tractor is equipped with a **ROPS** and **CAB**. Never use the seat belt when tractor is not equipped with a **ROPS**. (**ROPS**: Roll-Over Protective Structures).

For your safety, tractors must always be equipped with safety belts designed and manufactured in accordance with the manufacturer's specifications.

In case of roll-over, hold the steering wheel and firmly press your feet



Tips to help avoid a loss of control or machine roll-over :

- Increasing the wheel tread setting will improve stability on slopes and uneven terrain. adjust the wheel tread settings to the maximum permissible width based on the following conditions:
 - terrain
 - implements/attachments used
 - work performed
 - load carried on the machine

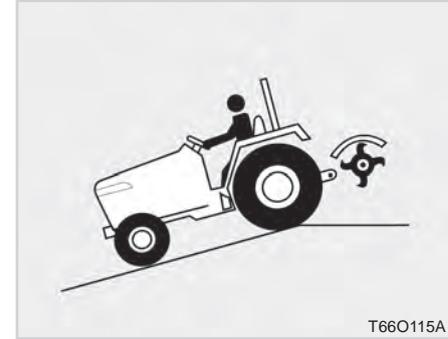
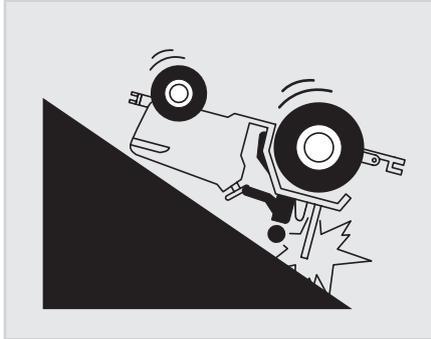
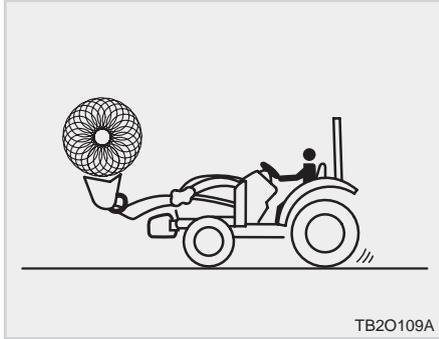
- Lock both brake pedals together before driving on road.
- Reduce your speed according to work conditions.
- If the tractor is equipped with a front loader, carry the bucket and load as low as possible at all times
- Reduce speed when hauling a load or towing an implement.
- Slow down before making wide turns to prevent loss of control or roll-over.
- Travel slowly on rough or uneven terrain to prevent the tractor from bouncing or jumping.
- Never haul or tow more than the manufacturer's recommended capacities. Towing or hauling loads exceeding the maximum recommended capacity can lead to a loss of control, jack-knifing, roll-over or equipment damage.

- When hauling or towing, travel slowly and use extreme caution when going downhill. Use the same gear for downhill descents as you would for uphill climbs. Use the engine throttle to control speed. Make sure the tractor is securely placed in gear and the clutch is released before beginning the downhill descent. Engage 4wd when on soil or gravel roads for improved traction.

⚠ WARNING

- ***NEVER disengage the clutch or attempt to shift gear after you have started downhill.***

1

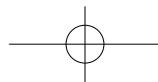


- Always travel up and down slopes, never sideways. Always keep the load facing up the slope. Never place the load facing downward as a loss of traction may occur resulting in loss of control, over-turn.
- Do not put any overloads on a front implement or a trailer. Use suitable counter-weights to keep the tractor stable.
- NEVER use your tractor to round up farm animals.



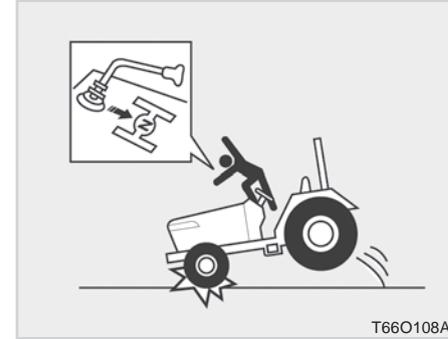
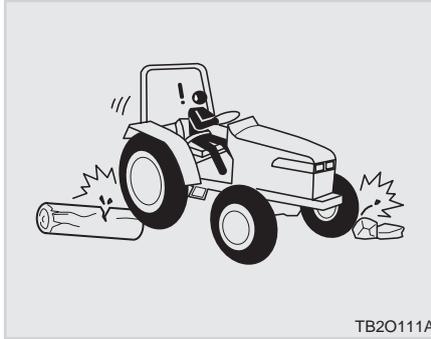
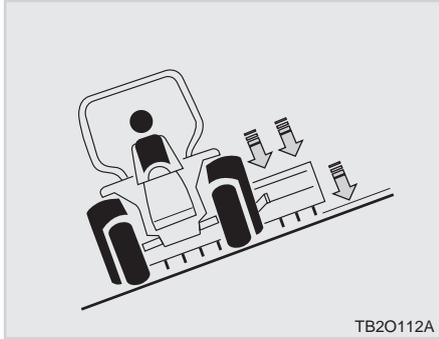
- When operating near ditches and banks, always keep your tractor behind the shear line. Avoid ditches, embankments and river-banks which might cave in.

- Always drive straight up or down a slope, never across it. When traveling up or down a slope, keep the heavy end of the tractor and the implement pointed uphill.





PRECAUTIONS DURING OPERATION WHEN STARTING THE ENGINE

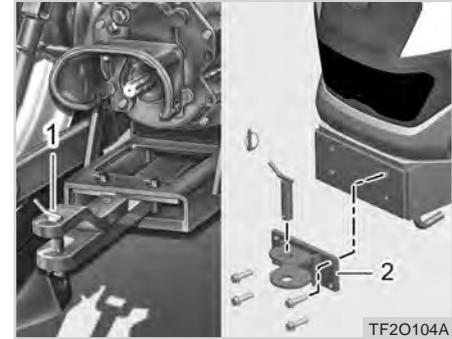
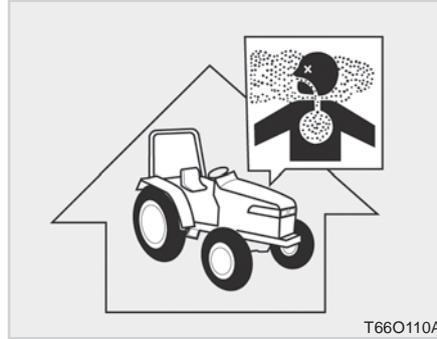


1

- If you must drive across a slope, keep attachments close to the ground and do not raise them. When traveling with mounted implements, keep the implements on the uphill side if possible. Keep the implements close to the ground and do not raise them.

- Avoid crossing steep slopes if possible. If you must do so, travel slowly and avoid any holes or depressions on the downhill side. Avoid any stumps, rocks, bumps or raised areas on the uphill side.

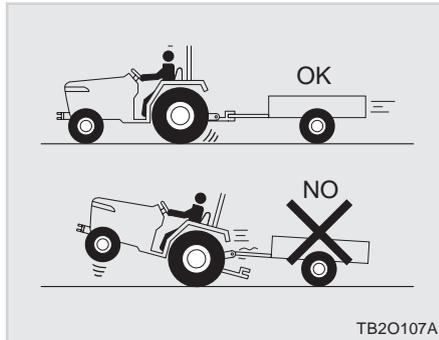
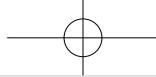
1. Avoid accidental contact with gear shift levers while the engine is running. Unexpected tractor movements could result in injury, damage to equipment or property.



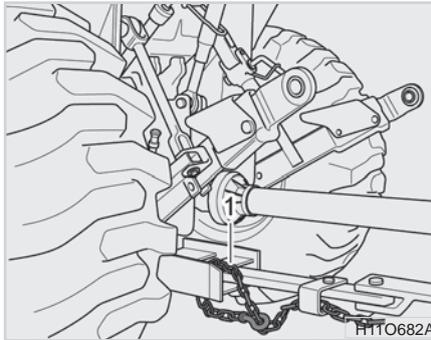
2. Do not park your tractor on a steep incline. Always place the tractor in neutral, engage the parking brake and shut the engine off before dismounting the tractor.

3. Do not operate your tractor in an enclosed building without proper ventilation. Exhaust containing carbon monoxide can cause serious injury or death.

4. Pull only from the drawbar or pull implements designed, engineered and manufactured to attach and pull from the three-point hitch. Never hitch anything to the axle housing or any other point on the tractor aside from those mentioned above. Pulling from any other location only increase the risk of serious personal injury or death.

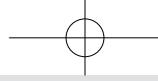


6. Improper use of the draw-bar, even if correctly positioned, can cause a rear overturn.
7. Do not overload an attachment or towed equipment. Use proper counterweights to maintain tractor stability. Hitch heavy loads to the draw-bar only.



8. Check for the correct coupling between the implement and the tractor drawbar. See the Towing Attachments chapter.
9. Adding front end or rear wheel ballast is always recommended for a tractor utilized for towing or pulling heavy loads. Forms of ballast include weights added to the front frame or rear wheels or liquid ballast in the rear tires. Always follow the manufacturer's recommended guidelines when adding ballast.

10. A safety chain will help control drawn equipment should it be accidentally separated from the draw-bar while transporting. Using the proper adaptor parts, attach the chain to the tractor draw-bar support or other specified anchor location. Provide only enough slack in the chain to permit turning. Towed implements should be supplied with a safety chain provided by the manufacturer. In the event your towed implement does not have a safety chain, consult with the equipment manufacturer or see your Authorized **KIOTI** Dealer for a chain with a strength rating equivalent to or greater than the gross weight of the towed implement.



11. If the front of the tractor tends to rise up when heavy implements are attached to the three point hitch, weights should be installed on the tractor. Do not operate the tractor with a light front end.



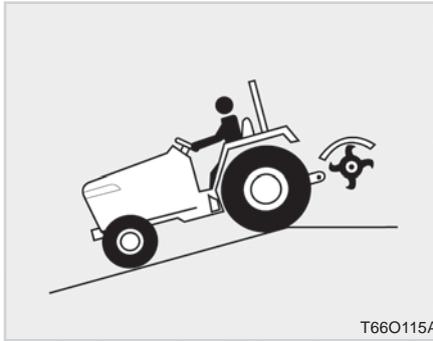
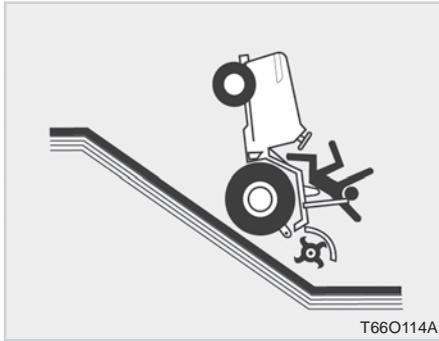
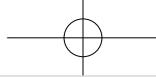
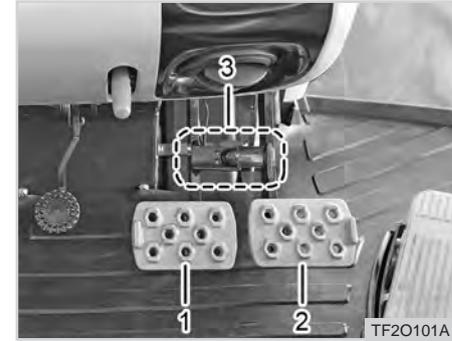
12. Always use the proper ballast weight on your tractor when using rear implements.

13. Watch front and rear to avoid obstacles at row ends, near trees and around other obstructions.

⚠ WARNING

- *Drive carefully to avoid injury from penetration of objects from sides, because this machine does not comply to OPS.*

14. Do not leave equipment in the raised position when the tractor is stopped or unattended.
15. When using implements or attachments with your tractor you should first read their respective owner's manual. You should always keep their safe operation procedures in mind.
16. You should be familiar with your equipment and its limitations.
17. If abused or used incorrectly your tractor can become dangerous to you and bystanders. Overloading your tractor or using unsafe equipment can also be dangerous and should be avoided. Refer to the "Specifications of Implement Limitation", which outlines the maximum load for safe tractor operation.

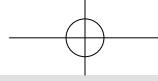
**WHEN DRIVING THE TRACTOR**

(1) Brake Pedal (L) (2) Brake Pedal (R)
(3) Brake Pedal Lock

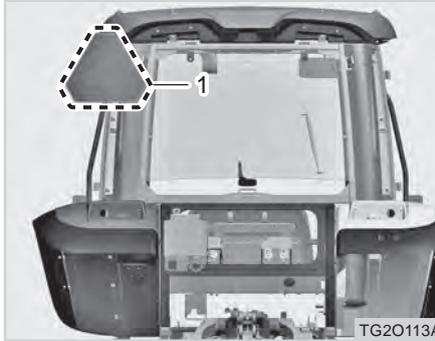
18. Driving forward out of a ditch or steep inclines can cause the tractor to tip over backwards. To avoid this you should back out of these positions. Four wheel drive tractors can give you a false sense of security in the tractor's ability to maneuver out of these positions, so extra caution should be taken.
19. Never try to get on or off a moving tractor.

20. When working in groups, always let the others know what you are going to do before you do it.
21. Never "freewheel". Disengaging the clutch or shifting into neutral while descending a slope could lead to a loss of control.
22. Do not operate near ditches, holes, embankments, or other terrain features which may collapse under the tractor's weight. The risk of tractor upset is even higher when the ground is loose or wet.

1. Lock the brake pedals together when traveling at road speeds. Brake both wheels simultaneously when making an emergency stop. Uneven braking at road speeds could cause the tractor to turn suddenly causing a loss of control or a roll-over.



2. Always slow the tractor before turning. Turning at high speed may cause a loss of control or tractor roll-over.



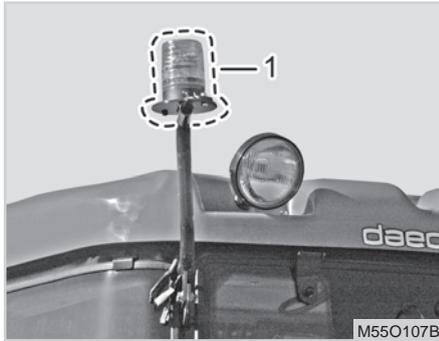
(1) SMV Emblem

3. Make sure that the Slow Moving Vehicle (SMV) sign is clean and visible. Use hazard lights as required.
4. Observe all local traffic and safety regulations.
5. Turn the headlights on. Dim them when meeting another vehicle.
6. Drive at speeds that allow you to maintain control at all times.
7. Do not apply the differential lock while traveling at road speeds.

8. Avoid sudden movements of the steering wheel as this can cause a loss of control of the tractor. This risk is especially great when traveling at road speeds.
9. Do not operate and towing an implement while the tractor is on the road. Always lock the three-point hitch in the raised position before traveling on the road with a three-point hitch implement.
10. When towing other equipment, use a safety chain and place an SMV emblem on it as well.

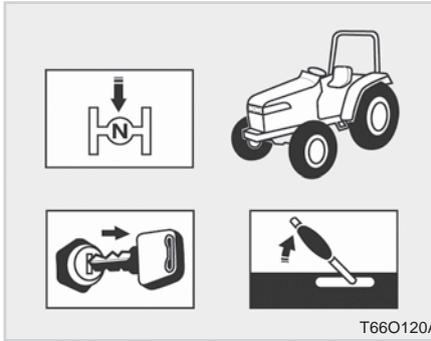


PARKING THE TRACTOR



(1) Warning beacon light

11. When driving the tractor after sunset, be sure to turn on the headlight and warning beacon light (if equipped) to improve visibility of the tractor to on-coming traffic.



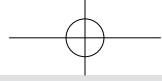
1. Disengage the P.T.O, lower all implements, place all control levers in the neutral position, set the parking brake, stop the engine and remove the key before dismounting the tractor.

OPERATING THE PTO



(1) P.T.O Shaft Cover
(2) P.T.O Shaft Cap

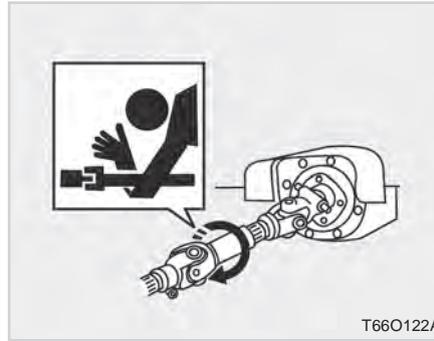
1. Make sure the tractor is in neutral, the parking brake is set, all implements and attachments have been lowered to the ground, the engine is off, the key has been removed and all components have come to a complete stop before connecting, disconnecting, adjusting cleaning or servicing any PTO driven equipment.
2. Keep the P.T.O shaft cover in place at all times. Re-install the P.T.O shaft cap when the shaft is not in use.



3. Before installing or using P.T.O driven equipment, read the manufacturer's manual and review the safety labels attached to the equipment.

⚠ WARNING

- *Before operating any implement, especially PTO powered implements, always make sure that all bystanders are well away from the tractor.*
- *When using the PTO drive with a stationary tractor, always make sure that the transmission is in neutral and that the parking brake is applied.*
- *Before starting up any PTO-driven implement hitched to the three-point linkage, lift the implement to its full height and check that at least 1/4 of the total length of the telescopic section of the drive shaft is engaged at all times.*
- *Ensure that implements and attachments are properly installed and that the tractor and implement PTO shaft splines and dimensions and power specifications match.*



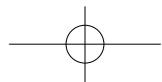
PRECAUTIONS DURING SERVICING



4. When operating stationary P.T.O driven equipment, always place the transmission in neutral and apply the tractor parking brake and place chocks behind and in front of the rear wheels. Stay clear of all rotating parts.
5. Do not attach a PTO driven implement if the implements safety shields are damaged or not in place. Rotating shafts are an entanglement hazard.

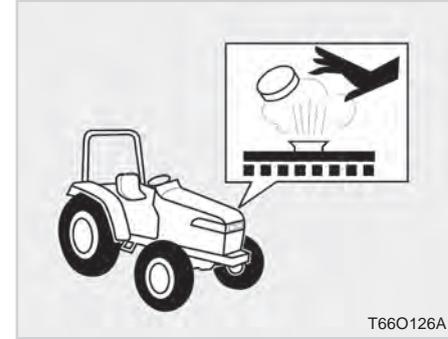
In order to service your tractor you must park it on a flat level surface, set the parking brake, place the gear shift lever in neutral stop the engine and remove the key.

1. Do not smoke while working around the battery or when refueling your tractor. Keep all sparks and flames away from the battery and fuel tank. The battery presents an explosive hazard because it gives off hydrogen and oxygen etc. especially when recharging.



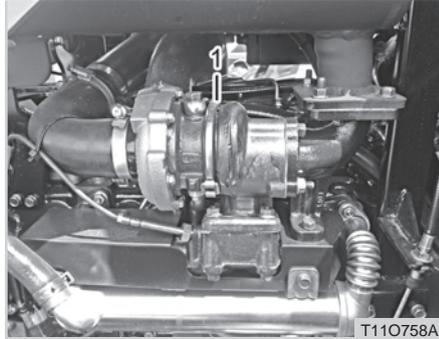
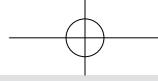


4. Before jump starting a dead battery, read and follow all of the instructions. (Refer to the page 5-11)
5. It is recommended to keep a fire extinguisher close to your fueling station in case of fire.



2. Allow the tractor time to cool off before servicing any part that may have become hot while the tractor was running.
3. Always set the parking brake, place the transmission in neutral, lower all implements or attachments to the ground, shut the engine off and remove the key before refueling or performing any work on the tractor. Avoid overfilling or spilling fuel. Wipe up or rinse off any spilled fuel before operating the tractor.

6. Do not remove the radiator cap while the coolant is hot. When cool, slowly rotate the cap to the first stop and allow sufficient time for excess pressure to escape. After all the pressure is released remove the cap completely. If your tractor is equipped with a coolant recovery tank, add coolant there rather than to the radiator.

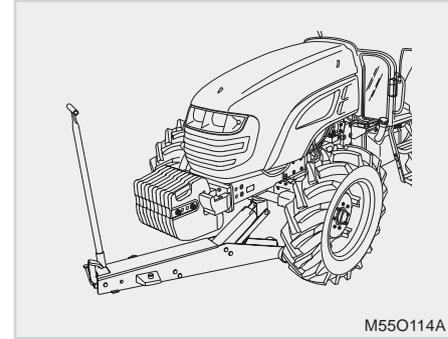


(1) Turbocharger

Never touch the turbocharger while the engine is running. Touching the turbocharger can cause serious injury.

NOTE

- This engine is coated with anti-corrosive to prevent premature corrosion. This coating on hot components, including the exhaust manifold and turbocharger, may be deteriorated by high heat during use, resulting in loss of its effect. Therefore, such areas may be corroded in course of time.

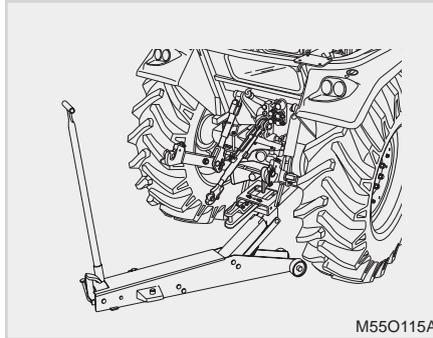


7. If the tractor must be lifted for servicing, Use a jack or other lifting device sufficiently rated to lift the tractor. Always support a lifted tractor with jack stands or other approved support devices, never rely on a jack or other lifting device to support the tractor in a suspended application alone..
8. Before lifting any tractor, be sure to engage the parking brake, place the transmission in neutral, lower



any implements or attachments to the ground, turn the engine off and remove the key. It is also recommended to add chocks in front and behind one wheel that will remain on the ground.

9. When lifting the tractor, especially at the rear, the tractor can pivot on the front axle causing the tractor to lean to one side. Before lifting the tractor, it is recommended to insert wooden wedges between the front axle and the tractor frame to prevent the tractor from suddenly leaning to one side.



10. Only use jacks or other approved lifting devices sufficiently rated to lift the tractor.

When lifting the entire tractor, always apply the jack or other lifting device to the center of the front axle and underneath the center of the drawbar frame (rear).

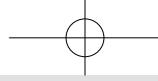
It is also recommended to install wooden wedges between the front axle and tractor frame before lift-

ing the unit to prevent the tractor from pivoting on the front axle and leaning to one side.

If only lifting one tire to repair a flat or for another purpose, place the jack or other lifting device underneath the front axle or the drawbar frame closest to the tire you are trying to lift so as not to lift the entire front or rear axle at one time.

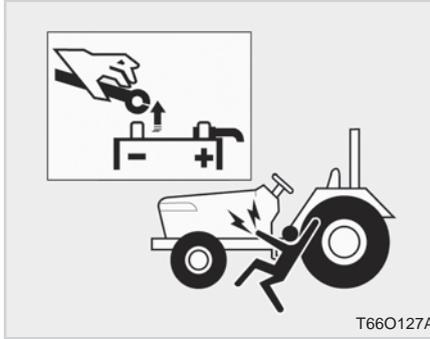
Always install wheel chocks in front and rear of a tire that will maintain contact with the ground when only lifting one tire or side of the tractor at a time.

11. No decals for the lifting points are applied on the tractor, as they would be, too difficult to apply in the available spaces and would be all too easily removed or defaced during normal operation of the tractor.



 **NOTE**

- Apply the jack lift to the lifting points according to the information provided and follow the recommended guidelines and safety procedures.

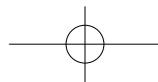


12. When working on the tractor's electrical system, disconnect the battery cables to prevent accidental shock or system overload.

13. Tire mounting should be done by qualified professionals, with the proper equipment.

14. Maintaining correct tire pressure is important for the life of your tires. Do not inflate the tires above the recommended pressure. (Provided on the tire sidewall by the manufacturer.)

15. Securely support the tractor with the aid of approved lifting equip-

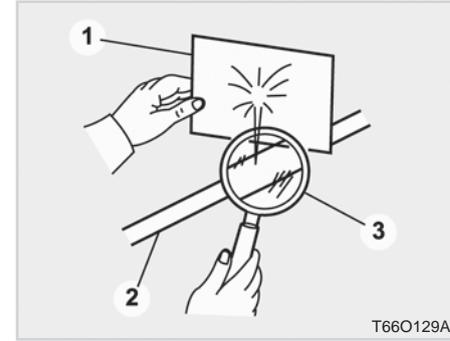




ment like a jack and support devices like a jack stand when changing the wheels or wheel tread settings.



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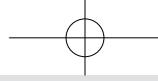


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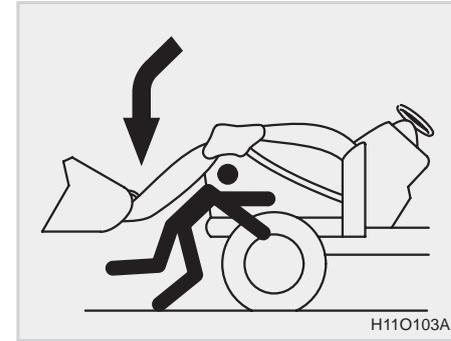
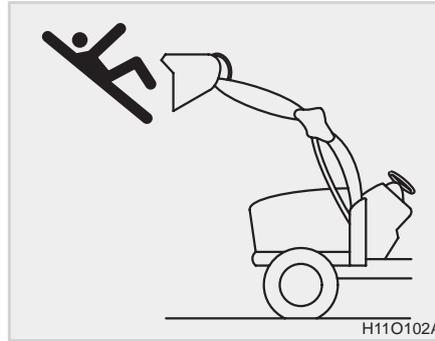
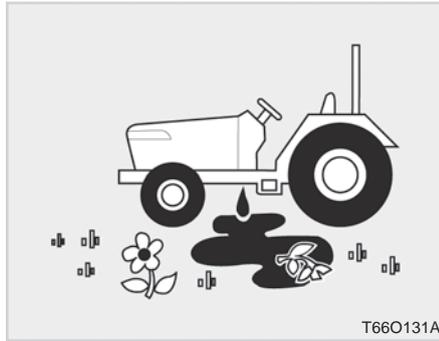
- (1) Cardboard (3) Magnifying Glass
(2) Hydraulic Line

16. Make sure that the wheel bolts have been tightened to the specified torque.
17. Escaping hydraulic fluid under pressure has sufficient force to penetrate skin, causing serious personal injury. Be sure to release all residual pressure before disconnecting hydraulic lines.
Before adding pressure to the hydraulic system, make sure that all connections are tight and that all lines, pipes and hoses are free of damage.

18. Fluid escaping from pinholes may be invisible. Do not use hands to search for suspected leaks;
Use a piece of cardboard or wood, instead. Use of safety goggles or other eye protection is also highly recommended. If injured by escaping fluid, see a medical doctor at once. This fluid can produce gangrene and/or severe allergic reactions.



PRECAUTIONS WHEN USING THE LOADER

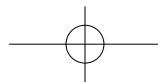


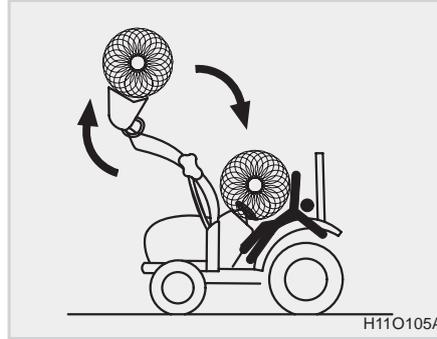
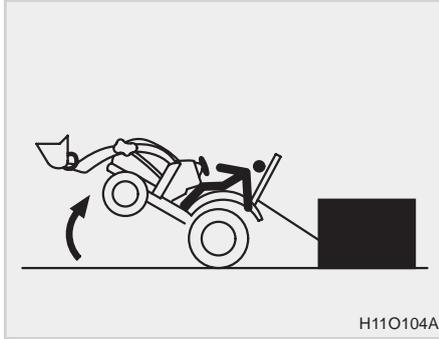
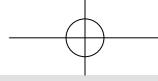
19. Keep environmental pollution in mind. When replacing coolant or oil, capture used fluids in approved containers and dispose of fluids through local recycling centers or other approved fluid disposal services.

Be sure to observe all relevant regulations when you dispose of the engine oil, transmission oil, fuel, coolant, filters and battery.

1. Never let anyone get in the loader or use the loader as a workbench. Otherwise, it may lead to a fatal injury or even death.

2. Do not stand or work under a raised loader or get close to it. Also, lower the loader arm onto the ground before leaving the tractor. Otherwise, it may lead to a fatal injury or even death.





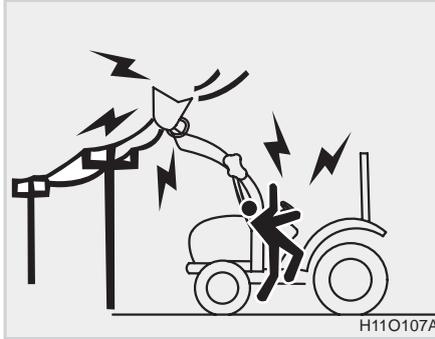
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3. Pull only from the drawbar or pull implements designed, engineered and manufactured to attach and pull from the three-point hitch. Never hitch anything to the axle housing or any other point on the tractor aside from those mentioned above. Pulling from any other location only increases the risk of serious personal injury or death.

4. Never attempt to pick up or handle objects not designed for the loader or attachment on the loader. Large objects like round bales that are moved without the proper attachment like a bale spear can easily fall off and damage the tractor, bystander or hit the operator resulting in injury or death.

Always carry any load as close to the ground as possible while driving

5. Before disconnecting the loader or attaching a loader to the tractor, visually inspect the unit and confirm there are no loose or missing hardware, leaks or other items that may require repair. Also carefully inspect the loader to make sure the locking handles and mechanism are in the "locked" position and the attachment (bucket, forks, etc.) is securely and properly connected to the loader.



⊕ IMPORTANT

- **A ROPS with sunshade or cab are Roll Over Protective Structures designed to minimize risk of operator injury when paired with a properly fastened seat belt in the event of a tractor roll-over. These are not substitutes for a FOPS, Falling Objects Protective Structure and will not protect the operator from falling objects.**
- **Avoid driving the vehicle into a dangerous area such as falling rocks zone.**

6. Do not allow loader arms or attachment to contact electrical power lines. Electrocutation may cause serious injury or death.

7. Never allow passengers on the tractor or loader under any circumstances.

Always keep bystanders out of the working area of any equipment.



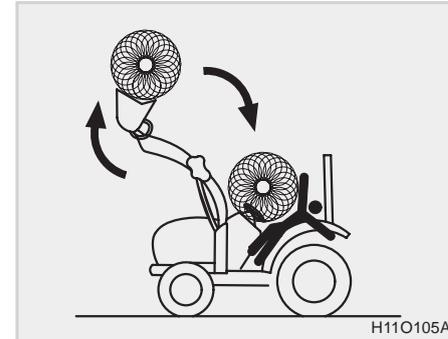
PRECAUTIONS WHEN USING

WARNING

- *Only use the KIOTI loader designed, engineered and manufactured to fit this HX tractor. Utilizing non-OEM loaders could cause tractor damage or operator injury if not designed, engineered and manufactured to properly fit this tractor.*
- *Never modify this equipment under any circumstances.*
- *Always consult with your Authorized KIOTI Dealer for service, maintenance or repairs.*
- *Always use the tractor and front end loader as prescribed by the owner's manual.*

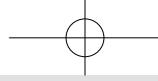
IMPORTANT

- It is recommended to keep the tractor and loader owner's manuals together in the storage compartment of the tractor for reference as needed to ensure the correct and safe operation of the equipment at all times.
- It is recommended that you read and understand this entire manual and the loader owner's manual before operation of your new tractor and loader. Failure to do so could result in accidents or injury.



WARNING

- *Follow all recommended safety guidelines when operating this tractor! When operating the tractor in conjunction with a loader, the tractor balance can be upset easily when handling loads improperly, working on slopes or uneven terrain and when traveling too fast for the working conditions.*



⚠ WARNING

- ***Always inspect loader attachments to confirm they are properly installed on the loader (see loader owner's manual) and utilize the correct attachment for the work being performed to minimize the risk for objects falling off or down the loader arms which could damage the tractor or cause injury or death to the operator or bystanders.***

- Side mounted, three-point hitch implements make a wider arc when turning than towed equipment. Make certain to maintain enough clearance for safe turning.
- When using implements towed or mounted to the three-point hitch, it is important to read and follow the implement manufacturer's guidelines for the proper attachment and safe operating conditions to ensure compatibility with this tractor and

minimize opportunity to damage the tractor, implement or pose risk of injury to the operator or bystanders.

- This tractor is outfitted with a category II, three-point hitch. All three-point mounted implements used with this tractor should be outfitted with category II mounting dimensions or with category I mounting dimensions in conjunction with bushings or adapters to meet category II mounting pin dimensions.

Never attempt to use a three-point implement when not properly connected to the tractor at all three points. Operating three-point implements improperly attached or outside the manufacturer's recommended guidelines could cause damage to the tractor, implement or risk of injury to the operator or bystanders.

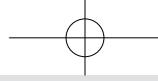
PTO shafts can be a rotating hazard! Always inspect driveline shields for damage or missing components. The PTO shaft shield should rotate

independently of the shaft itself and should be secured by chain or other device to prevent shield rotation during operation.

Never operate a PTO powered implement with missing or damaged guards or shields! Failure to comply could lead to serious injury or death for the operator or bystanders who may be near a rotating shaft.

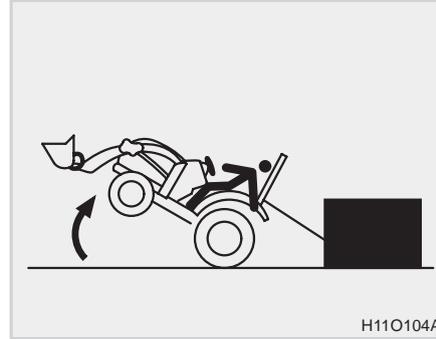
⚠ WARNING

- ***A cab or ROPS will not protect the operator from falling objects! Always follow the manufacturer's guidelines for the safe operation of this tractor when outfitted with a loader or when operating in conditions where falling objects may be a potential hazard.***



To reduce risks, the following precautions should be used.

- Only use loader designed, engineered and manufactured by **KIOTI** to fit this tractor.
- Only use specific loader implements and attachments designed, engineered and manufactured in accordance with SAE J2513/ISO24410 for the operation to be performed. Strictly follow the directions and warnings in the loader's operator's manual.
- Use the tractor and loader or implements with caution and drive on firm, level or gently sloping ground and avoid slopes, pits, excavations and ditches whenever possible.
- If a front end loader is installed, always keep the ROPS in the locked, upright position and wear your seat belt (always wear your seatbelt on cab models) to minimize risk of injury in the event of a roll-over. Follow all recommended guidelines and safety procedure outlined in the tractor and loader owner's manuals.

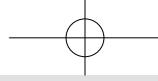


- Pull only from the drawbar or pull implements designed, engineered and manufactured to attach and pull from the three-point hitch. Never hitch anything to the axle housing or any other point on the tractor aside from those mentioned above. Pulling from any other location only increases the risk of serious personal injury or death.
- Improper use of the drawbar, even if correctly positioned, can cause a

rear overturn.

- Adding front end or rear wheel ballast is always recommended for a tractor utilized for towing or pulling heavy loads. Forms of ballast include weights added to the front frame or rear wheels or liquid ballast in the rear tires. Always follow the manufacturer's recommended guidelines when adding ballast
- **DO NOT** overload an attachment or towed equipment. Use proper counterweights to maintain tractor stability. Hitch heavy loads to the drawbar only.
- Check for the correct coupling between the implement and the tractor drawbar. See the Towing Attachments section.
- Never try to add more ballast to the tractor to compensate for lifting, pulling or towing more than the maximum recommend load as outlined by the tractor manufacturer.

1



PRECAUTIONS WHEN CLEANING THE TRACTOR

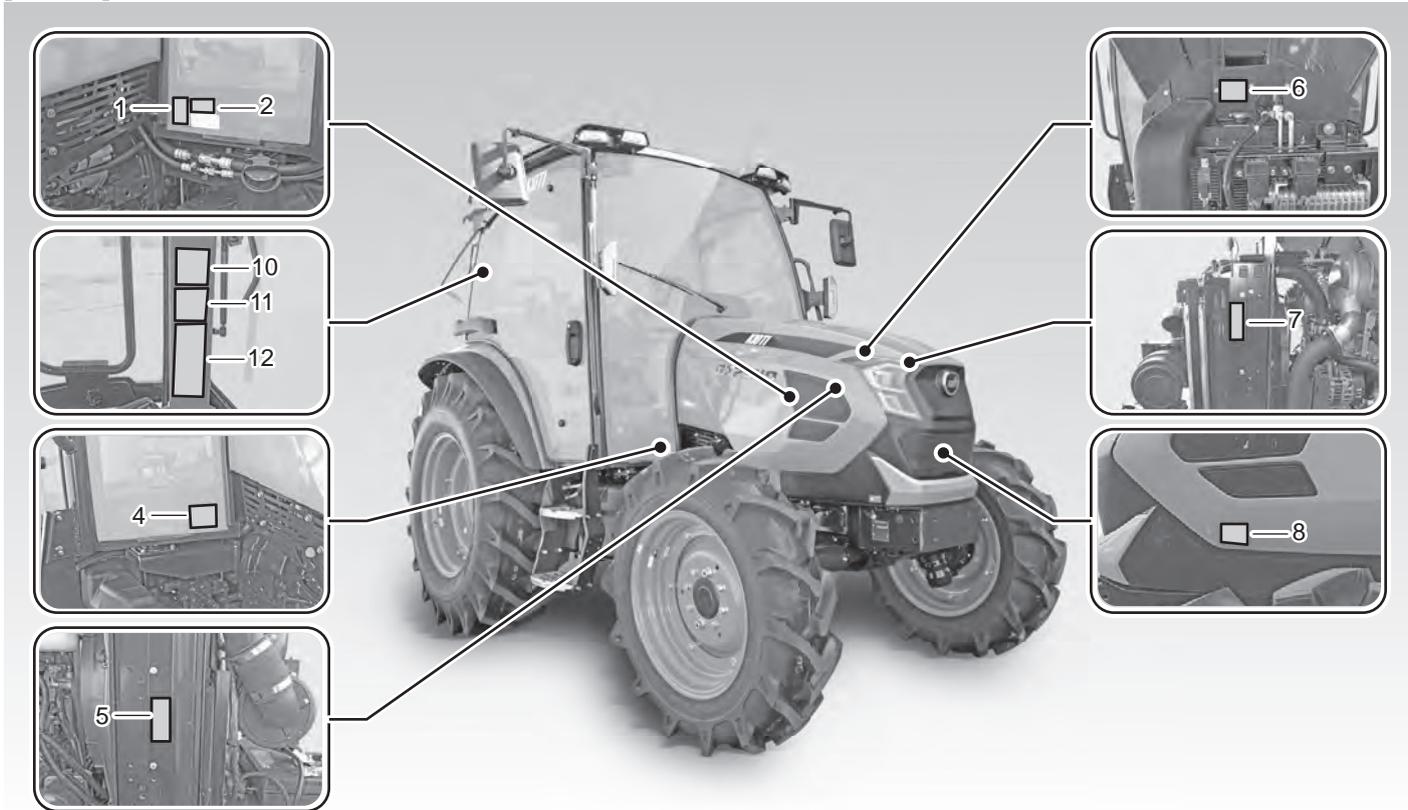
- Keep work surfaces and engine compartments clean.
- Before cleaning the machine, always lower attachments and implements to the ground, place the transmission in neutral, engage the parking brake, turn the engine off and remove the key.
- Always follow the manufacturer's recommended guidelines when using cleaning agents, aerosols, etc. Use personal protective equipment (PPE) including gloves, safety glasses, etc as recommended by the cleaning supply manufacturer.
- Clean steps, pedals and floor. Remove grease or oil. Brush away dust or mud. In winter, scrape away snow and ice. Remember - slippery surfaces are dangerous.
- Avoid using harsh or abrasive cleaning agents like paint thinner or acids on plastic parts to prevent marring, staining or cracking. Only use a damp, soft cloth with a water and mild soap solution to clean the instrument cluster, smart arm rest, etc.
- Remove and put away any tools, buckets, chains and hooks that may clutter the operator station and become a trip hazard or could interfere with access to controls.



SAFETY DECAL MAINTENANCE

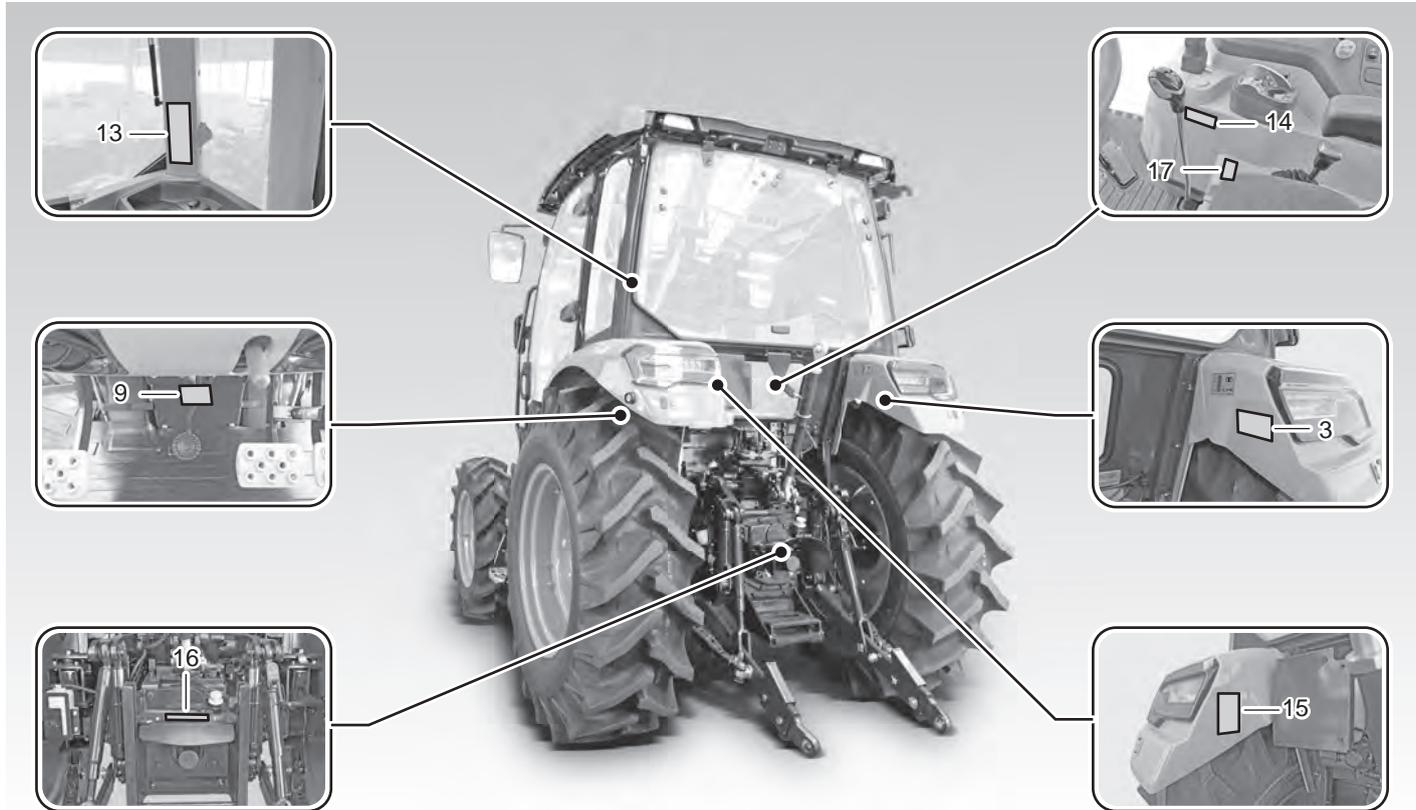
DECAL MOUNTING LOCATION

[CABIN]



1

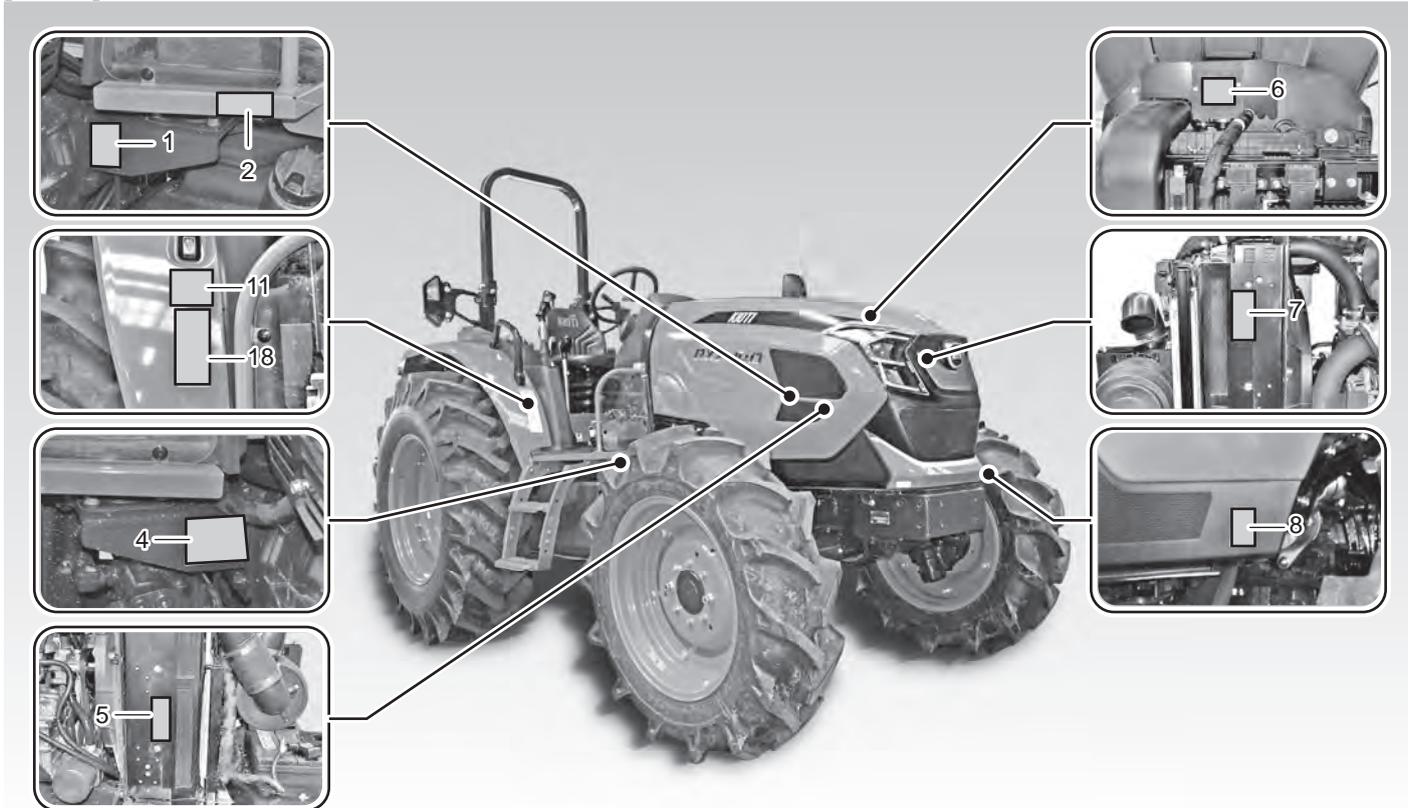
TF20106B



TF20107B

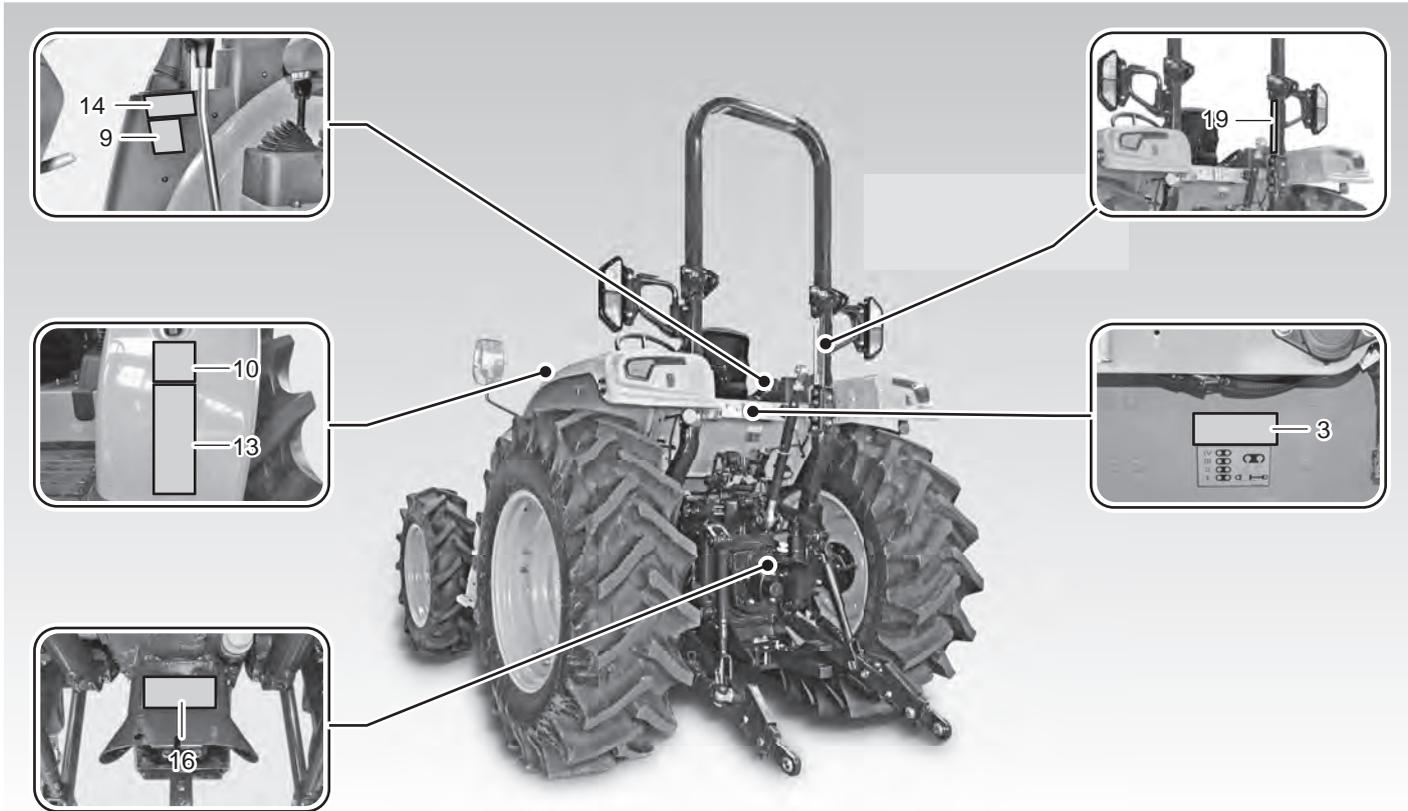
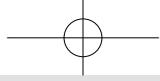


[ROPS]

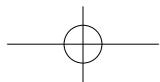


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TF20111A



TF20112A





DECALS

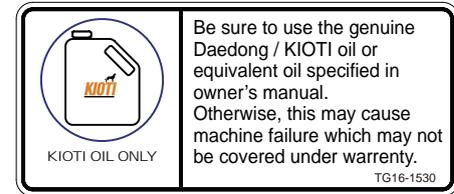
(1) Part No. : T4938-53551



(2) Part No. : TC26-0388A

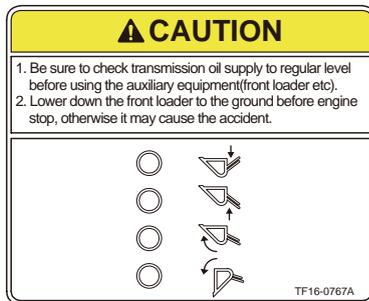


(3) Part No. : TG16-1530B



1

(4) Part No. : TF16-0767A

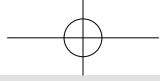


(5) Part No. : TG16-1530B



(6) Part No. : T2555-52282





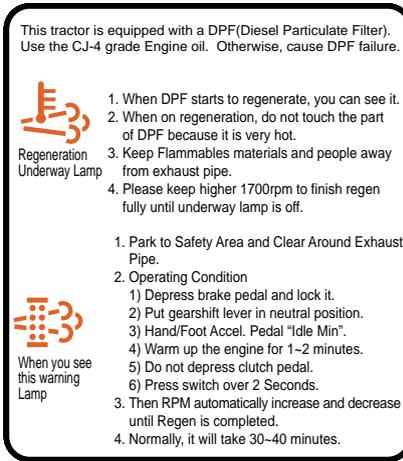
(7) Part No. : T4625-52351



(8) Part No. : T2615-55112



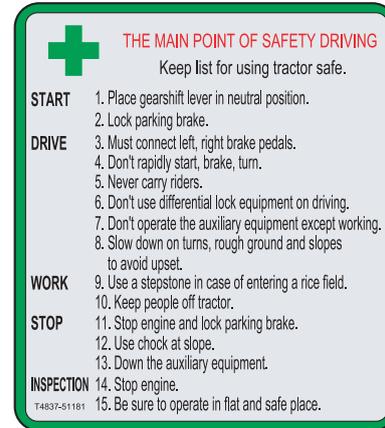
(10) Part No. : F6800-29112

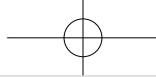


(9) Part No. : T4938-52351



(11) Part No. : T4837-51181





(12) Part No. : T5245-52311

 WARNING	
<ol style="list-style-type: none"> Before leaving the tractor, park the tractor on level ground, apply the parking brake, disengage the P.T.O and stop the engine. Avoid accidental contact with the gear shift levers while the engine is running as unexpected tractor movement can result. 	
TO AVOID POSSIBLE INJURY OR DEATH	
<ol style="list-style-type: none"> Do not start engine by shorting across starter terminals, machine may start in gear and move if normal starting circuitry is bypassed. Start engine only from operator's seat with transmission and PTO in neutral. Never start engine while standing on ground. 	
<ol style="list-style-type: none"> To reduce the risk of carbon monoxide poisoning, open window to allow fresh air to enter cabin. Never sleep in cabin, Sleeping in cabin may cause death. 	
	TO AVOID PERSONAL INJURY: <ol style="list-style-type: none"> Roll-Over Protective Structure (ROPS) with a seat belt is recommended in most applications. Check the OWNER 's manual Always use the seat belt when the tractor is equipped with ROPS. Never use the seat belt when the tractor is not equipped with ROPS.
	
T5245-52311	

(13) Part No. : TD26-1009B

 WARNING
<p>Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.</p> <ul style="list-style-type: none"> Always start and operate the engine in a well-ventilated area. If in an enclosed area, vent the exhaust to the outside. Do not modify or tamper with the exhaust system. Do not idle the engine except as necessary. <p>For more information go to www.P65warnings.ca.gov/diesel</p>
TD26-1009

(14) Part No. : T4182-53191

 WARNING
<p>TO AVOID POSSIBLE INJURY, DEATH OR LOSS OF PROPERTY FROM A MACHINE RUNAWAY</p>
<ul style="list-style-type: none"> With the engine off, unexpected machine movement could result regardless of the gearshift position. Before dismounting the machine, apply the parking brake to prevent machine runaway.
T4182-53191

1



(15) Part No. : T4817-52201

⚠ WARNING



Position lever

Up

↓

Down

Precaution for position lever

- Don't operate except attaching and detaching of implement.
- Place gearshift lever in neutral position and must lock parking brake before operating at a flat.
- PTO switch must be located on the neutral position.
- When operate engine at the high speed, implement quickly move up and down, therefore operate to ensure sufficient safety distance at the low speed.

T4817-52201

(16) Part No. : T2555-52262

⚠ DANGER




<p>Pull only from approved drawbar or lower links of 3-point linkage at horizontal position or below.</p>	<p>Rotating driveline contact may cause serious injury or death.</p> <p>Keep all driveline, tractor and equipment shield in place during operation.</p> <p style="text-align: right; font-size: 6px;">T2555-52262</p>
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(17) Part No. : TF26-1950A

Can not use range shift H
when shifting creep.

TF26-1950A

(18) Part No. : T2555-52141

⚠ WARNING

- Before starting and operating
 - Know the operating and safety instructions in the operators manual and on the tractor.
 - Clear the area of bystanders.
 - Locate and know operation of controls.
 - Fasten your seat belt.
- Start engine only from operators seat with transmission in neutral, PTO disengaged and hydraulic controls in lowered position.
- Slow down on turns, rough ground and slopes to avoid upset.
- Do not permit anyone but the operator to ride on the tractor, There is no safe place for riders.
- Lock brakes together, use warning lights and SMV emblem while driving on roads.
- Lower equipment, place gear shift levers in neutral, stop engine and apply parking brake before leaving tractor seat.
- Avoid accidental contact with rear shift lever while engine is running. Unexpected tractor movement can result.

FAILURE TO FOLLOW ANY OF THE INSTRUCTIONS ABOVE CAN CAUSE SERIOUS INJURY TO THE OPERATOR OR OTHER PERSONS.

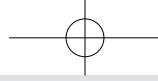
(Replacement manuals are available from your local dealer)
T2555-52141



(19) Part No. : T2555-52353

	<p style="text-align: center;">! D A N G E R</p> <ul style="list-style-type: none"> ● Improper operating of tractor can rollover or upset ● DO NOT operate vehicle without raised ROPS and locking pins in position. ● DO NOT attach ropes or chains to ROPS for pulling. ● Lower the ROPS for low clearance <u>ONLY</u>. <ul style="list-style-type: none"> - DO NOT fold ROPS with a canopy attached. - Seat belt is not recommended with ROPS lowered - NO protection is provided in lowered position. ● <u>RAISE</u> ROPS and insert locking pin immediately after low clearance use, or for transport ● <u>ALWAYS</u> wear seat belt with ROPS in raised position. Failure to comply will result death or serious injury 	<p style="text-align: right; font-size: small;">T2555-52353</p>
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1



DECAL MAINTENANCE

Safety decals are attached to the tractor as quick visual reminders of the safe operating guidelines as outlined in this owner's manual. Always follow the instructions provided on the decals and this owner's manual.

CAUTION

- **Keep the decals clean and intact. If any decal is dirty, wash it with soap and dry with a soft cloth.**
- **Never clean a decal with chemicals or abrasive cleaners as they could damage the decal.**
- **Do not spray high-pressure water directly onto the decal. The decal could be forcibly removed from the tractor by a spray from pressurized water.**

IMPORTANT

- **If a decal is damaged or lost, contact your local KIOTI dealer to acquire and install a replacement decal.**
- **When replacing a decal, wash the surface with soap and water and dry thoroughly. Install the new decal in the original position, while pressing gently as the decal is laid in place to remove air bubbles from underneath the surface.**
- **If a decal is attached to a component requiring replacement, install a new decal when the component is replaced.**



IDENTIFICATION WARRANTY

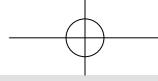
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2

2



VEHICLE IDENTIFICATION NUMBERS

TRACTOR SERIAL NUMBER ENGINE SERIAL NUMBER



(1) Tractor Serial Number Plate

This number is to identify the tractor and the plate is attached to the left side of the front axle frame.



(1) Engine Serial Number

The engine number is stamped on the cylinder block surface which is rear side of the alternator on the left side of the engine.

Your Authorized **KIOTI** Dealer can help you keep your tractor in top shape for the duration of your ownership. After reading this manual thoroughly, you will find that you can do some of the regular maintenance yourself.

When in need of parts, warranty or major service, be sure to contact your Authorized **KIOTI** Dealer for assistance.

Keeping your tractor and engine serial numbers in this manual and providing them when ordering parts helps your dealer provide the correct parts for your tractor everytime.



• **Tractor Model Name :**

• **Tractor Serial No :**

• **Engine Serial No :**

• **Date of Purchase :**

To be filled in by purchaser.

ESSENTIAL REPLACEMENT PARTS OILS AND FLUIDS



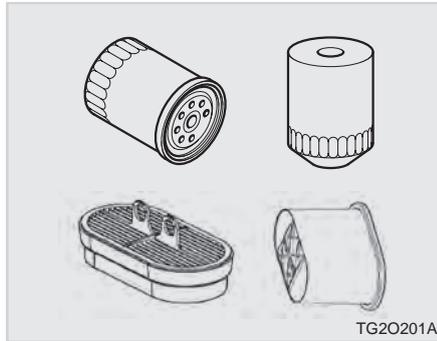
Your **KIOTI** Tractor uses multiple oils and fluids during operation. Replacing those fluids with the same or equivalent products for lubrication, corrosion and cooling is important to maintain the performance and life expectancy of your tractor for years to come.

When the oils or fluids are low, contaminated or have degraded due to usage, the performance and protection of your tractor are at risk. Following the recommended maintenance schedule provided in the manual or establishing your own maintenance schedule based on the recommendations set forth in the manual will keep your tractor performing at it's optimum level.

No.	ITEM	SPECIFICATION	CAPA [U.S.gal.(L)]
1	Engine oil	Tier2 or 3 (without DPF) API CH grade above Tier4 (with DPF) - API CJ grade above SAE10W30 / SAE10W40 / SAE15W40	2.83 (10.7)
2	Transmission oil	Daedong : S-UTF 38 Shell : Donax-TD Low Vis , Spirax S3 TLV BP : AUTRAN SYN 295 Petro-Canada : Duratran XL Synthetic Blend Phillips 66 : PowerTran™ Fluid Low Vis Valvoline : Unitrac Low Viscosity	11.75 (44.5)
3	Front axle case	SAE90 oil and the same level or above, or TM	2.6 (10)
4	Grease	SAE multi purpose type grease	SAE 90 level more than or TM oil and the same
5	Antifreeze	Fresh clean water with ethylene glycol (Pink) (50:50)	2.51 (9.5)



FILTERS



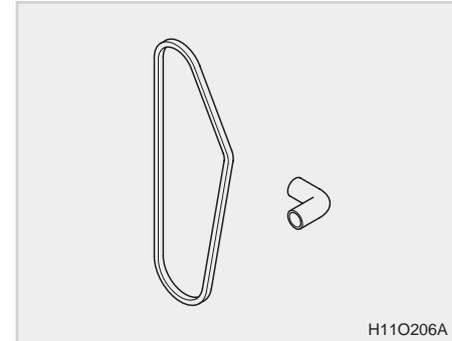
Filters for the engine, transmission, air cleaner, and cabin are consumables that purify oil and air. Make sure to replace these items when changing oil or as recommended in the maintenance schedule provided in this manual.

No.	PART NO	DESCRIPTION	QTY
1	E6201-32443	Engine Oil Filter	1
2	EH35-0011A	Fuel Filter	1
3	TF26-1704A	Air Cleaner Filter	1
4	TG14-0518A	Hydraulic Filter	1
5	TD24-0257A	Hydraulic Filter (for powershift models)	1

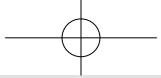
NOTE

- Part numbers may change without prior notice, so please contact nearest **KIOTI** dealer when purchasing parts.

BELTS AND RUBBER PARTS

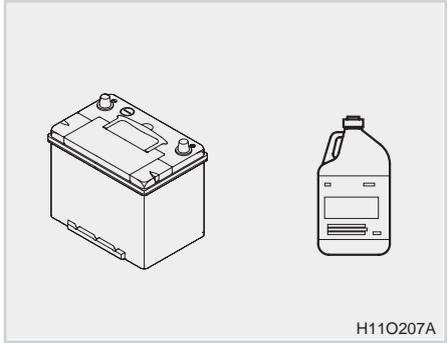


Belts, hoses and boots, which are made of rubber, weaken and begin to harden and crack as they age. It is recommended to perform regular inspections of the belts, hoses and boots and replace items when they begin to show the initial signs of aging rather than waiting till they fail which could lead to more complex and costlier repairs.



OTHER COMPONENTS

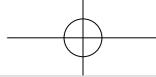
No.	PART NO	DESCRIPTION	QTY
1	EH16-0013A	Fan Belt (CABIN)	1
	EH16-0014A	Fan Belt (ROPS)	1
2	TF26-1780A	A/C Belt	1



The battery condition is very important for engine start performance especially in winter.

Therefore, make sure to check its condition daily.

No.	PART NO	DESCRIPTION	QTY
1	T4710-69045	Battery	1



WARRANTY

KIOTI will repair or replace, at **KIOTI**'s option, any part covered under the **KIOTI** written warranty statement applicable at the time of retail sale, that is determined by **KIOTI** to be defective in material or workmanship during the applicable warranty period. In order to obtain warranty repairs, the purchaser (or subsequent transferee, as applicable) must deliver the product, at the purchaser's expense, along with proof of purchase to any authorized **KIOTI** dealer. To be effective, this Limited Warranty must be activated by **KIOTI**'s receipt of the product registration, executed by the original purchaser of the relevant product and the selling dealer.

1. Owner Responsibilities

- (1) Follow the recommended guidelines for use and maintenance intervals as outlined in the Owner's Manual.
- (2) Failure to perform maintenance as recommended in the Owner's Manual or use genuine **KIOTI** parts could lead to diminished life expectancy of the product.

2. Warranty Repair Procedure

Consult your Authorized **KIOTI** Dealer for warranty questions or repairs.

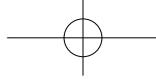
3. Warranty Transfer

The warranty for any **KIOTI** tractor may be transferred to any subsequent owner within the warranty period. Consult your Authorized **KIOTI** Dealer for assistance.

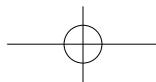
4. Warranty Termination

The warranty for any **KIOTI** product immediately terminates For any tractor or product sold at public auction, sold as salvage or scrap or is damaged beyond physical repair.





MEMO





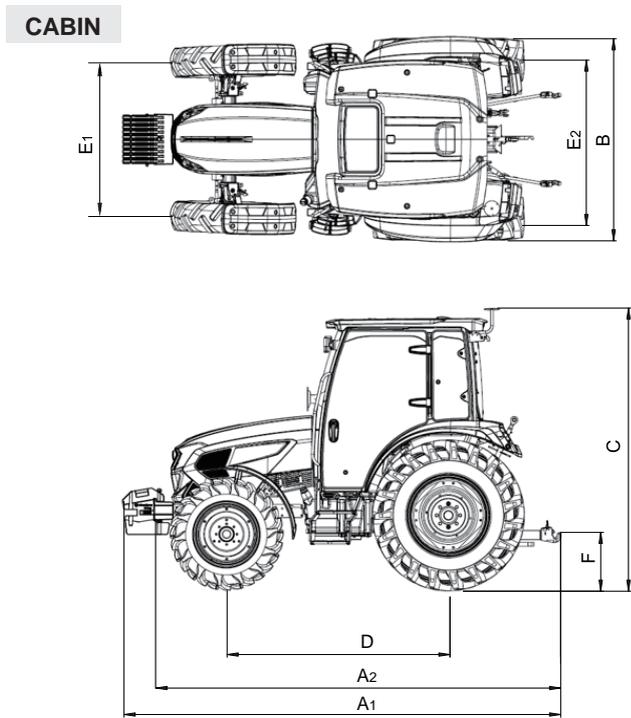
SPECIFICATIONS

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3

3

GENERAL SPECIFICATIONS EXTERNAL DIMENSIONS



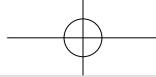
TF20301A

in. (mm)

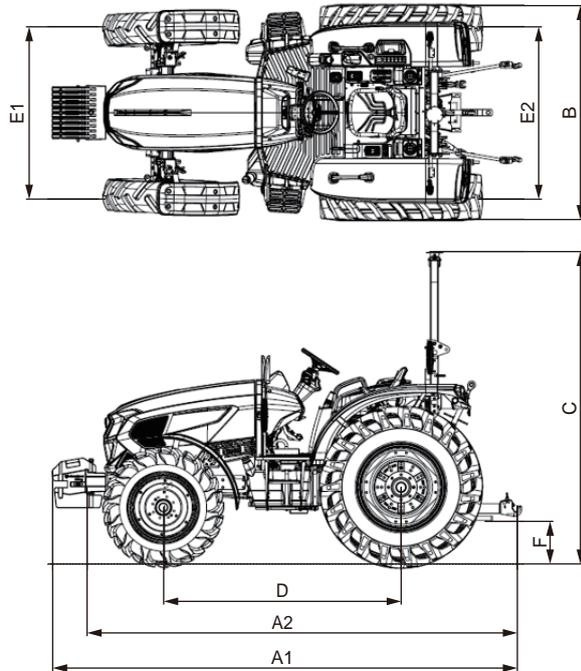
ITEM	RX6640PC-NA RX7340PC-NA RX7340PCR-NA	REMARK
1. Overall length (A1)	169.1 (4,295)	
2. Overall length (A2)	156.9 (3,986)	
3. Overall width (B)	82.1 (2,085)	
4. Overall height (C)	105.3 (2,675)	
5. Wheel base (D)	85.4 (2,170)	
6. Tread (E1)	62.9 (1,597)	
7. Tread (E2)	63.9 (1,623)	
8. Ground clearance (F)	15.7 (400)	

- ※ A1: Overall length including weights
 A2: Overall length excluding weights
 E1: Front wheel tread E2: Rear wheel tread

※ There may be differences in specifications depending on the tire size.



ROPS



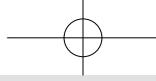
TF20302A

in. (mm)

ITEM	RX6640P-NA RX7340P-NA	REMARK
1. Overall length (A1)	169.1 (4,295)	
2. Overall length (A2)	156.9 (3,986)	
3. Overall width (B)	77.2 (1,960)	
4. Overall height (C)	114.3 (2,904)	
5. Wheel base (D)	85.4 (2,170)	
6. Tread (E1)	59.1 (1,500)	
7. Tread (E2)	59.6 (1,514)	
8. Ground clearance (F)	15.7 (400)	

- ※ A1: Overall length including weights
 A2: Overall length excluding weights
 E1: Front wheel tread E2: Rear wheel tread

※ There may be differences in specifications depending on the tire size.



GENERAL SPECIFICATIONS [CABIN]

ITEM		RX6640PC-NA	RX7340PC-NA	RX7340PCR-NA	
Engine	Model	4H243T-TP4A	4H243T-TP4A	4H243T-TP4A	
	No of cylinder	4	←	←	
	Total displacement	cu in. (cc)	148.6 (2,435)	←	←
	Bore and stroke	in. (mm)	3.4 x 4.0 (87 x 102.4)	←	←
	Engine gross power	HP (kw)	66.4 (49.5)	73.1 (54.5)	←
	Rated PTO Power	HP (kw)	54.9 (40.9)	60.9 (45.4)	←
	Rated revolution	rpm	2,600	←	←
Capacities	Fuel tank	U.S.gal (L)	26.4 (100)	←	←
	Transmission oil	U.S.gal (L)	11.75 (44.5)	←	←
	Front axle oil	U.S.gal (L)	2.6 (10)	←	←
	Engine Oil (filter include)	U.S.gal (L)	2.83 (10.7)	←	←
	Engine Coolant	U.S.gal (L)	2.51 (9.5)	←	←
Drive train	Main Clutch Type		Hydro Multi Wet Disc Clutch	←	←
	Transmission	Shuttle Type	Power Shuttle	←	←
		Main gear shift	4	←	4
		Range gear shift	3	←	5
		No. of speeds	12 x 12	←	20 x 20



ITEM		RX6640PC-NA	RX7340PC-NA	RX7340PCR-NA
Drive train	Traveling Speeds (AG) mph (km/h)	Forward	22.01 (35.43)	←
		Reverse	21.92 (35.28)	←
	Front wheel drive		Hydro Multi Wet Disc Clutch	←
	Quick Turn (QT)		NA	←
	Main Brake Type		Wet Multi Disc	←
	Differential lock		Rear Standard	←
	Steering		Hydrostatic Power Steering	←
Tires	Agricultural	Front	11.2 - 24	←
		Rear	16.9 - 30	←
	Industrial Tire	Front	12.5/80 - 18	←
		Rear	18.4 - 24/8	←
Hydraulic system	Pump cc/rev (lpm)	Total hydraulic flow	30 (78)	←
		Implement	18 (46.8)	←
		Power steering	12 (31.2)	←
	3 Point Lift Control Type		Electronic control	←



ITEM			RX6640PC-NA	RX7340PC-NA	RX7340PCR-NA
Hydraulic system	Standard remote valve quantity	Rear remote hydraulic valve	1 (port : 2) (Spring return type)	←	←
	3-point hitch type		Category II	←	←
	Lift Capacity lbs (kg.f)	@24 in. behind lift point	4,327.7 (1,963)	←	←
@lift point		5,584.3 (2,533)	←	←	
PTO	Rear	Type	Independent	←	←
		PTO shaft specifications	SAE 1-3/8, 6 Spline	←	←
		Speed(P-TO rpm)	540 / 540E	←	←
Min. turning radius (with brakes)	ft (mm)	Agricultural	0.14 (3.48)	0.13 (3.41)	←
Weight (Including cabin, excluding front weight)	lbs (kg.f)		6,814.5 (3,091)	9,015.1 (3,182)	←
Max. Drawbar vertical load	lbs (kg.f)		1,984 (900)	←	←

※ The specifications are subject to change without notice.

**[ROPS]**

ITEM		RX6640P-NA	RX7340P-NA	
Engine	Model	4H243T-TP4A	4H243T-TP4A	
	No of cylinder	4	←	
	Total displacement	cu in. (cc)	148.6 (2,435)	←
	Bore and stroke	in. (mm)	3.4 x 4.0 (87 x 102.4)	←
	Engine gross power	HP (kw)	66.4 (49.5)	73.1 (54.5)
	Rated PTO Power	HP (kw)	59.1 (44.07)	65.8 (49.0)
	Rated revolution	rpm	2,600	←
Capacities	Fuel tank	U.S.gal (L)	26.4 (100)	←
	Transmission oil	U.S.gal (L)	11.75 (44.5)	←
	Front axle oil	U.S.gal (L)	2.6 (10)	←
	Engine Oil (filter include)	U.S.gal (L)	2.83 (10.7)	←
	Engine Coolant	U.S.gal (L)	2.51 (9.5)	←
Drive train	Main Clutch Type		Hydro Multi Wet Disc Clutch	←
	Transmission	Shuttle Type	Power Shuttle	←
		Main gear shift	4	←
		Range gear shift	3	←
		No. of speeds	12 x 12	←



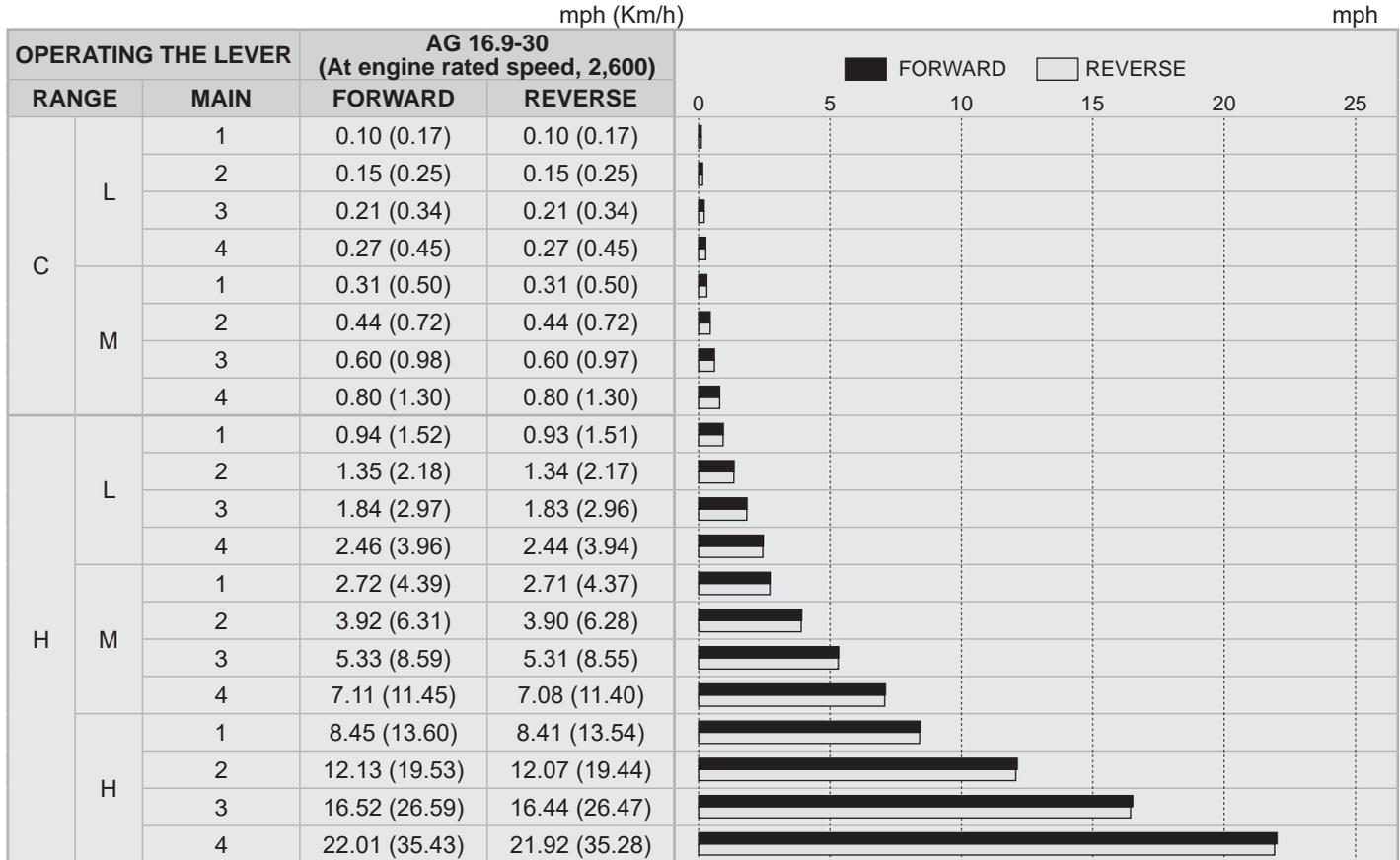
ITEM			RX6640P-NA	RX7340P-NA
	Traveling Speeds (AG) mph (km/h)	Forward	22.01 (35.43)	←
		Reverse	21.92 (35.28)	←
Drive train	Front wheel drive		Hydro Multi Wet Disc Clutch	←
	Quick Turn (QT)		NA	←
	Main Brake Type		Wet Multi Disc	←
	Differential lock		Rear Standard	←
	Steering		Hydrostatic Power Steering	←
	Tires	Agricultural	Front	11.2 - 24
Rear			16.9 - 30	←
Industrial Tire		Front	12.5/80 - 18	←
		Rear	18.4 - 24/8	←
Hydraulic system	Pump cc/rev (lpm)	Total hydraulic flow	30 (78)	←
		Implement	18 (46.8)	←
		Power steering	12 (31.2)	←
	3 Point Lift Control Type		Electronic control	←



ITEM			RX6640P-NA	RX7340P-NA
Hydraulic system	Standard remote valve quantity	Rear remote hydraulic valve	1 (port : 2) (Spring return type)	←
	3-point hitch type		Category II	←
	Lift Capacity lbs (kg.f)	@24 in. behind lift point	4,327.7 (1,963)	←
@lift point		5,584.3 (2,533)	←	
PTO	Rear	Type	Independent	←
		PTO shaft specifications	SAE 1-3/8, 6 Spline	←
		Speed(P-TO rpm)	540 / 540E	←
Min. turning radius (with brakes)	ft (mm)	Agricultural	-	-
Weight (Including cabin, excluding front weight)	lbs (kg.f)		-	-
Max. Drawbar vertical load	lbs (kg.f)		1,984 (900)	←

※ The specifications are subject to change without notice.

TRAVELING SPEEDS [RX7340PCR-NA]



※ Specifications are subject to change without notice.

**[RX6640PC-NA/RX7340PC-NA/RX6640P-NA/RX7340P-NA]**

mph (Km/h)

mph

OPERATING THE LEVER		AG 16.9-30 (At engine rated speed, 2,600)								
RANGE	MAIN	FORWARD	REVERSE	0	5	10	15	20	25	
H	L	1	0.94 (1.52)	0.93 (1.51)						
		2	1.35 (2.18)	1.34 (2.17)						
		3	1.84 (2.97)	1.83 (2.96)						
		4	2.46 (3.96)	2.44 (3.94)						
	M	1	2.72 (4.39)	2.71 (4.37)						
		2	3.92 (6.31)	3.90 (6.28)						
		3	5.33 (8.59)	5.31 (8.55)						
		4	7.11 (11.45)	7.08 (11.40)						
	H	1	8.45 (13.60)	8.41 (13.54)						
		2	12.13 (19.53)	12.07 (19.44)						
		3	16.52 (26.59)	16.44 (26.47)						
		4	22.01 (35.43)	21.92 (35.28)						

3

* Specifications are subject to change without notice.

IMPLEMENT LIMITATIONS STANDARD SIZE BY IMPLEMENT

This **KIOTI** tractor has been thoroughly tested for proper performance with implements sold or approved by **KIOTI**. Use with implements which are not sold or approved by **KIOTI** and which exceed the maximum specifications listed below, or which are otherwise unfit for use with this **KIOTI** tractor may result in malfunctions or failures to the tractor, damage to other property and injury to the operator or others. [Any malfunctions or failures to the tractor resulting from use with improper implements are not covered by the warranty.]

Model	Item	Tread (max. width)		Lifting Capacity max. loading weight W_0 (24 in. aft of hitch)
		Standard for agricultural tires		
		Front Wheel: 11.2-24 / Rear Wheel: 16.9-30		
		Front	Rear	
RX6640, RX7340		62.9 in. (1,597 mm)	63.9 in. (1,623 mm)	4,327.7 lbs. (1,963 kg)



Model	Item	Actual figures		Trailer loading weight W_3 Max. capacity
		Implement weight W_1 and / or size	Max. Drawbar Load W_2	
RX6640, RX7340		Ref to page 3-15.	1,984 lbs. (900 kg)	Ref to page 3-14.
Lifting Capacity max. loading weight The max. allowable load which can be put on the 24 in. aft of hitch : W_0 Implement weight The implement's weight which can be put on the lower link : W_1 Max. drawbar load W_2 Trailer loading weight The max. loading weight for trailer (without trailer's weight) : W_3				

3

NOTE : Implement size may vary depending on soil operating conditions.

Type	R & s category vehicle brake	Trailer loading weight W: Max. capacity					
		Drawbar		Rigid drawbar		Centre-axle	
Drawbar	Unbraked (*)	Unladen(**) 1,900 kg	Laden(***) 2,950 kg	Unladen(**) 1,900 kg	Laden(***) 2,950 kg	Unladen(**) 1,900 kg	Laden(***) 2,950 kg
	Inertia-braked	6,000 kg (13,227 lbs.)		←		←	
	Hydraulic-braked	6,500 kg (14,330 lbs.)		←		←	
	Pneumatic-braked	6,500 kg (14,330 lbs.)		←		←	

(*) Unbraked trailer mass is depends on the weight conditions of the vehicle.

(**) When the vehicle conditions is unladen, the trailer mass is 1,900 kg.

(***) When the vehicle conditions is laden, the trailer mass is 2,950 kg.



in. (mm)

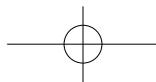
IMPLEMENT	DESCRIPTION	RX6640PC, RX7340PC(R)	REMARKS
1. Loader	Max. Bucket width	Below 84.0 (2,134)	
2. Backhoe with sub frame	Max. Digging depth	Not use	Do not use 3 - point hitch backhoe
3. Tiller	Max. width	Not use	
4. Box Blade	Max. width	Below 84.0 (2,134)	
5. Rear Blade	Max. width	Below 84.0 (2,134)	Use it only to lowest top link hole
6. Rotary Cutter	Max. width	Below 84.0 (2,134)	
7. Aerator	Max. width	Below 84.0 (2,134)	
8. Landscape Rakes	Max. width	Below 84.0 (2,134)	

3

NOTE : This is a sample of attachments commonly used. Before purchasing an implement or attaching to a Kioti tractor, please review the specifications to determine if it is a compatible product. Damages or failures due to improper or use of an attachment or implement that is not compatible will not be covered by warranty. If you have questions concerning product compatibility or warranty, please consult with your authorized KIOTI Dealer.



MEMO





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4



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4

4



EXTERIOR VIEW

CABIN

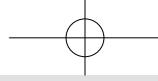


TF204B41A

- (1) Working lamp (FRT/RR)
- (2) Wiper (FRT/RR)
- (3) Rear view mirror
- (4) Turn signal lamp (FRT/RR)
- (5) Step

- (6) Bonnet/Hood
- (7) Head lamp
- (8) Top link
- (9) Lift rod
- (10) Lower link

- (11) Tail lamp (FRT/RR)
- (12) PTO shaft



ROPS



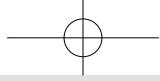
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- (1) Hood/bonnet
- (2) Steering wheel
- (3) Seat
- (4) Joystick lever
- (5) Turn signal lamp
- (6) Step

- (7) Head light
- (8) Rear view mirror
- (9) Brake lamp
- (10) ROPS
- (11) Reflector
- (12) Reversing lamp

- (13) Top link
- (14) Lift rod
- (15) Drawbar
- (16) Lower link

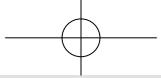
TF204C38A



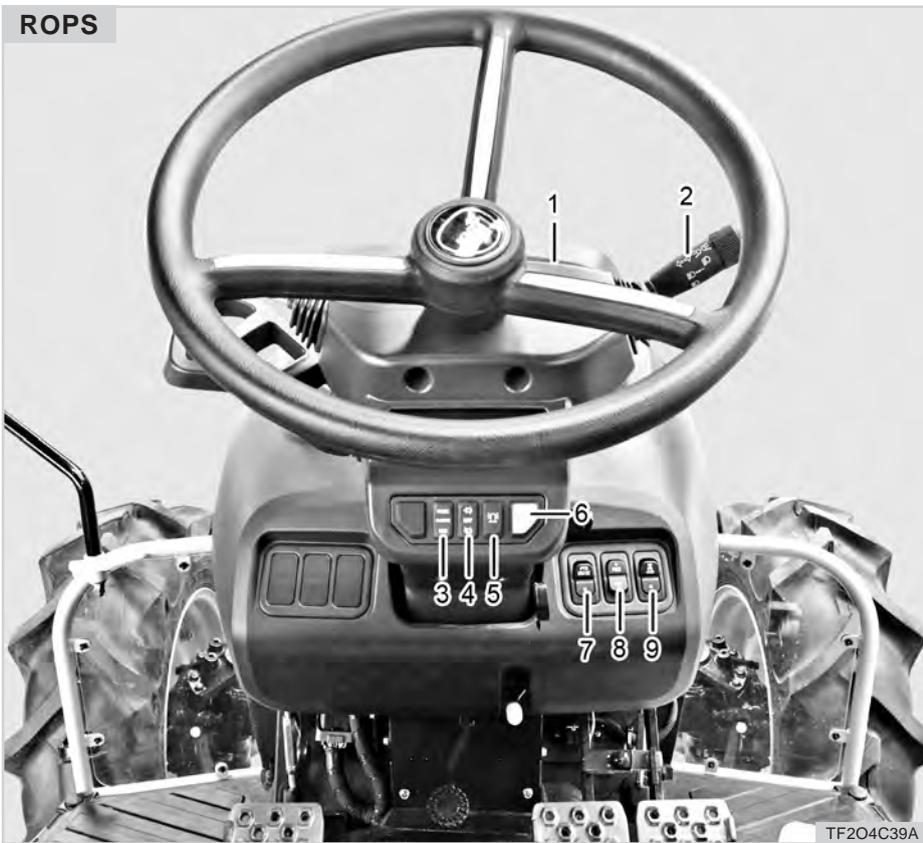
SWITCH MOUNTING LOCATION



- (1) Instrument panel
- (2) Combination switch
(Turn signals, headlights & horn)
- (3) ECO mode/ECO lamp switch
- (4) DPF regeneration switch
- (5) Beacon switch
- (6) Hazard lamp switch



ROPS

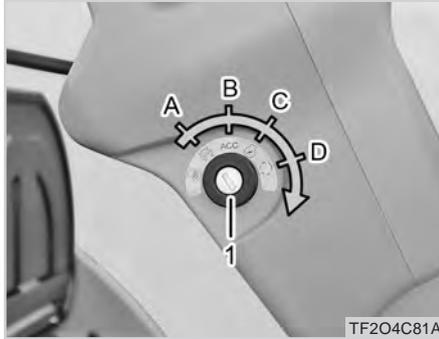


TF204C39A

- (1) Instrument panel
- (2) Combination switch
(Turn signals, headlights & horn)
- (3) ECO mode/ECO lamp switch
- (4) DPF regeneration switch
- (5) Beacon switch
- (6) Hazard lamp switch
- (7) PTO cruise switch
- (8) PTO cruise set switch
- (9) 4WD switch



KEY SWITCH



(1) Key Switch

(A) Stop

(C) ON

(B) ACC

(D) Start

• STOP (A)

When the key switch is in position "A", the engine and all electrical devices in the vehicle are turned off. However, flasher lights and turn signal lights can be operated along with their indication lamps on the dash board.

• ACC (B)

When the key switch is turned to position "B", the accessory position, the radio operates in addition to the flasher and turn signal lights.

• ON (C)

Position "C" indicates the "ON" position. As soon as the key switch is turned to this position, the instrument panel will illuminate and all of the warning indicators like the oil pressure lamp and the battery lamp will display while the automatic pre-heating function is activated (based on temperature). When the pre-heat function is operating, the corresponding lamp will display on the instrument panel for approximately 9 seconds. Wait till the lamp goes out before starting the engine.

• START (D)

Position "D" indicates "Start." In order to start the engine, make sure the PTO is off, depress the clutch pedal and rotate the key to the start position.

As soon as the engine is started, release the key then the key will return to position "C."

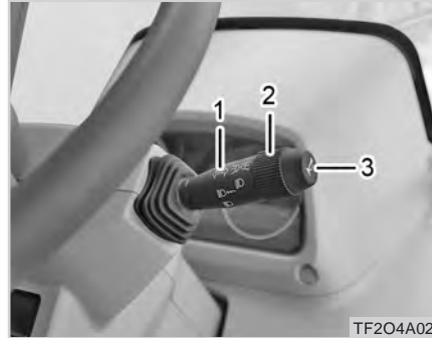
CAUTION

- **Stop the engine immediately if the oil pressure warning lamp does not go off within 5 seconds after the engine is started. The engine may be damaged if operated with low oil pressure after a few minutes.**
- **If the battery charge warning lamp does not go off after the engine is started, check the electrical systems, such as the alternator, for damage. Continuing to use the engine under this condition can discharge the battery or damage other electrical devices.**

NOTE

- The ignition is key non-directional so it is easy to insert and remove. It is not recommended to leave the tractor unattended with the key in the ignition to prevent unauthorized use of the tractor which could lead to equipment, property or personal injury.
- The horn, turn signal and hazard lamps can be operated without the key inserted.

COMBINATION SWITCH



- (1) Turn signal light switch
 (2) Head light switch (3) Horn switch

The combination switch consists of the head light, turn signal light, and horn switches. Its function by its position is as follows :

"OFF" : Head light and tail light "OFF"

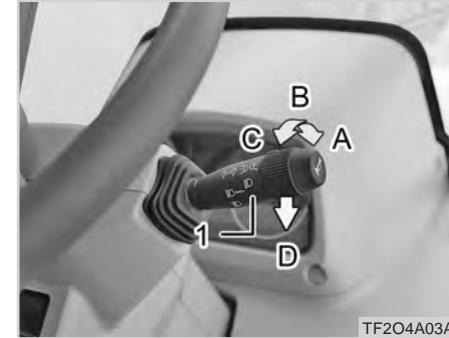
☰☉ : Low beam and tail light "ON"

☰☉ : High beam "ON"

↔ : Turn signal light and tail light "ON"

☰☉ : Head light "OFF" and tail light "ON"

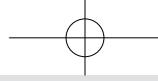
HEAD LIGHT SWITCH



- (1) Head light switch
 (A) OFF (B) Instrument panel ON
 (C) Low beam ON (D) High beam ON

The head light can only be operated while the while the key switch is turned to the "ON" position. Turning the head light switch clockwise one click will illuminate the instrument panel lights while turning it one more click will illuminate the low beam head lights.

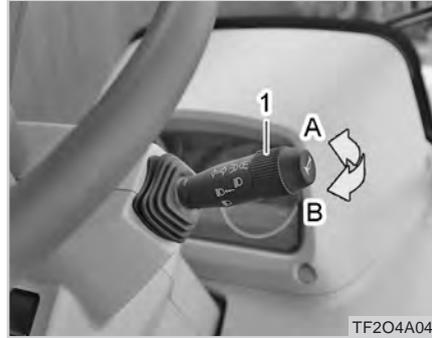
Push the stalk downward to switch to high beams. Return the stalk to it's original position to return to low beams.



⚠ WARNING

- *Driving with high beam head lights while on the road can impair an approaching vehicles visibility. When traveling on public highways, it is recommended to only use high beam headlights when necessary to gain full vision of the road ahead when there are no approaching vehicles in sight. Use the high beam head lights only if necessary.*

TURN SIGNAL LIGHT SWITCH



(1) Turn signal light switch
(A) Left turn (B) Right turn

The turn signal lights are used when turning the vehicle left or right. Pulling the lever up blinks the left turn signal light while pushing the lever down blinks the right turn signal light.

HORN SWITCH



(1) Horn switch

The horn switch can be operated without the key inserted. Press the end of the combination switch inward to sound the horn.

BEACON SWITCH



(1) Beacon switch

This is a device to indicate the slow vehicle.

Use it while driving on a public road or working. When the switch is pressed, the beacon lamp is activated. Pressing it again stops the lamp.

HAZARD LAMP SWITCH



(1) Hazard lamp switch

This switch can be used to warn other vehicles that they are approaching a low-speed tractor traveling on a public highway. Pressing this switch up illuminates the red triangle in the switch and flashes the hazard lights. When traveling on a public road, always turn the hazard lights on as a warning to approaching vehicles. When making a turn, use the turn signal switch to signal the turning direction and the light on the turning side will continue

to flash while the one on the opposite side will illuminate solid (not flashing). When the turn signal switch is returned to the off position, the hazard lights will resume flashing till the hazard lamp switch is turned off.

CAUTION

- The hazard lamps can be operated without the key inserted.
- If the hazard lamps are turned on for an extended period of time while the engine is stopped, the battery can be discharged. Therefore, use them only in emergency.

DPF REGENERATION SWITCH



(1) DPF regeneration switch
(A) Activation (B) Deactivation

DPF MANUAL REGENERATION

1. Park the tractor on a flat, level surface in an open area away from buildings or items that may be damaged by heat.
2. Place the transmission in neutral and engage the parking brake.
3. With the engine at "idle", depress the regeneration switch for 2 seconds and wait for the engine RPM's to increase.

4. Once engaged, the ECU will operate the engine on a pre-set schedule:
5. 1,500 RPM: to raise the coolant temperature to an acceptable range, approximately 10 minutes
6. MAX RPM'S: to perform the regeneration, approximately 25 minutes
7. 1,600 RPM: to allow the exhaust system an opportunity to cool down, approximately 3 minutes
8. IDLE: signifying to the operator that the manual regeneration cycle is complete
9. Once the manual regeneration function is engaged, do not change engine RPM's turn the engine off.

REGENERATION DEACTIVATION

Once underway, it is recommended to allow the regeneration process to operate normally till completion. The deactivation button allows the operator to suspend regeneration when unfavorable circumstances arise.

Examples of circumstances when regeneration should be suspended by the operator:

1. Work is complete and engine RPM's are reduced below 1,700 RPM's. In this case, the ECU will automatically suspend the regeneration until parameters to conduct regeneration or met.
2. Working in confined areas
3. Working in enclosed areas
4. Working in environments where dry vegetation or other flammable materials may be in a close proximity to the exhaust .
5. Other unfavorable conditions identified by the operator during the course of work

 **NOTE**

- The illumination timing of the regeneration process lamp may differ depending on the DPF temperature.

 **CAUTION**

Follow the recommendations outlined below to protect the engine and emissions components of your tractor.

- **Only use ULSD diesel fuel from a clean source. ULSD (Ultra-Low Sulfur Diesel, below 15 PPM Sulfur)**
- **Only use the recommended viscosity engine oil with a minimum rating of CJ-4.**
- **Always keep the engine oil in the safe operating range (as identified on the engine dipstick).**
- **Change the engine oil and filter as outlined in the recommended maintenance schedule.**
- **Avoid any unnecessary engine idling.**
- **Always idle the engine for 2 minutes after work before turning the engine off to allow sufficient time for cool down.**

 **CAUTION**

Follow the recommendations outlined below to protect the engine and emissions components of your tractor.

- **Never place the shift lever in the neutral position when driving downhill.**
- **Never use oil or fuel additives unless they meet or exceed the requirements for SAE and ASTM standards for exhaust emissions and diesel fuel for use in on-highway vehicles produced after 2010 or off-road vehicles produced after 2014.**
- **Avoid driving with any warning lamp illuminated.**
- **Always keep the engine area clean and do not allow dry debris, grass, or animal nests to accumulate underneath the hood, especially in the area of any exhaust or fuel components.**

ECO/MODE SELECTION SWITCH



TF2O4A09A

- (1) ECO/MODE selection switch
 (A) MODE switch (B) ECO switch



- (1) Mode indicator LCD
 (2) ECO lamp

- MODE Switch (A)
 Each pressing of the MODE switch changes the indication on the instrument cluster LED in the following order:



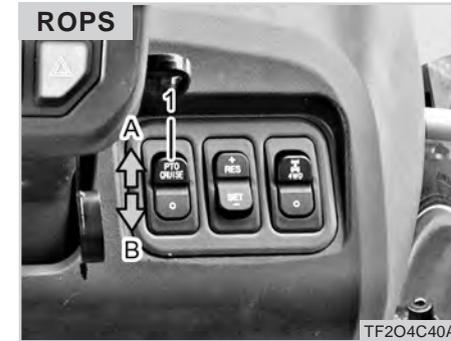
No.	ITEM	DESCRIPTION
1	Fuel Rate	Instant fuel consumption
2	Avg. FR	Average fuel consumption
3	Trip Fuel	Total fuel consumption
4	DPF in Temp	Temperature before DPF
5	DPF Soot Load	Amount of DPF Soot

- ECO Switch (B)
The ECO indicator can be turned "ON" or "OFF" by pressing the ECO switch. When "ON" the ECO indicator will illuminate in different colors reflecting the current rate of fuel consumption:
 - White illumination = economical fuel consumption.
 - Green = average fuel consumption.
 - Red = high fuel consumption.

- ECO range comparison

White	operation below 1,000 RPM's or fuel efficiency below 8 L/hr
Green	Fuel efficiency - 8 ~ 15.5L/h
Red	Fuel efficiency - greater than 15.6 L/hr

PTO CRUISE ON/OFF SWITCH



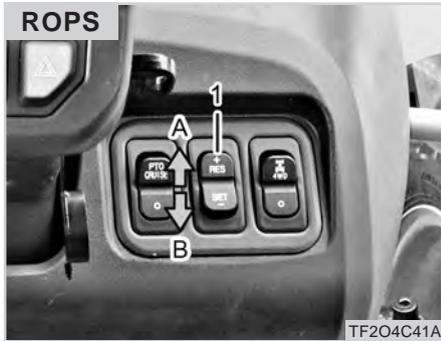
(1) PTO cruise ON/OFF switch
(A) ON (B) OFF

The cruise PTO can set the engine RPM's and enable to operator to increase/decrease by 50 RPM's each time the +/- switch is depressed.

NOTE

- Cruise PTO will only operate if the engine RPM's are set to 1,500 RPM's or above.

PTO CRUISE SET SWITCH



(1) PTO set switch
(A) Restart (Res +) (B) Setting (Set -)

To activate cruise PTO, you will need to perform the following (with engine RPM's at 1,500 or above):

- 1) Depress the cruise PTO switch to turn the function on.
- 2) Depress the -/SET switch to activate. Once activated the cruise PTO lamp will illuminate on the dash.
- 3) Toggle the +/- switch to increase or decrease engine RPM's by 50 RPM's each time.

NOTE

- Once activated, engine RPM's can not be reduced below 1,500 RPM's.

PTO CRUISE DEACTIVATION

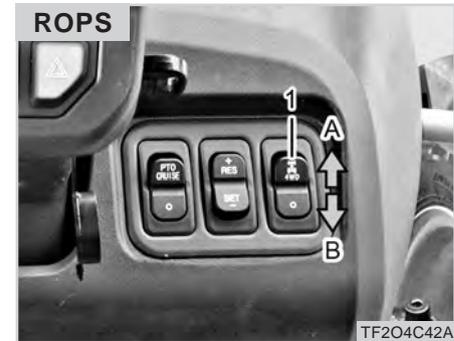
To de-activate cruise PTO, simply turn the cruise PTO switch off or depress the brake pedals or clutch pedal.

Pressing the RES(+) of PTO set switch once resumes the previous set PTO cruise.

IMPORTANT

- **If the brake pedals are not locked together, depressing the brake pedal does not deactivate the PTO cruise function.**

4WD SWITCH



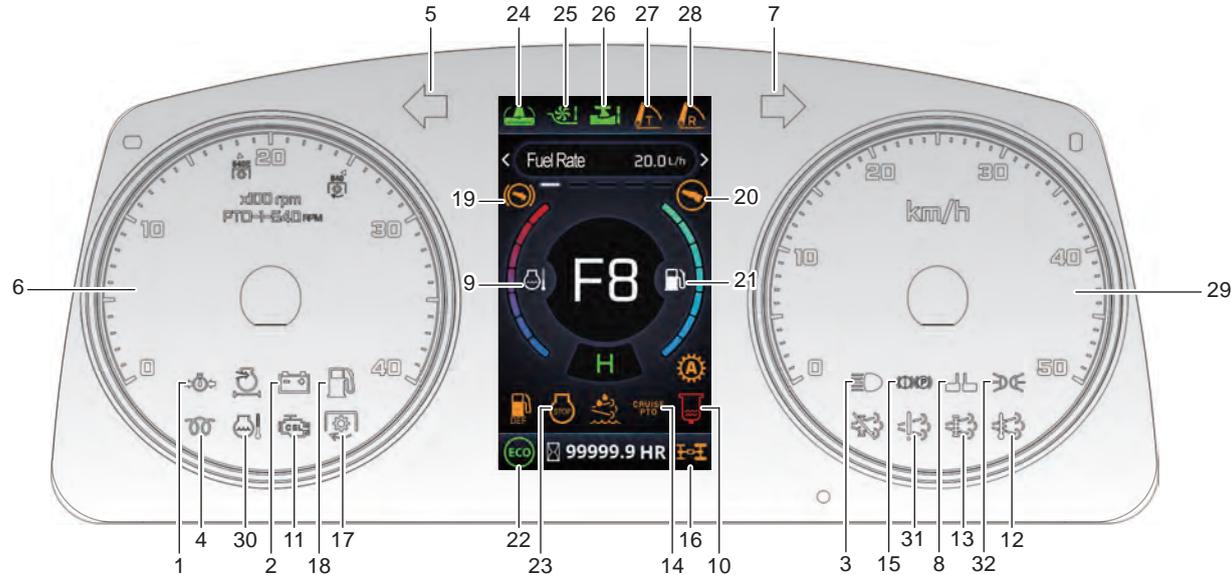
(1) 4WD switch
(A) 4WD (B) OFF

Operate the switch to select 4WD (four-wheel drive). Press the top to select 4WD mode, press the bottom to turn it off.

SWITCH	TURNING	LAMP
2WD	Normal turning	Lamp OFF
4WD	Normal turning	4WD lamp ON 

INSTRUMENT PANEL

Symbols on the instrument panel come on when the key switch is turned to the "ON" position.



TF204A99C

- | | | | |
|--------------------------------------|-------------------------------------|----------------------------------|---------------------------------------|
| (1) Engine oil pressure warning lamp | (9) Coolant temperature gauge | (17) PTO ON lamp | (25) Auto tilling depth |
| (2) Battery charge warning lamp | (10) Water sensor warning lamp | (18) Low fuel level warning lamp | (26) Auto draft |
| (3) High beam lamp | (11) Engine check lamp | (19) Easy stop | (27) Turn up |
| (4) Glow plug lamp | (12) DPF regeneration underway lamp | (20) Comfort clutch | (28) Back up |
| (5) Turn signal lamp (LH) | (13) DPF regeneration warning lamp | (21) Fuel gauge | (29) Speedometer |
| (6) Tachometer | (14) Cruise PTO lamp | (22) ECO | (30) Coolant temperature warning lamp |
| (7) Turn signal lamp (RH) | (15) Parking brake lamp | (23) Shut down | (31) Emission warning |
| (8) One side brake lamp | (16) 4WD operation lamp | (24) Horizontal auto | (32) Tail lamp |

TACHOMETER/HOURMETER



(1) Tachometer

(2) Hour meter

Engine tachometer indicates the number of engine revolutions per minute.

Hour meter indicates the total operating time of the tractor to six digits.

The hour meter does not operate if the engine is stopped even if the key switch is left in the "ON" position.

FUEL GAUGE



(1) Fuel gauge

E: Empty

F: Full

This indicates the remaining fuel level in the fuel tank after the key switch is turned to the "ON" position.

- **F** : FULL
- **E** : Empty, replenish the tank.

NOTE

- Make sure to use only genuine fuel as the engine can be damaged if unqualified fuel is used.

NOTE

- Only use ULSD diesel fuel (15 PPM sulfur) from a clean source. The fuel system and engine can be damaged if operated with fuel not meeting the proper specification.
- Use fuel for winter season in cold weather to start the engine easier.
- The fuel gauge may move on slopes or hills indicating a higher fuel level than what is actually in the tank.

ENGINE COOLANT TEMPERATURE GAUGE



(1) Coolant temperature gauge
C: Cold H: Hot

This gauge indicates the coolant temperature after the key switch is turned to the "ON" position.

- **C** : Coolant is cold.
- **H** : Coolant is hot.

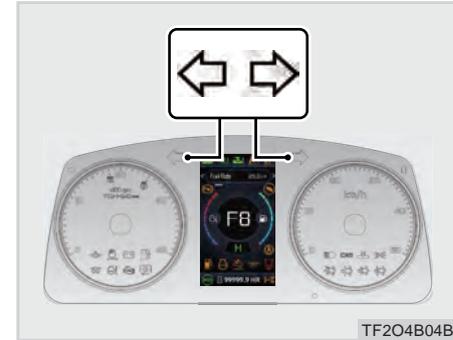
The range marked in "H" in the figure indicates an abnormal engine temperature. Reduce engine RPM and load immediately! Inspect the tractor and make sure the hood screens and radiator are clear of any debris that may limit cooling air to the radiator.

⚠ CAUTION

Control the work load! If the temperature gauge enters the "H" zone, follow these steps immediately:

- 1) Stop work immediately
- 2) Bring the engine down to a high idle (approximately 1,500 RPM's)
- 3) Allow the engine to cool for 5 minutes and return to normal operating temperature before turning the engine off.
- 4) Place the transmission in neutral, engage the parking brake, bring the engine to idle and turn the engine off. Remove the key.
- 5) Inspect the engine area to be sure the hood screens and radiator are clear of any debris to allow good airflow to the engine area.
- 6) Resume work but lighten the load to keep the coolant temperature in the normal operating range.

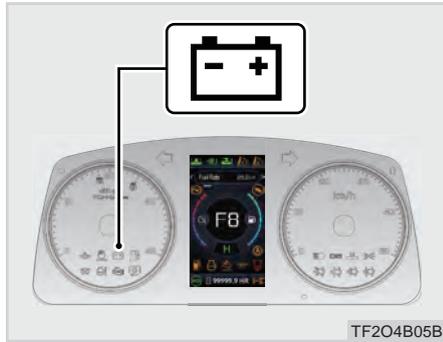
TURN SIGNAL LAMP



4

Operating the turn signal lamp switch up and down illuminates the corresponding signal lamp in green.

BATTERY CHARGING LAMP



TF204B05B

The battery charging lamp illuminates when the key switch is turned to the ON position. This lamp should go out immediately after the engine starts.

⚠ CAUTION

- **If this warning lamp comes on while driving, the charging system, such as the alternator, is malfunctioning and is not properly charging the battery. Stop use immediately and have the tractor checked by your local Authorized Kioti Dealer.**

HEAD LIGHT HIGH BEAM LAMP



TF204B06B

This lamp illuminates in blue when the high beam headlights are switched on.

Driving with high beam head lights while on the road can impair an approaching vehicles visibility. When traveling on public highways, it is recommended to only use high beam headlights when necessary to gain full vision of the road ahead when there are no approaching vehicles in sight.

GLOW PLUG INDICATOR

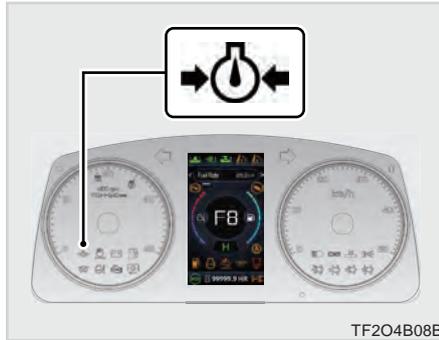


TF204B07B

When the key switch is turned to the "ON" position. The glow plug lamp illuminates (when the engine is cold). When the glow plug lamp goes out, start the engine and allow the engine to warm up for 2-5 minutes, depending on ambient temperature, before beginning work.

If the glow plug light does not illuminate, the engine does not require pre-heating and may be started immediately. It is recommended to follow the warm up procedure if the engine has not been started or operated for several hours.

ENGINE OIL PRESSURE WARNING LAMP



This lamp comes on when the engine oil pressure is low.

This lamp is turned On when the starting switch is turned On before starting the engine but turned Off after starting the engine. If this lamp comes on while driving, stop the engine immediately and check the engine oil level.

If this lamp comes on even with the specified engine oil level, stop operation immediately and have the tractor checked by your local Authorized **KI-OTI** Dealer.

CAUTION

- The engine can be severely damaged if operated when the oil level is below the minimum required range fill range.
- The engine can be severely damaged if driving or operating the tractor with the engine oil warning lamp ON.

4WD LAMP



When the 4wd is engaged, the 4WD lamp illuminates on the dashboard. The 4WD can be engaged with the 4WD switch.

When the tractor is operated with the individual brake pedals locked together, the 4WD will automatically engage under the following conditions:

- 1) When the brake pedals are depressed.

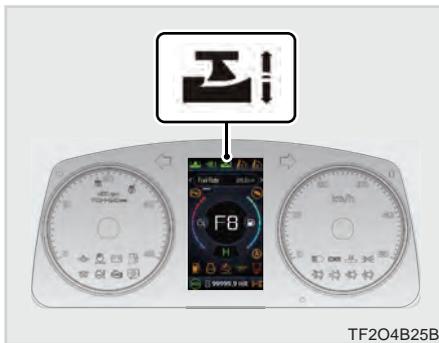
2) When the parking brake is engaged.

If the individual brake pedals are not locked together, the 4WD will not automatically engage when both brake pedals are depressed at the same time.

⚠ CAUTION

- **The durability of the axle can be deteriorated if only one brake pedal is depressed while the 4WD is activated.**

AUTO DRAFT LAMP



The draft lamp illuminates on the dashboard when the draft control has been activated. Depress the draft button one time to activate and the light will illuminate on the dashboard. To turn draft control off, depress the button a second time and the light will turn off.

PTO INDICATOR



When the PTO is engaged, the PTO lamp illuminates on the dashboard. When starting the tractor, the PTO must be in the off position. When standing up from the seat with the PTO on, the parking lamp will illuminate, and the ignition will be turned off 2 seconds after the buzzer sounds.

PARKING BRAKE LAMP

⚠ CAUTION

- Set the PTO switch to the "OFF" position in order to start the engine.



⚠ CAUTION

- If this indicator is ON even with the parking brake released, have the tractor checked by your local KIOTI dealer or workshop immediately.
- If you drive with parking brake locked, a warning lamp will turn on and off on the buzzer. (For the tractor with power shuttle)

When the parking brake is actuated, the parking brake light illuminates on the dash.

FUEL LEVEL WARNING INDICATOR



The fuel level warning lamp will illuminate on the dashboard when the fuel level in the tank drops below a safe operating level.

It is highly recommended to add fuel immediately when this light comes on to prevent damage to the engine or fuel system.

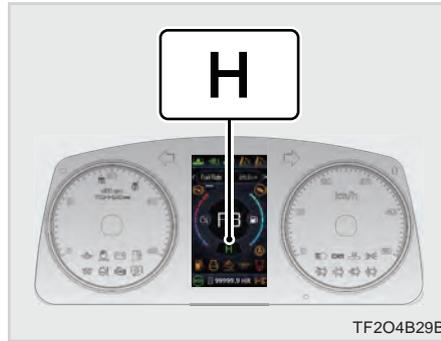
CAUTION

- If the fuel is empty, the warning indicator will turn on and off with the buzzer on the panel.
- After 30 seconds, just the indicator will stay on until filling with fuel.

COOLANT TEMPERATURE WARNING LAMP



If the coolant temperature is 239°F or above 239°F (115°C) for more than 5 seconds, buzzer is heard and lamp is turned on. Stop the engine, contact a **KIOTI** dealer immediately.

H INDICATOR

If the range shift is at high speed, this lamp turned in green.

⚠ CAUTION

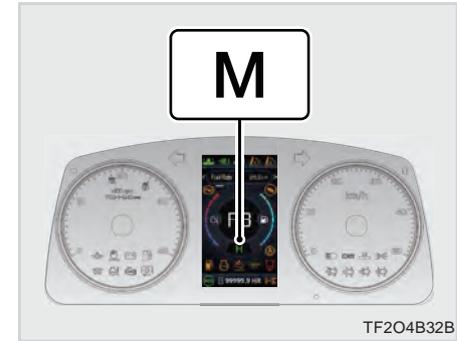
- If 2 signal among F, R and N come to the cluster, Buzzer will sound on and off for 30 sec.

L INDICATOR

If the range shift is at low speed, this lamp turned in green.

⚠ CAUTION

- If 2 signal among F, R and N come to the cluster, Buzzer will sound on and off for 30 sec.

M INDICATOR

If the range shift is at middle speed, this lamp turned in green.

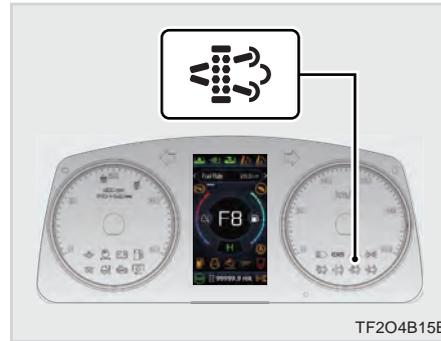
⚠ CAUTION

- If 2 signal among F, R and N come to the cluster, Buzzer will sound on and off for 30 sec.

WATER IN FUEL WARNING LAMP

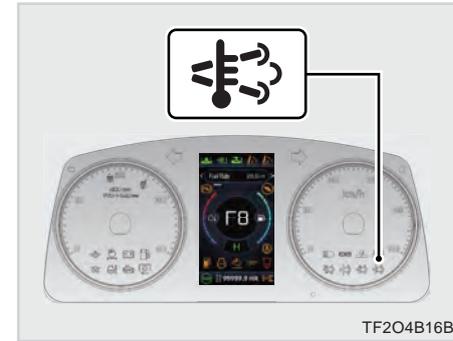
When approximately 5 ounces of water (45 cc) is accumulated in the fuel filter, the water in fuel warning lamp will illuminate on the dashboard.

When this light is on, stop the engine immediately and drain water from the fuel filter. In severe cases, more in-depth service including filter and fuel system maintenance may be required.

DPF REGENERATION WARNING LAMP

The DPF regeneration warning lamp will illuminate if there is an issue with the exhaust after treatment system. If this lamp is illuminated solid or is flashing, the after treatment system will require a manual regeneration to be performed.

Follow the steps outlined on page 4-12 to perform a manual regeneration.

DPF REGENERATION UNDER-WAY LAMP

This lamp comes on while the regeneration process is being performed in the DPF.

⊕ IMPORTANT

- If the DPF regeneration under-way lamp is illuminated during operation, please keep the engine rpm at 1,500 or greater until the regeneration is complete. Lowering the engine RPM's below 1,500 will "automatically" suspend the regeneration process until parameters are satisfied again and regeneration can resume.

⚠ WARNING

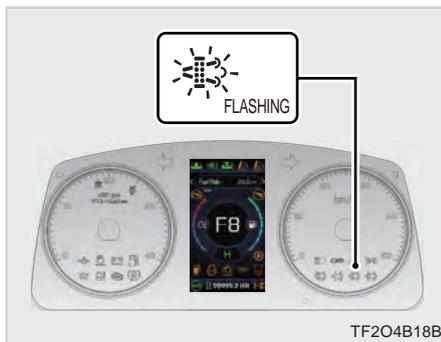
- *Exhaust components become hot during engine operation and can cause serious injury and burns.*
- *Exhaust components can reach temperatures as high as 650°C during regeneration. Keep the engine area, especially around exhaust components clear of trash and debris.*
- *Failure to keep the engine area clear of debris could lead to risk of fire.*

DPF REGENERATION WARNING LAMP



1. Stage 1 warning lamp illuminated solid
 - : DPF Soot Level 120% - 160%
 - Manual regeneration required
 - Maximum engine RPM's will be limited to 2,200.

Follow the guideline on page 4-12 to perform a manual regeneration.



2. Stage 2 warning lamp flashing.
- : DPF Soot Loading Level 160% - 200%
 - Manual regeneration required
 - Maximum engine RPM's will be limited to 2,200.

Follow the guideline on page 4-12 to perform a manual regeneration.

If the DPF is not regenerated in the stage 1 warning state, the warning lamp flashes. In this state, make sure to perform DPF regeneration process. (See page 4-27)



3. CEL is illuminated on the dashboard.
- : DPF Soot Loading Level 200% or higher
 - Manual regeneration prohibited
 - Maximum engine RPM's will be limited to 1,500.

Please contact your local Authorized **KIOTI** Dealer for assistance.

If a DPF regeneration is not performed during stage 2, the check engine lamp will illuminate and the

engine goes into a limited operational status. At this point, the DPF may require replacement.

! WARNING

- *In the warning level 3 (CEL lamp ON), both manual and automatic regeneration processes cannot be performed.*
- *When the DPF warning lamp comes on, make sure to perform the manual regeneration as the automatic regeneration cannot be performed.*

Place the transmission in neutral and engage the parking brake.

With the engine at "idle", depress the regeneration switch for 2 seconds and wait for the engine RPM's to increase.

Once engaged, the ECU will operate the engine on a pre-set schedule:

- ***1,500 RPM for 10 minutes***
- ***2,600 RPM'S for 25 minutes***
- ***1,600 RPM for 3 minutes***

⚠ WARNING

- *Once the manual regeneration function is engaged, do not:*
 - *Turn the engine off*
 - *Release the parking brake*
 - *Depress the clutch pedal*
 - *Place in gear*
 - *Try to operate the tractor*

EMISSION WARNING LAMP



The emission warning lamp will illuminate on the dashboard when an error or malfunction with the emissions system is detected.

When this light comes on, you should stop operation immediately and contact your local Authorized **KI-OTI** Dealer for assistance. Failure to stop operation and have the system diagnosed and repaired could lead to a loss of power and function.

Prolonged use without repair could lead to catastrophic engine or emissions system damage

CHECK ENGINE WARNING LAMP



The CEL lamp illuminates on the dash board when the ECU recognizes any malfunction or loss of signal from any engine or fuel sensor.

CRUISE PTO WARNING LAMP



The cruise PTO can set the engine RPM's and enable to operator to increase/decrease by 50 RPM's each time the +/- switch is depressed.

NOTE

- Cruise PTO will only operate if the engine RPM's are set to 1,500 RPM's or above.

To activate cruise PTO, you will need to perform the following,

- 1) Depress the cruise PTO switch to turn the function on.
- 2) Depress the -/SET switch to activate. Once activated the cruise PTO lamp will illuminate on the dash.
- 3) Toggle the +/- switch to increase or decrease engine RPM's by 50 RPM's each time.

NOTE

- Once activated, engine RPM's can not be reduced below 1,500 RPM's.
- To de-activate cruise PTO, simply turn the cruise pto switch off.

BRAKE (ONE SIDE) LAMP



(1) Brake Pedal Lock (Both Sides)

ERROR INDICATOR

The brake (one side) lamp will illuminate on the dashboard when the brake pedal interlock has been "unlocked". When the brake pedals are "unlocked", independent braking of the left or right side will occur by depressing the individual corresponding brake pedal.

CAUTION

When traveling on the road or at speed, be sure to "lock" the brake pedals together.

Failure to do so could cause loss of control resulting in damage to equipment, property or personal injury should a situation requiring sudden braking occur.



(1) Error code

If a general error occurs, the code will be displayed on the gear speed section of the LCD.

WARNING

- **Contact to local Authorized KIOTI Dealer.**

► GENERAL ERROR CODES

NO.	DISPLAY	DESCRIPTION
1	ERR-001	No Signal at TACHO Input
9	ERR-009	No Signal at HOUR Input

NOTE

- Some error codes may not be displayed depending on the model.

4

► POWER SHUTTLE CONTROL- LER ERROR (TCU) CODES

NO.	DISPLAY	DESCRIPTION
1	TCU001	Clutch pedal sensor
2	TCU002	Transmission oil temp. sensor

▶ HITCH CONTROLLER (HCU)

NO.	DISPLAY	DESCRIPTION
1	HCU-001	Position lever sensor error
2	HCU-002	Lift arm sensor error
3	HCU-003	Draft sensor error
4	HCU-004	Balance sensor error
5	HCU-005	Stroke sensor error
6	HCU-006	Rotary cover sensor error
7	HCU-007	Oil temp sensor error

▶ ENGINE ERROR CODES



(1) SPN code
(2) ECU: E or DCU: D
(3) FMI code



(1) Error code
(2) DCU fault diagnosis code

ECU, HCU, TCU and general error codes are shown in the gear speed section of the display.

Contact your local Authorized **KIOTI** Dealer for assistance should an error code be present in the display.

NOTE

- Refer to the trouble shooting of 10 chapter for more detail codes.

While the Key switch is ON position, the error code or diagnosis code may blink every 3 second on the panel and maintains until the causes of error are eliminated.

Error code blinking sequence: Shifting gear info > ERROR CODE (HCU → TCU1 → TCU2 → ECU → DCU)

WARNING

- Contact to local Authorized **KIOTI** Dealer.

OPERATING THE CONTROLS



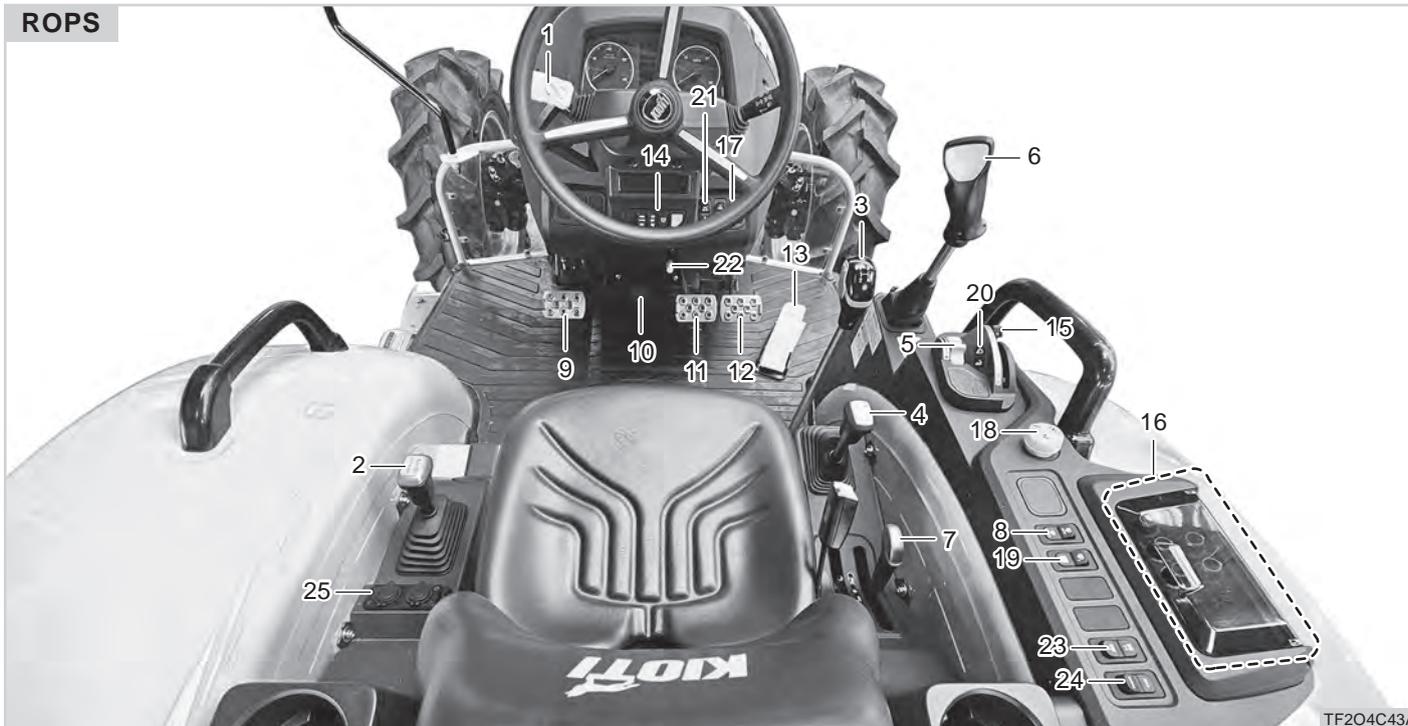
(1) Shuttle shift lever
 (2) PTO shift lever
 (3) Main shift lever
 (4) Range gear shift lever
 (5) Hand throttle lever
 (6) Joy-stick lever

(7) Double acting lever
 (8) PTO Auto/Manual switch
 (9) Clutch pedal
 (10) Tilt pedal
 (11) Brake pedal(L)
 (12) Brake pedal(R)

(13) Foot throttle
 (14) PTO Res+/Set- switch
 (15) Position control lever
 (16) Control panel
 (17) 4WD switch
 (18) PTO main switch

(19) S-PTO (Stationary PTO) switch
 (20) One-touch Up/Down Switch
 (21) PTO cruise On/Off Switch
 (22) Cabin working light/Washer fluid/Wiper control panel
 (23) Parking brake

ROPS



TF204C43A

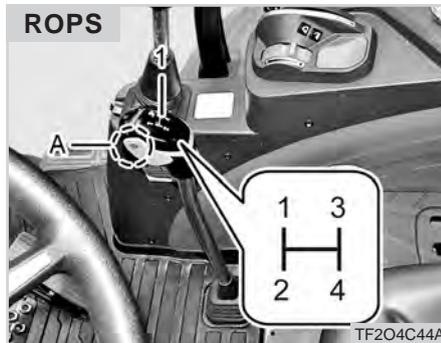
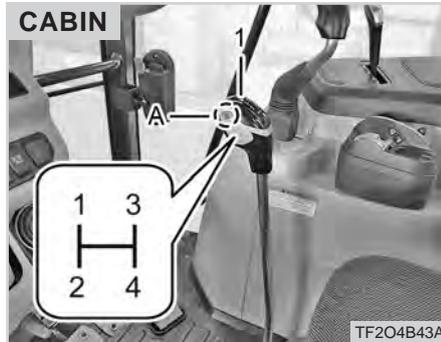
- (1) Shuttle shift lever
- (2) PTO shift lever
- (3) Main shift lever
- (4) Range gear shift lever
- (5) Hand throttle lever
- (6) Joy-stick lever
- (7) Double acting lever

- (8) PTO Auto/Manual switch
- (9) Clutch pedal
- (10) Tilt pedal
- (11) Brake pedal(L)
- (12) Brake pedal(R)
- (13) Foot throttle
- (14) PTO Res+/Set- switch

- (15) Position control lever
- (16) Control panel
- (17) 4WD switch
- (18) PTO main switch
- (19) S-PTO (Stationary PTO) switch
- (20) One-touch Up/Down switch
- (21) PTO cruise On/Off switch

- (22) Parking brake
- (23) INC+/DEC- switch
- (24) Drive/Working mode switch
- (25) Power socket & USB charging port

MAIN SHIFT LEVER



(1) Main shift lever

(A) Hand clutch

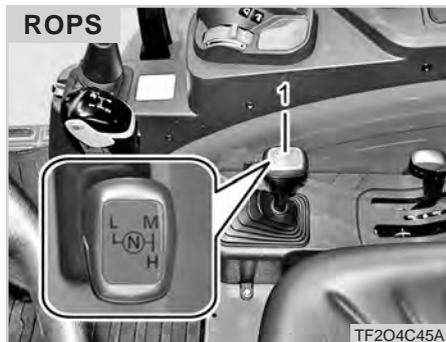
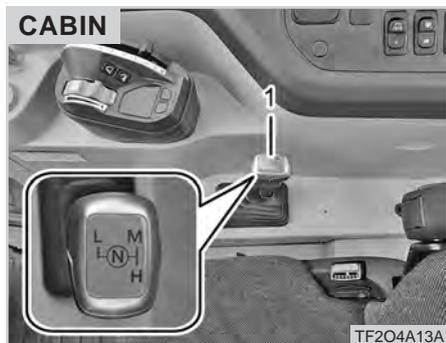
The transmission includes 4 synchromesh gears. The synchronized gears allow the operator to shift between gears 1-4 while the tractor is moving by following an "H" shift pattern as outlined in the diagram above.

HAND CLUTCH

The hand clutch is another option to disengage the clutch to allow the operator to change gears. This is an effective way to change speeds when traveling or working without having to depress and release the foot clutch.

The hand clutch is a simple "on/off" function to disengage and re-engage the clutch on a pre-set timed sequence. For applications requiring the operator to feather the clutch to creep or softly engage the clutch, the foot pedal must be used!

RANGE GEAR SHIFT LEVER



(1) Range gear shift lever

High speed, mid speed and low speed can be selected by the range shift lever.

Make sure to shift the range shift lever after the tractor is completely stopped by depressing the brake pedal.

If the lever will not move freely or a grinding noise is heard, engage and disengage the clutch and hold for 3 seconds before attempting to move the range lever.

NOTE

- In case of creep gear engaged, only L and M gear are shifted.

CAUTION

- **Before operating the range shift lever, depress the clutch pedal and confirm that the tractor is completely stopped.**
- **Avoid selecting the Driving position when driving backwards. The speed may increase, leading to a dangerous situation.**
- **When using the creep speed section (creep speed, low speed, mid speed 1), observe the following instructions to avoid malfunction:**
 1. **Cases suitable for creep speed**
 - When plowing a field deeply and heavily with a rotary tiller
 - When it is impossible to plow a hard field with a rotary tiller at the standard speed
 - When transplanting
 - When using a trencher

⚠ CAUTION

2. Cases unsuitable for creep speed

- When the tractor is stuck in the mud of a wet field
- When towing, plowing or driving with a trailer (refer to 7-7)
- When operating with a front loader
- When operating with a front snowplow
- Construction work

3. Cautions for operation at creep speed

- Make sure to release the parking brake before starting off.
- In the creep speed section, a large amount of rotating force is applied from the axle. Therefore, it is necessary to depress the clutch pedal in order for the brake pedal to function. Make sure to depress the clutch pedal first and then the brake pedal to stop the tractor.

CREEP GEAR SPEED LEVER (RX7340PCR)



(1) Creep gear speed lever

The creep speed lever can be moved up or down for shifting operation. Make sure to shift the creep speed lever with the vehicle stationary by depressing the clutch pedal.

If the lever is not moved freely or makes abnormal noise, put the lever into the neutral position, engage and disengage the clutch, and then try to shift the lever.

If the transmission temperature is low, more than normal force may be needed to operate the lever. In this case, warm up the engine sufficiently.

⚠ CAUTION

- The creep speed lever can be moved up or down for shifting operation. Make sure to shift the creep speed lever with the vehicle stationary by depressing the clutch pedal.
- If the lever is not moved freely or makes abnormal noise, put the lever into the neutral position, engage and disengage the clutch, and then try to shift the lever.
- If the transmission temperature is low, more than normal force may be needed to operate the lever. In this case, warm up the engine sufficiently.

Position the creep speed lever in the "OFF" position in normal conditions, and shift it to the "Creep gear speed" position only when necessary.

When the creep speed is selected, the rotational force of the axle has major effect on the tractor (mechanical). Misuse of this lever can result in malfunction or damage. Therefore, note the followings.

1. It is recommended to use the creep speed under the following conditions
 - When cultivating a field deeply or shallowly
 - When it is not possible to work at the standard speed due to hard soil
 - When transplanting
 - When working with a trencher (agricultural)
 - When loading or unloading during driving

2. It is recommended not to use the creep speed under the following conditions

- When getting out of a puddle in muddy area
- When towing or trailing
- When working with a loader
- When doing public works

3. Precautions for creep speed .

- Make sure to shift with the clutch pedal fully depressed.
- Start off the tractor with the parking brake released. Depress the brake pedal after disengaging the clutch to stop the tractor.

CAUTION

- **The tractor is not braked by depressing the brake pedal firmly without depressing the clutch pedal at the creep speed as rotational force of the axle has a major effect at the creep speed.**

SHUTTLE SHIFT LEVER



(1) Shuttle shift lever
(F) Forward (R) Reverse
(N) Neutral

This lever is used to select forward or reverse driving.

Simply move the lever to the forward or reverse position to quickly and efficiently shuttle between directions with or without the use of the clutch pedal.

Be sure to return the shuttle lever to the neutral position before leaving the operator's station for any reason.

 **CAUTION**

- **It is recommended to reduce the tractor's travel speed before changing directions, especially when operating with a heavy load to prevent loss of control or damage to machine or property.**

HOW TO SWITCH BETWEEN FORWARD DRIVING AND REVERSE DRIVING (P/ SHUTTLE)

- To switch between the forward driving and reverse driving, lift the lever slightly and gently push it forward to select the forward direction. Lifting the lever slightly and gently pulling it back selects the reverse direction.
- If the tractor is cold or has just been started, operate the shuttle at a low engine speed for the first 5-10 minutes to allow the engine and transmission to warm up before engaging in work.
- When the transmission temperature is cold, it is not uncommon for the shuttle to shift harsher than normal. Always warm the engine and transmission for a minimum of 5-10 minutes before engaging in work.

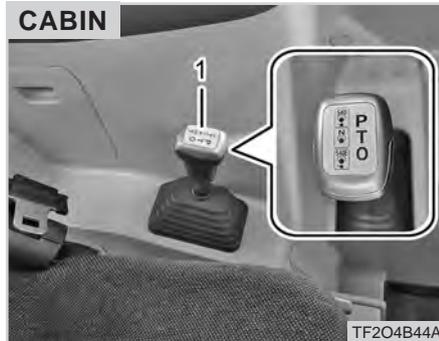
 **NOTE**

- Depending on location, a longer warm-up time may be required for extreme cold climates.
- The shuttle lever can be operated regardless of the tractor's traveling speed however, to protect the drivetrain, the shuttle will only change directions when the tractor is at speeds of 9 km/h or less.
- When placing the shuttle shift lever in the neutral position, power is cut off, resulting in decrease of the machine speed and eventually stopping of the machine.

 **CAUTION**

- **It is recommended to reduce the tractor's travel speed before changing directions, especially when operating with a heavy load to prevent loss of control or damage to machine or property.**

PTO SHIFT LEVER



(1) PTO shift lever

This lever is used to shift to one of the 2 PTO speeds as follow: (rpm)

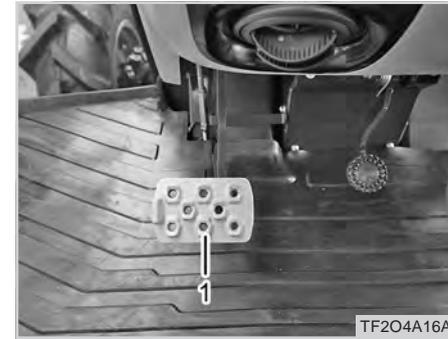
1st	2nd
540 (@2,500)	540E (@1,800)

⚠ CAUTION

To avoid personal injury :

- Disengage the PTO, place the transmission in neutral, engage the parking brake, stop the engine, remove the key and allow all rotating components to come to a complete stop before connecting, disconnecting, adjusting, or cleaning any PTO driven equipment.

CLUTCH PEDAL



(1) Clutch pedal

Make sure to depress the clutch pedal fully. To start off smoothly, put the main and range shift levers into the proper positions, shift the shuttle into the desired direction of travel and release the clutch pedal slowly.

It is possible to shift the shuttle shift lever without depressing the clutch pedal. However, the clutch pedal should be depressed in advance to cut the power before shifting the main or range shift lever into the desired position.

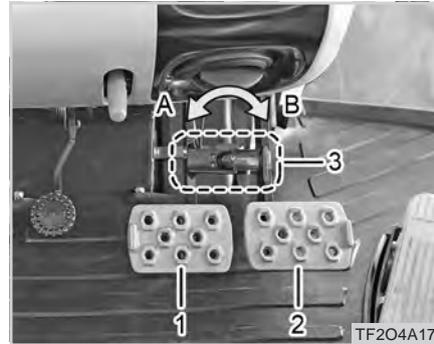
BRAKE PEDAL

⚠ CAUTION

- When releasing the pedal, remove your foot from the pedal slowly to avoid abruptly driving off.

⊕ IMPORTANT

- Never put your foot onto the clutch pedal during driving. The clutch disc can be worn prematurely.
- Be sure to depress the clutch pedal fully when shifting. Otherwise, the shift gear can be broken.
- For applications requiring the operator to feather the clutch to creep or softly engage the clutch, the foot pedal must be used!



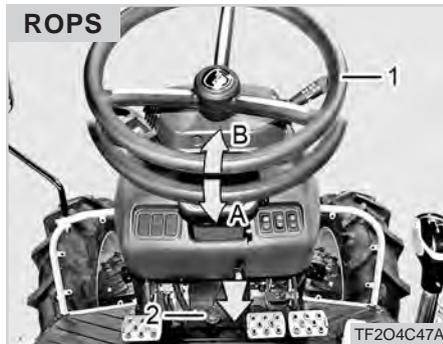
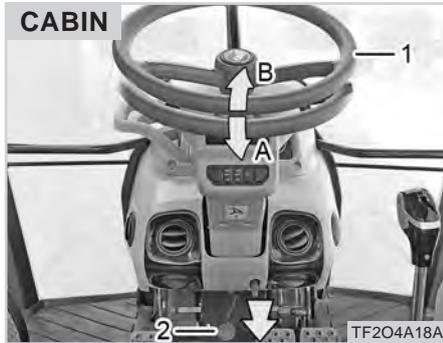
(1) Brake pedal (L) (2) Brake pedal (R)
 (3) Pedal Interlock
 (A) Unlock (B) Lock

1. Make sure to link the left and right brake pedals as shown in the figure while driving on a road. Diminished braking or loss of control could occur if only one brake pedal is depressed while traveling at high speeds.
2. To make a sharp turn in a work field, Unlock the brake lock, and then turn the steering wheel while depressing the brake pedal on the turning side.

⚠ WARNING

- When traveling on the road or at speed, be sure to "lock" the brake pedals together. Failure to do so could cause loss of control resulting in damage to equipment, property or personal injury should a situation requiring sudden braking occur.

TILT STEERING



- (1) Steering wheel
- (2) Steering wheel tilt pedal
- (A) Lowering
- (B) Lifting

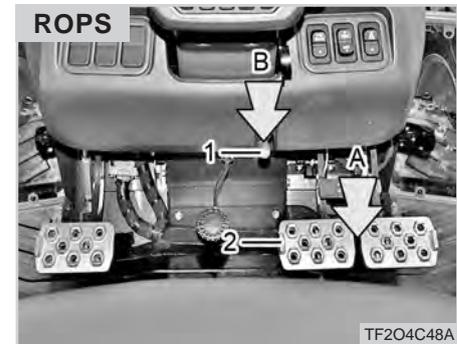
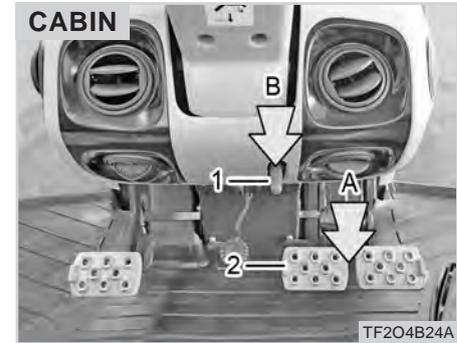
The angle of the steering wheel can be adjusted for the driver's comfort.

Hold the steering wheel with both hands, depress the tilt pedal lightly and then adjust the position of the steering wheel as desired.

CAUTION

- Do not adjust the tilt steering while driving. An accident can occur unexpectedly.

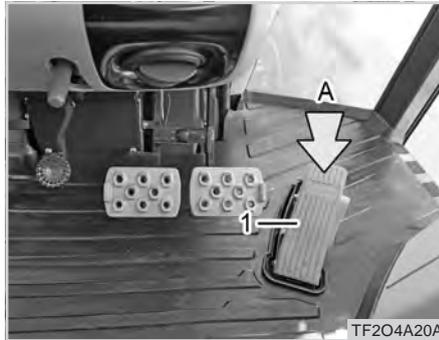
PARKING BRAKE



- (1) Parking brake lever
- (2) Brake pedals
- (A) Depressing
- (B) Pressing down

To stop the tractor, depress the brake pedal and pull the lever pressing down to apply the parking brake.

FOOT THROTTLE

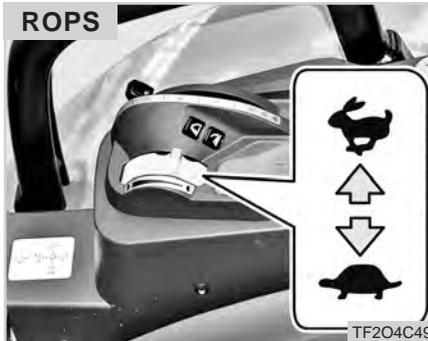
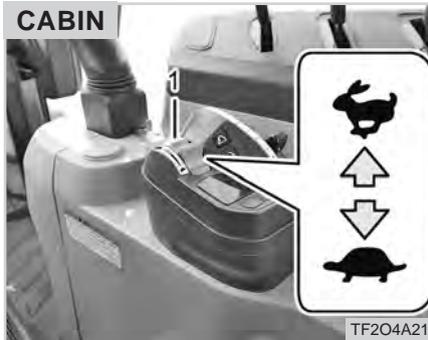


(1) Foot throttle
(A) Depress

The foot throttle controls the engine rpm. The engine rpm's increase as the foot throttle is pushed while rpm's lower as the foot throttle is released.

The foot throttle is great for traveling (shifting through the main speeds) and light duty functions where a set engine speed is not required.

HAND THROTTLE LEVER



(1) Hand throttle lever
 : "Slow"  : "Fast"

The hand throttle lever controls the engine rpm. The engine accelerates to its full speed by pushing the hand throttle lever ( position) completely forward while pulling the lever ( position) decelerates the engine.

The hand throttle lever is mainly used while working in a field, PTO applications, and when a set engine speed or high torque is required.

⚠ CAUTION

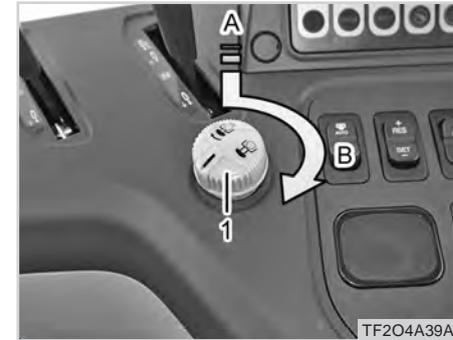
- It is recommended to use the foot throttle when traveling, especially on the road, as the operator can slow the tractor quicker as the throttle is released when the brakes are activated.
- If the engine stalls while the hand throttle lever is engaged, the engine rpm's will not respond till the lever is returned to idle (home) position and re-engaged.

PTO CONTROL / 4WD SWITCH [CABIN]



- (1) PTO main switch
 (2) PTO Auto/Manual switch
 (3) S-PTO (Stationary PTO) switch
 (4) 4WD switch
 (5) PTO cruise On/Off switch
 (6) PTO Res+/Set- switch

PTO MAIN SWITCH



- (1) PTO main switch
 (A) Press (B) Turn

The PTO switch turns the PTO on/off to supply power from the tractor to the implement.

Press and turn the knob clockwise to engage to the PTO. To disengage the PTO, just push down the knob slightly. Then, the switch knob is returned to its original position.

Make sure to put this switch into the "OFF" position before starting. Otherwise, the engine cannot be started.

The rear PTO rotates at 540 rpm (or the rated speed based on the PTO shift lever position) when the engine speed is approx. 2,115 rpm.

IMPORTANT

- When engaging the PTO, lower the engine speed, engage the PTO, and then increase the engine RPM's gradually in order to prevent impact load to the PTO from sudden or harsh engagement.

CAUTION

To avoid personal injury and/or accidental equipment damage :

- Before connecting or disconnecting anything from the PTO, be sure the PTO switch is in the "OFF" position, the transmission is in neutral, the parking brake is engaged, the engine is off and the key has been removed from the ignition.

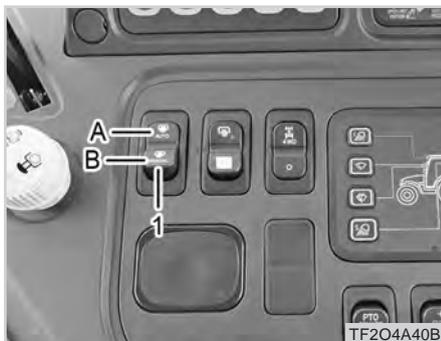
CAUTION

- Inspect the tractor PTO safety shield before and after each use. The shield should be in place, free of cracks, breaks or damage and should cover the tractor PTO shaft from the top and sides.
- Always inspect the implement PTO shaft safety shielding before connecting the PTO shaft to the tractor. All shields should be in place, free of cracks, breaks or damage and should rotate independently of the PTO shaft itself.
- Use caution when working around rotating PTO shafts. Wear tight fitting clothing and keep hair and jewelry tucked neatly away. Remember, loose clothing, hair and jewelry can quickly be snagged by a rotating shaft causing severe injury or death.

CAUTION

- Keep people away from the tractor and implement while working. Always keep people away from rotating shafts/PTO while in operation.

PTO AUTO/MANUAL SWITCH



(1) PTO Auto/Manual switch

(A) PTO - Auto (B) PTO - Manual

The PTO main switch must be in the OFF position before starting the engine. Otherwise, the engine will not start.

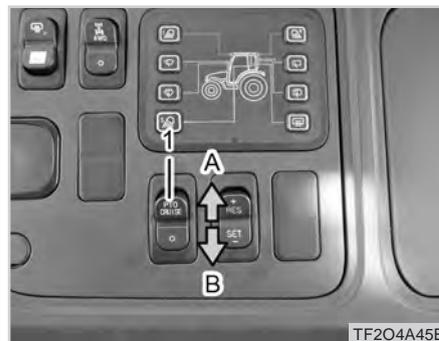
In "AUTO" mode, the PTO will turn on/off automatically based on the position of the 3-pt hitch (when the PTO "ON/OFF" switch is in the ON position). When the lift arms are lowered, the PTO will engage. When the lift arms are raised, the PTO will turn off.

In "MANUAL" mode, PTO operation is controlled by the PTO "ON/OFF" switch only. When the PTO switch is in the ON position, the PTO remains on, regardless of the position of the lift arms. When the PTO switch is placed in the OFF position, the PTO turns off.

⊕ IMPORTANT

- **When engaging the PTO, lower the engine speed, engage the PTO, and then increase the engine RPM's gradually in order to prevent impact load to the PTO from abrupt operation.**

PTO CRUISE ON/OFF SWITCH



(1) PTO cruise ON/OFF switch

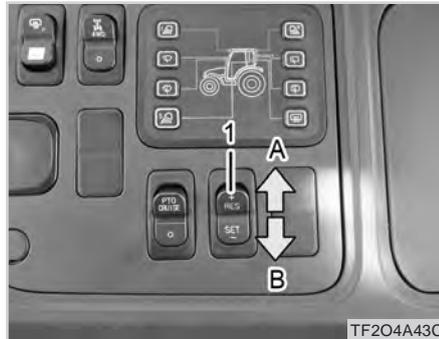
(A) ON (B) OFF

The cruise PTO can set the engine RPM's and enable to operator to increase/decrease by 50 RPM's each time the +/- switch is depressed.

📖 NOTE

- Cruise PTO will only operate if the engine RPM's are set to 1,500 RPM's or above.

PTO CRUISE SET SWITCH PTO CRUISE ACTIVATION



(1) PTO set switch
(A) Restart (Res +) (B) Setting (Set -)

To activate cruise PTO, you will need to perform the following (with engine RPM's at 1,500 or above):

- 1) Depress the cruise PTO switch to turn the function on.
- 2) Depress the -/SET switch to activate. Once activated the cruise PTO lamp will illuminate on the dash.
- 3) Toggle the +/- switch to increase or decrease engine RPM's by 50 RPM's each time.

NOTE

- Once activated, engine RPM's can not be reduced below 1,500 RPM's.

PTO CRUISE DEACTIVATION

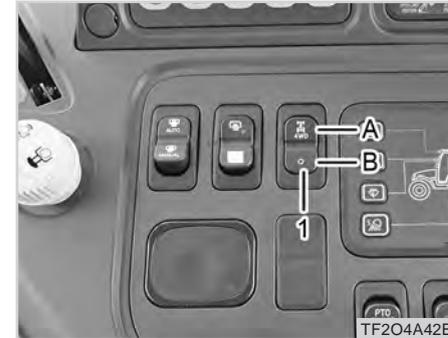
To de-activate cruise PTO, simply turn the cruise PTO switch off or depress the brake pedals or clutch pedal.

Pressing the RES(+) of PTO set switch once resumes the previous set PTO cruise.

IMPORTANT

- **If the brake pedals are not locked together, depressing the brake pedal does not deactivate the PTO cruise function.**

4WD SWITCH



(1) 4WD switch
(A) 4WD (B) OFF

Operate the switch to select 4WD (four-wheel drive). Press the top to select 4WD mode, press the bottom to turn it off.

SWITCH	TURNING	LAMP
2WD	Normal turning	Lamp OFF
4WD	Normal turning	4WD lamp ON



 **CAUTION**

- **Do not activate the 4WD function on a paved road or while driving at a high speed. It may cause damage to the tractor, premature axle or gear failure or lead to an accident.**
- **Before driving at a high speed, confirm that the switch is set in the 2WD position. If driving at a high speed with the 4WD function activated, the tires can be rapidly worn.**

4WD OPERATION

The 4WD function is used to increase traction power by driving the front and rear wheels (4 wheels). To engage the 4WD, press the upper section of the 4WD switch. 4WD operation is controlled electronically when the engagement button is depressed. Engagement can be performed while the unit is moving if additional traction is required.

The 4WD function is useful under the following conditions:

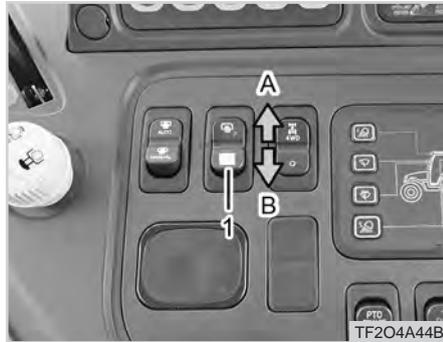
1. When additional traction is required due to soil conditions, wet environments, etc.
2. When towing a trailer or using a loader.
3. When working on sand.
4. When working on uneven terrain or on slopes.

 **CAUTION**

To avoid accidents:

- **Do not activate the 4WD function while driving on a road. The 4WD should not be used on a paved road as driving characteristics change and could lead to loss of control and/or premature driveline damage.**
- **While the 4WD is engaged, drive the vehicle at low speeds as steering and braking characteristics may differ.**
- **The 4WD can be activated even while the vehicle is moving. However, noise or shift shock may occur during 4WD engagement in this case. To ensure safe driving, it is recommended to engage the 4WD after bringing the machine to a complete stop.**

S-PTO SWITCH



(1) S-PTO(Stationary PTO) switch
(A) ON (B) OFF

While S-PTO is working the Driver can use PTO working without sitting on seat.

In order to perform rear PTO operations with the tractor stopped, turn the S-PTO switch "ON"; when the S-PTO operating conditions are met, the rear PTO continues running even if the driver leaves the driver's seat.

⊕ IMPORTANT

S-PTO operating conditions:

- With sitting on SEAT, Transmission is in NEUTRAL, Main PTO switch is ON and Parking brake is LOCKED. Press S-PTO switch for more than 2 seconds.
- If the led of S-PTO switch turns on under conditions above, S-PTO function works while leaving off seat.

If the S-PTO operating conditions are not met the engine remains on and the rear PTO stops.

SWITCH PANEL [CABIN]



(1) Response Setting buttons

(2) Calibration button

(3) Comfort clutch button

WORK/DRIVE RESPONSE BUTTON

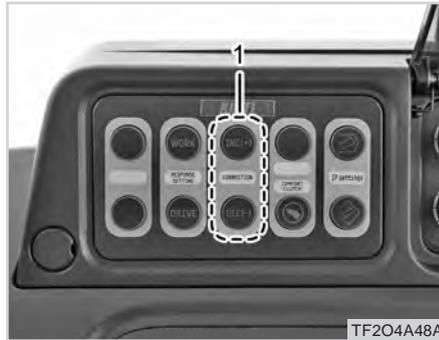


(1) Working mode (2) Driving mode

Press the Work or Drive button to operate the tractor according to the usage.

CAUTION

- **Make sure to press the Work button before any agricultural work.**

CALIBRATION BUTTON

(1) Calibration button

The calibration button is used for the tuning and adjustment of the shuttle controls, clutch pedal or after repairs have been performed. Do not attempt to adjust the functions of the shuttle or clutch by yourself. Please contact your authorized **KIOTI** Dealer for assistance.

COMFORT CLUTCH BUTTON

(1) Comfort clutch button

This is for the smoother clutch engaging while releasing clutch pedal. In order to use it, Press the button and than the button light comes on. Even if releasing clutch pedal quickly, it could be started move smoothly like usage of shuttle lever.

NOTE

- The comfort clutch button restores its last state even after the engine is restarted.



POSITION CONTROL LEVER AND SWITCH



(1) Position control lever
(2) One-touch switch(Lift/Lower)

Three-point operation can be controlled using the one-touch switch or the position control lever mounted in the arm rest.

1. Position control lever

This lever is used to adjust and maintain the implement in a certain position. Push it down to lower the implement and pull it up to lift the implement.

To set the lever in the transport position, move the lever rearward to the maximum height. Gently shift the lever away from you and slide rearward to align the lever into the transport position which locks the lever in place.

2. One-touch lifting/lowering switch

Press the lifting switch once to lift the lift arm up to the position set by the upper limit position dial (page 4-55). Pressing the lowering switch once lowers the lift arms to the lower limit set by the position control lever.

CAUTION

- The position control lever will move with minimal force from the fingers. The lever can be damaged if a heavy force is applied.

THREE-POINT SETTINGS

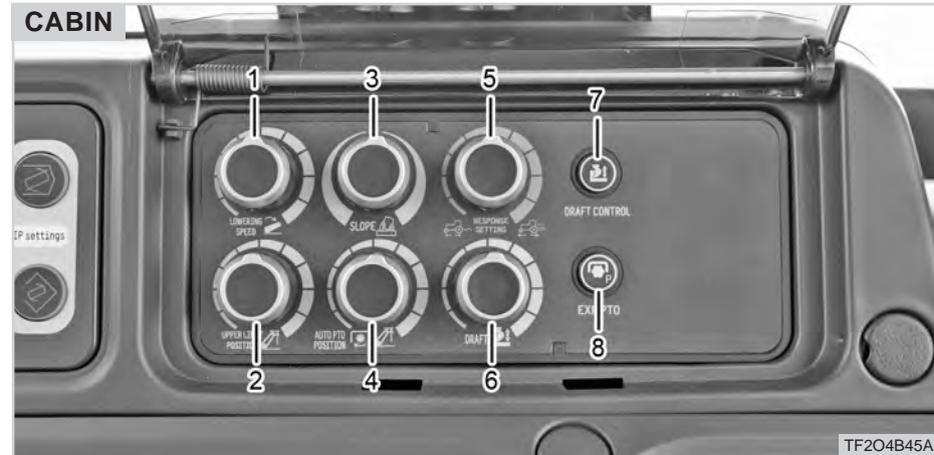
NOTE

SAFETY LOCK function is applied on.

- To ensure the driver's safety, the implement cannot be raised or lowered after the engine has been turned off.
- If the position control lever is moved after the engine is turned off, the three-point hitch will not adjust to the new setting after the engine is re-started.

To release the SAFETY LOCK function:

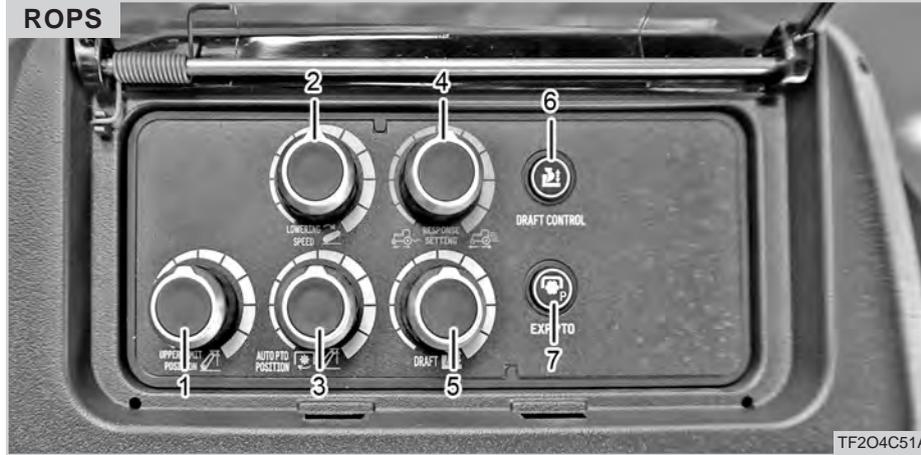
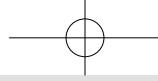
- start the engine cycle the position control lever or press the up/down button
- After the safety lock function is released, the lift will function normally.



- (1) Lowering speed set dial
 (2) Upper limit position dial
 (3) Slope dial (if equipped)

- (4) PTO disengagement position dial
 (5) Response setting dial
 (6) Draft control dial

- (7) Draft control button
 (8) External PTO control button



- (1) Upper limit position dial
- (2) Lowering speed set dial
- (3) PTO disengagement position dial
- (4) Response setting dial
- (5) Draft control dial
- (6) Draft control button
- (7) External PTO control button

LOWERING SPEED SET DIAL CABIN



Adjusts the lowering speed of the implement.

Turning the dial to the left decrease the lowering speed of the implement.

Turning the dial to the right increases the lowering speed of the implement.

The implement cannot be lowered if the dial is turned all the way to the left.

UPPER LIMIT POSITION DIAL



It sets the upper limit for the lower links when using the lift/lower switch, the Turn/lift function or the Reverse/lift function.

Turning the dial to the left lowers the maximum lifting height of the implement.

Turning the dial to the right increases the maximum lifting height of the implement.

SLOPE DIAL(IF EQUIPPED)[CABIN]

This dial is used to adjust the height of the lift cylinder on inclination.

Set the dial in the neutral (center) position to set the implement horizontally. Turning the dial to the left lowers the left end of the implement while turning the dial to the right lowers the right end of the implement.

**AUTO PTO POSITION DIAL
CABIN****ROPS**

Adjusts the upper limit for the lower links to turn the PTO off "automatically" when the three-point is raised while operating the PTO in the "auto" mode. When the three-point is lowered, the same set-point will "automatically" turn the PTO back on.

RESPONSE SETTING DIAL**CABIN**

TF204B50A

The power shuttle clutch engaging sensitivity can be adjusted by the dial as indicated in the picture.

Adjust it in accordance with the work condition.

- Center: Medium engaging speed
- LH: Slow engaging speed
- RH: Fast engaging speed

DRAFT CONTROL DIAL**CABIN**

TF204B51A

ROPS

TF204C65A

ROPS

TF204C66A

Adjusts the depth of the implement (DRAFT) when pulling a three-point tillage implement like a plow.

Turning the dial to the left decreases the draft and decreases the overall depth of the implement.

Turning the dial to the right increases the draft and the overall depth of the implement

DRAFT CONTROL



It sets the draft function.

In case of works with tillage implements it adjusts automatically the depth of implements like plows according to set-point of draft control dial.



(1) Auto draft button

REMOTE PTO FUNCTION**CABIN**

TF2O4B53A

ROPS

TF2O4C68A

(1) External PTO switch

The external PTO function is for using PTO outside without any driver sitting on seat.

- activated by using the external PTO
- switch mounted on the left rear fender
- after the remote PTO button is turned "ON".

The external PTO switch can be used to perform the following functions:

CABIN

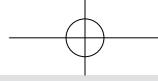
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4

ROPS

TF2O4C69A

(1) Remote PTO switch



1. To rotate the PTO shaft slowly to align the splines of the tractor shaft with the splines of the implement PTO shaft.

To rotate the PTO shaft from the rear of the tractor as a connection aide, perform the following steps:

- Transmission and shuttle are in neutral
- Parking brake is engaged
- The engine is at idle
- The PTO switch is ON.
- External PTO switch is ON.
- Depress the remote PTO switch on the tractor fender. The PTO will rotate slowly to aide in the connection of the implement PTO shaft.

2. To engage the PTO from the rear of the tractor to utilize the tractor as a stationary power unit when the Remote PTO Switch is activated in the cabin.

To utilize the tractor as a stationary power unit, perform the following steps:

- Transmission and shuttle are in neutral
- Parking brake is engaged
- The engine is at idle
- The PTO switch is ON
- Auto/Manual switch in "Manual"
- The remote PTO switch is on at this point, a buzzer will sound in the cabin signifying that you can leave the operator's station.
- Depress the external PTO switch and hold for 4 seconds and the PTO shaft will begin to rotate. (The buzzer in the cab silences)
- Return to the cab and increase the engine RPM's gradually in order to prevent impact load to the PTO from sudden or harsh engagement.

3. Deactivation

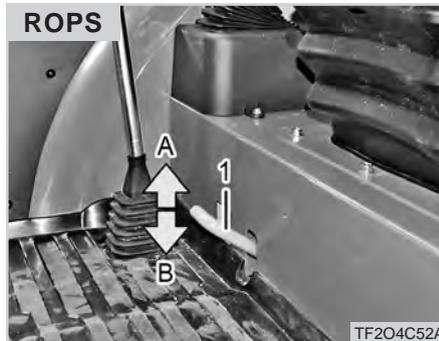
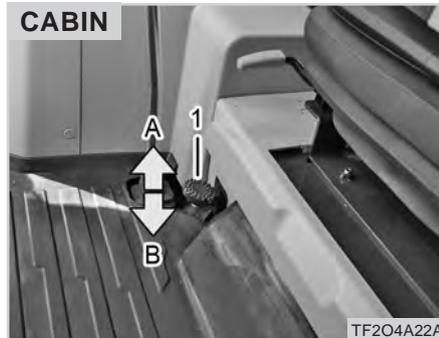
While the PTO shaft rotates, it can be deactivated under the following conditions.

- The external PTO switch is pressed once.
- The remote PTO switch(in cabin) is turned off.
- The Main PTO switch is turned off.

 **NOTE**

- The PTO is automatically deactivated if the parking lever is released, while the PTO is being controlled with the external PTO switch. Therefore, avoid releasing the parking brake or driving the vehicle while controlling the PTO with the external switch in order to prevent injury.

DIFFERENTIAL LOCK PEDAL



- (1) Differential lock pedal
 (A) Release to "DISENGAGE"
 (B) Depress to "ENGAGE"

The differential lock is a traction aide that engages the rear differential to rotate both rear wheels at the same speed.

Depressing the pedal engages the differential lock while releasing the pedal disengages the differential lock. Use this system under the following conditions:

1. When any wheel slips and the tractor does not move in the field.

CAUTION

- **The differential lock should only be engaged while driving the tractor at slow speeds. If the differential lock pedal does not move or the differential lock does not engage, release the pedal and depress it again.**
- **When engaging the differential lock, reduce the engine speed. After engaging it, increase the engine RPM's as needed.**
- **Make sure to set the steering wheel in the straight ahead position while the differential lock is in use. Otherwise, the differential system can be damaged.**

SEAT ADJUSTMENT

SEAT SLIDING



(1) Seat adjustment lever

To adjust the seat position, raise lever (1) and slide the seat to the desired position, and then release the lever.

Make sure that the seat is firmly fixed by moving it gently after adjustment.

⚠ WARNING

- *Never Leave the driver's seat while the engine running.*
- *Before leaving the seat, always set the parking brake, place the transmission in neutral, lower all implements or attachments to the ground, shut the engine off and remove the key.*

⚠ CAUTION

- **Do not put a hand between the seat and the slides when adjusting the seat position to prevent accidental injury to the hands or fingers.**

SEAT BACK RECLINING



(1) Seat back adjustment lever

To change the seat back angle, raise the lever (1) on the left of the seat.

And adjust the recline angle of the seat. Release the lever to allow the seat to lock in the desired recline position.

ADJUSTING ARMREST ANGLE CABIN



(1) Angle adjustment wheel

The angle of the armrest can be adjusted by turning the angle adjustment wheel which is located under the left and right hand armrest individually.

ADJUSTING THE HEADREST HEIGHT CABIN



(1) Headrest

The height of the headrest can be adjusted easily by pulling it up or pushing it down.

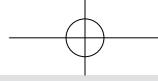
ADJUSTING AIR SUSPENSION CABIN



(1) Adjustment lever (2) gauge

The seat cushion can be adjusted according to the weight of the operator. If needed the adjustment of weight, adjust the weight and height of seat with its lever while seeing the gauge.

Move the cushion adjustment lever on the front of the seat upward to soften the cushion, and move it downward to harden the cushion.



CUSHION STRENGTH ADJUSTMENT ROPS



(1) Cushion Adjustment Lever

The seat cushion can be adjusted according to the weight of the driver. Turning the cushion adjustment lever counterclockwise to the 50 kg position makes the cushion lighter, and turning the lever clockwise to the 120 kg position makes the cushion heavier.

SEAT BELT



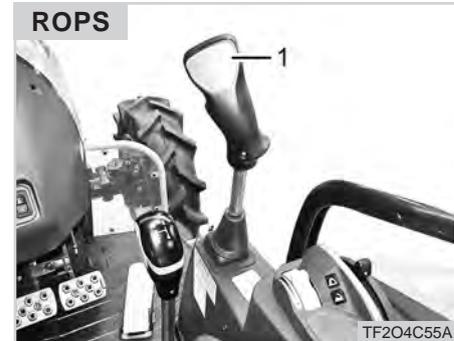
(1) Seat belt

The seat belt is self-retracting type. Always, fasten the seat belt before operating the tractor.

JOYSTICK LEVER

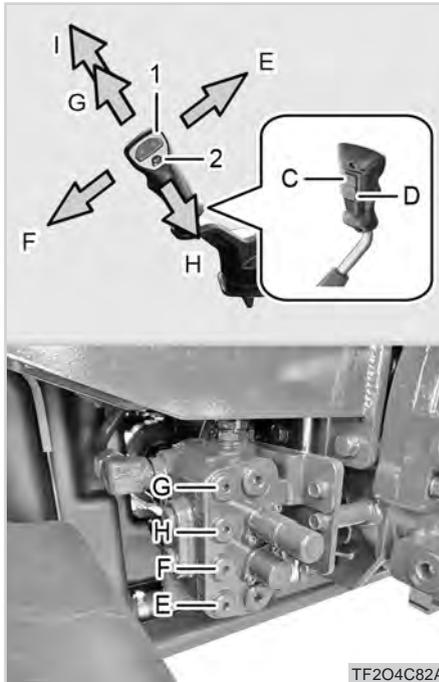


ROPS



(1) Joystick lever

This joystick lever is used to operate the front end loader when attached to the tractor.



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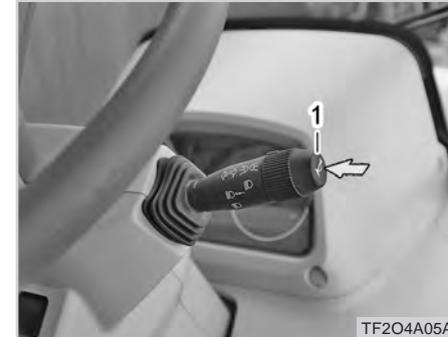
- (1) Joystick lever (2) Horn switch
 (C) Releasing grab (D) Engaging grab
 (E) Bucket roll back (F) Bucket dump
 (G) Boom down (H) Boom up
 (I) Boom floating

Four valves are installed as standard. The vertical movement of the bucket and boom can be controlled by the lever (↕).

In addition, three buttons are available; the implement grab can be operated using the two buttons located on the front section of the joystick lever (optional function). The button on the rear section of the lever is used to sound the horn.

C		Releasing grab	D		Engaging grab
E		Bucket roll-back	F		Bucket dump
G		Boom Down	H		Boom Up
I		Boom floating			

HORN SWITCH



TF204A05A

4

CABIN

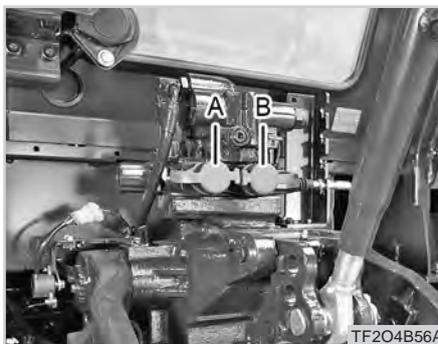


TF204B63B

- (1) Horn switch (2) Joystick lever

The horn switch can be operated without the key inserted. Pressing this switch sounds the horn.

DOUBLE ACTING LEVER



(1) Double acting lever (Self-return type)
(A) Port A (B) Port B

The double acting lever is used to control an auxiliary hydraulic implement installed to rear.

Pushing the lever supplies hydraulic fluid to Port "B", while pulling the lever supplies hydraulic fluid to Port "A".

See chapter 5, "Operation" for details.

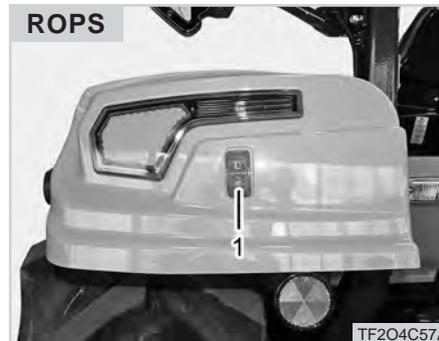
⚠ WARNING

- *Put the detent valve (if equipped) operating lever into the neutral position when the hydraulic implement is not in use. If the detent valve is kept in the operating position for an extended period of time, the relief valve is kept open and the temperature of the hydraulic fluid rises, leading to damage of various hydraulic parts, such as the oil seals and O-rings.*

📖 NOTE

- Empty slots are used for stacked double acting valves.

EXTERNAL LIFT SWITCH



(1) External lift switch (RH)

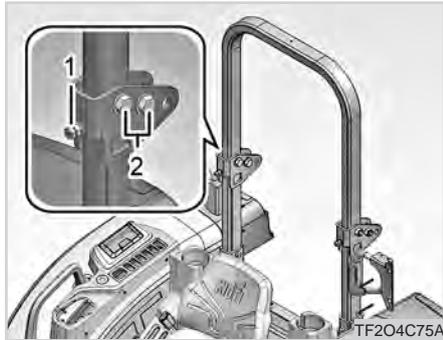
(1) External lift switch (LH)

To make implements easier to remove and install, there are lift control switches installed on the left-hand and right-hand fenders. The safety lock function is also activated after the lift control switch is operated. This prevents lifting from being performed when the position control lever in the cabin is operated. In this case, deactivate the safety lock function before using the lever. (For detailed information, refer to the description of the "external lift control switch" in the section "Function Description and Operating Tips.")

 **NOTE**

- Once the external position control switch is operated, the safety lock is activated. To control lifting in the cabin, deactivate the SAFETY LOCK.

HOW TO FOLD ROPS



(1) Knock Bolt

(2) Mounting Bolt

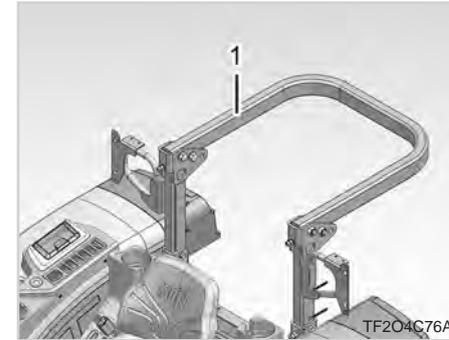
1. Unscrew the knock bolt. Then, loosen the mounting bolts.

⚠ CAUTION

- You should always stop the engine, remove the key and set the parking brake before raising or folding the ROPS.
- Always perform such tasks from a safe and stable position at the rear of the tractor.

⚠ CAUTION

- It is very dangerous to drive with the ROPS folded. Fold the ROPS only when there is absolutely no possibility for roll over. If the situation changes, raise the ROPS upright immediately.



(1) ROPS

2. Fold the ROPS.

⚠ CAUTION

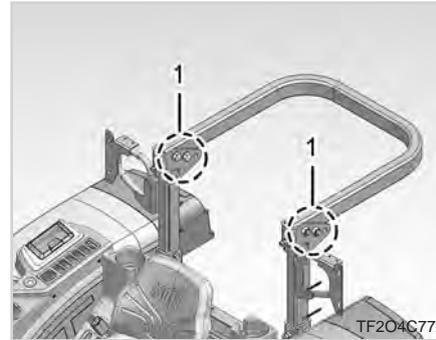
To avoid accidents:

- Hold the ROPS tightly with both hands and fold the ROPS slowly and carefully.

3. Align the bolt holes and fit the mounting bolt to them.

⚠ CAUTION

- To avoid accidents:
- Fix the mounting bolts firmly and secure the frame with the knock bolt.

HOW TO RAISE ROPS TO UPRIGHT POSITION**(1) Mounting Bolt**

1. Unscrew the mounting bolts.
2. Set the ROPS in the upright position.
3. Align the bolt holes and fit the mounting bolts to them.
4. Tighten the knock bolt and fix it with the nut.

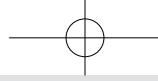
⚠ CAUTION

To avoid accidents:

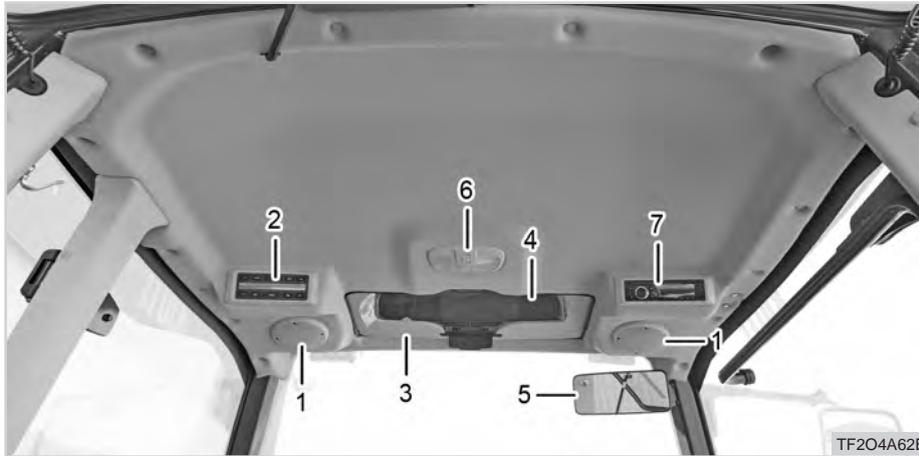
- Make sure to set the ROPS upright and fasten the seat belt during work. If it is necessary to work with ROPS folded, do not fasten the seat belt. Fastening seat belt with folded ROPS can be dangerous in case of tractor rollover.

⊕ IMPORTANT

- ROPS (Roll Over Protective Structure), sun canopy are not a FOPS (Falling Object Protective Structure). It never can protect the riders against falling objects. Avoid driving the vehicle into a dangerous area such as falling rocks zone. Otherwise, it may lead to a serious injury.

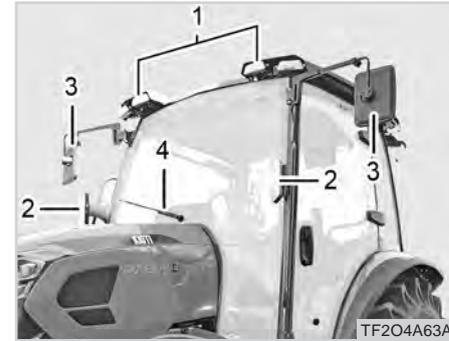


CABIN SYSTEM INTERIOR DEVICES



- (1) Speaker
- (2) Heater/air conditioner controller
- (3) Sun roof
- (4) Sun visor
- (5) Rear view mirror (Option)
- (6) Room lamp
- (7) Bluetooth player/radio

EXTERIOR DEVICES

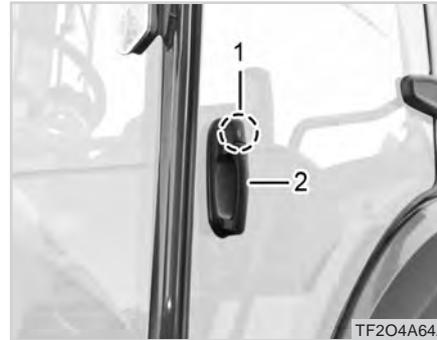


- (1) Work lamp
- (2) Turn signal lamp
- (3) Side view mirror
- (4) Wiper

1. The cabin is designed optimally for the driver's comfort and convenience.
2. This tractor has large windows and side view mirrors for excellent visibility in all directions.
3. The cabin can be kept comfortable and pleasant with factory installed heat and air for your convenience.

4. The cabin is ROPS (Roll Over Protective Structure) certified. Always wear your seatbelt for safety when operating the tractor.

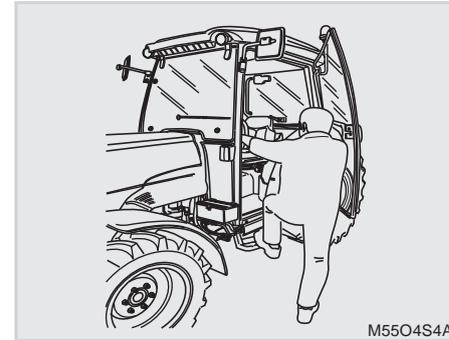
ENTRANCE



(1) Door lock

(2) Door handle

Pulling the handle can open the door. The door can be locked through the lock on the outside of the door with the ignition key.



4

Enter or leave the tractor through the left-hand door.

WARNING

- **Do not jump on or off the tractor. It may cause injuries. Always face the tractor, use the hand rails and steps, and get on or off slowly. Maintain a minimum three point contact to avoid falling (both hands on rails and one foot on the step, or one hand on the hand rail and both feet on the steps).**

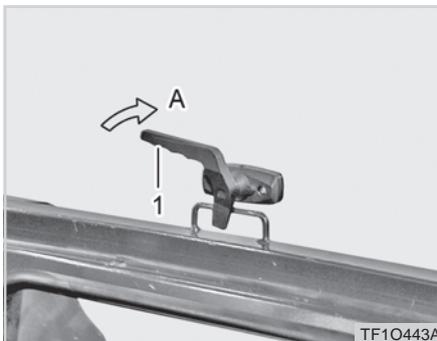
EXIT



(1) Door lever

Push the lever to open the door to exit the cabin.

REAR WINDOW



(1) Rear window handle
(A) Rotate upward to open the window

Pull the handle slightly inward and rotate the handle upward to open the rear window.

To close the window, pull the handle gently inward, rotating the handle downward to lock in the "closed" position.

⚠ WARNING

- *Operating the tractor with certain implements could prevent the window from opening. Be sure to check if there is enough space to open the window to prevent damage and breakage by an implement.*
- *Never operate the tractor with the door open as it is likely that the door may be damaged or broken due to impact with foreign objects.*

SIDE WINDOW

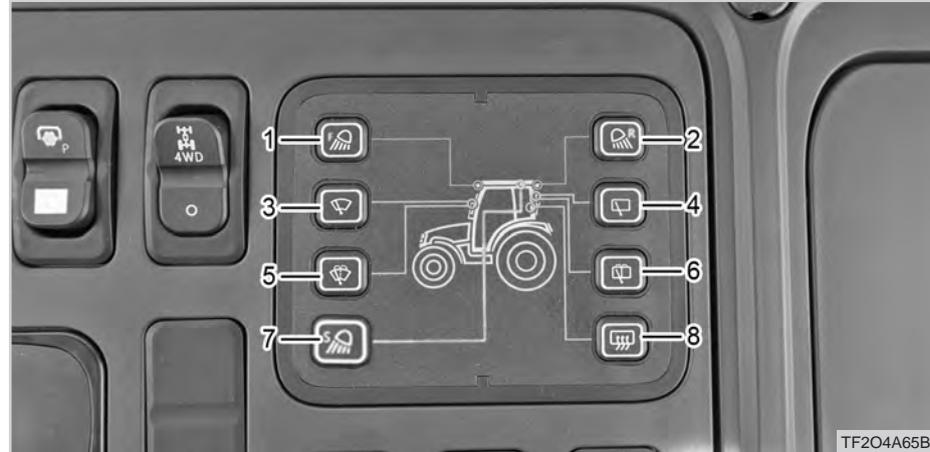


(1) Side window

Side windows can be partially open to vent the cab.

Do not leave the doors fully open while driving the tractor.

WORKING LIGHT AND WIPER



- (1) Working light switch (Front)
- (2) Working light switch (Rear) (Option)
- (3) Wiper operating switch (Front)
- (4) Wiper operating switch (Rear)

- (5) Washer switch (Front)
- (6) Washer switch (Rear) (Option)
- (7) Working light switch (Side) (Option)
- (8) Defrost button

Work lights are installed on the roof front, roof rear and on top of the combination lights as standard equipment. To turn on the work light, press the corresponding work light switch. The ignition key switch must be in the "ON" position at this time.

WORKING LIGHT



- (1) Working light switch (Front)
 (2) Working light switch (Rear)
 (3) Working light switch (Side) (Option)

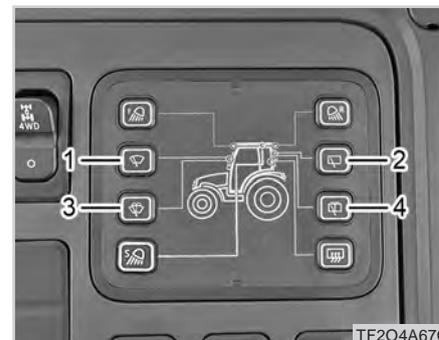
⚠ WARNING

- **Do not drive the tractor on a road with the work lights ON at night.**
- **The approaching or following vehicle's visibility can be disturbed, which is very dangerous for both drivers. In this case, use the hazard lamps.**

ESCORT FUNCTION

When stopping the engine with the work lamps illuminated after (night) work, the work lamps will remain illuminated for 30 seconds to allow the operator time to exit the cabin safely.

WIPER



- (1) Wiper operating switch (Front)
 (2) Wiper operating switch (Rear) (Option)
 (3) Washer switch (Front)
 (4) Washer switch (Rear) (Option)

1. Press the button marked (wiper) to turn on the power.
2. When the washer button is pressed while the ignition key switch is in the "ACC" or "ON" position, washer fluid is sprayed through wiper to clean the window.



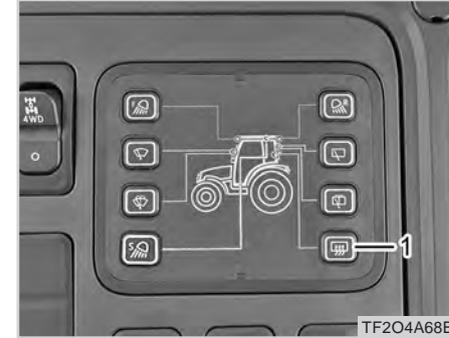
(1) Washer fluid reservoir

3. The washer fluid reservoir is installed on the rear of the tractor, adjacent to the left rear fender.

⚠ WARNING

- **Normal water can be used as the washer fluid, but it is recommended to use washer fluid made exclusively for vehicles. Especially, make sure to use seasonal washer fluid in winter to prevent freezing.**
- **The washer fluid pump can be damaged if you are trying to spray washer fluid when the tank is empty. Therefore, be sure to check the fluid level before driving.**
- **Spray enough washer fluid and operate the wiper if there is dirt on the window. Operating the wiper while the window is frozen could cause damage to the wiper or motor. In this case, operate the wiper after increasing the cabin temperature enough to defrost the wiper.**

DEFROST BUTTON



(1) Defrost button

The tractor is equipped with a rear window defroster to quickly clear humidity, ice, etc from the rear glass for visibility.

Depress the defrost button to turn the rear window defroster on. When on, the button should illuminate.

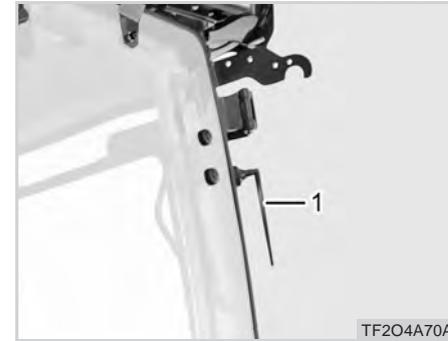
Depress the defrost button again to turn the rear window defroster off. When off, the button is not illuminated.

 **NOTE**

- Once the rear glass defogger is activated, it is automatically deactivated after 15 minutes of operation.
- If the defroster needs to be activated further for clearer rear view, press the switch again.

 **CAUTION**

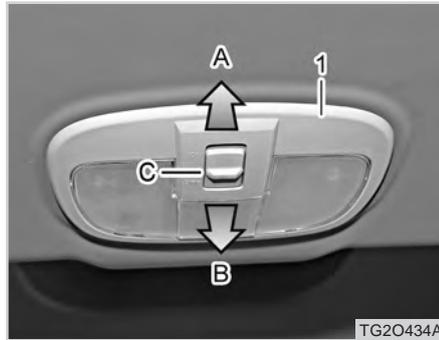
- **Avoid using any sharp tools or abrasive cleaner on the rear glass.**
- **When cleaning or working on the rear glass, be careful not to scratch or damage the heating wires on the glass.**
- **Activating the defroster with the engine stopped can discharge the battery. Make sure to start and run the engine before activating the defroster.**
- **Deactivate after the rear window has been cleared. If the defroster is operated for an extended period of time, the electrical system or defroster could be damaged.**

**ANTENNA
RADIO ANTENNA**

(1) Antenna

In case of poor reception, verify the antenna is angled away from the cab for maximum efficiency.

ROOM LAMP



TG2O434A

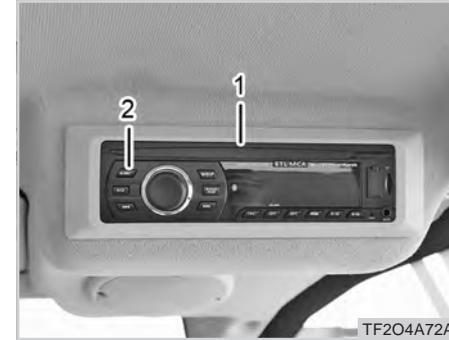
- (1) Room lamp
 (A) ON (B) OFF
 (C) DOOR ON (is in the middle position)

Push the interior lamp lever to the ON position to turn on the interior lamp. When opening the left-hand door with the interior lighting lever in the middle position, the interior lamp will illuminate when the door is open and turn off when the door is closed.

⚠ CAUTION

- The room lamp can be operated without the key inserted. However, turning it on for an extended period of time can discharge the battery.

RADIO & USB PLAYER (IF EQUIPPED)



TF2O4A72A

- (1) Bluetooth player / Radio
 (2) Power (PWR) switch

This machine may be equipped with a Bluetooth player which has an audio/ radio function and wireless LAN communication. Using the Bluetooth function, it is possible to pair and use it with other Bluetooth enabled devices. For detailed information, refer to the stereo system's user manual.

CAUTION

- Working with the volume of the stereo system excessively high can affect the driver's concentration, leading to possible safety accidents.

ACCESSORY INSIDE REAR VIEW MIRROR



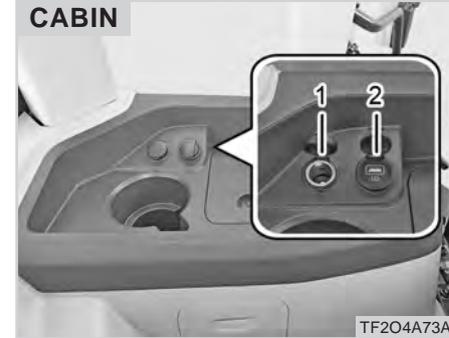
TF204A71A

(1) Inside rearview mirror

The cabin is equipped with the inside rearview mirror for the driver's convenience.

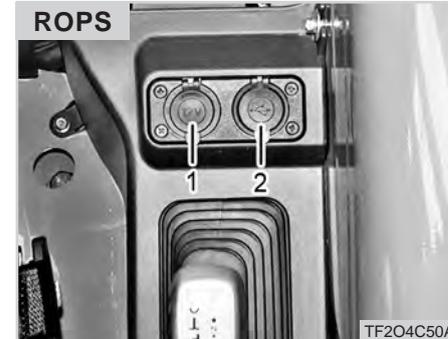
Adjust the angle of the mirror before driving to secure for a clear rear view.

POWER SOCKET & USB CHARGING PORT CABIN



TF204A73A

ROPS



TF204C50A

- (1) Power socket (12V, 120W)
(2) USB charge (5V, 3.1A)

The power socket (1) can be used as a power supply for an external device. It can be used while the ignition switch is in the ON position or the engine is running.

An external device with a USB port can be charged using the USB charging port (2), which is located on the left side of the driver's seat.

NOTE

- Be sure to close the cap after use, and do not use when it is raining. Otherwise, it may cause electrical failure.

CUP HOLDER AND STORAGE



(1) Cup Holder & Storage

There are storage areas and cup holders on the left side of the operator's seat.

SUN VISOR



(1) Sun visor

Pull it down to block the sunlight from the front. Keep it folded unless necessary.



SUNROOF



(1) Sunroof lever

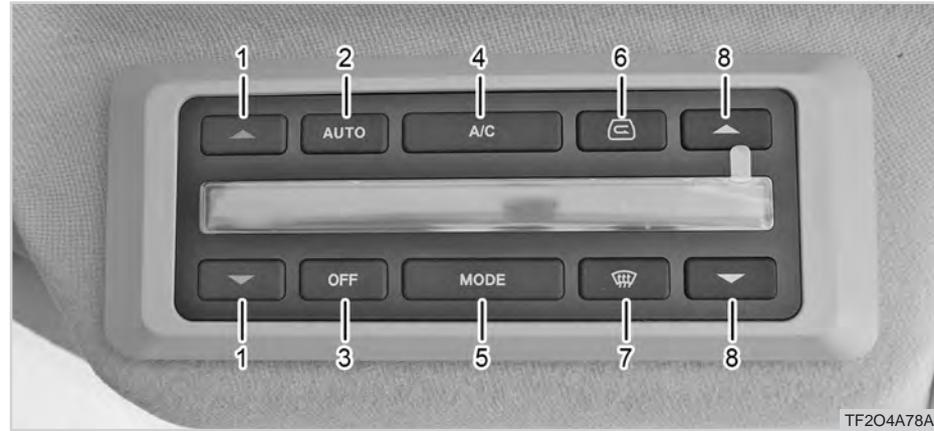
(2) Sunroof

When you open the sunroof, you can see the sky through the glass.

When you open and close it, do not apply excessive force on it.

Opening the sunroof provides better visibility when the front loader is at the top, allowing smooth loader operation.

HEATER AND AIR CONDITIONER



(1) Temperature control button

(2) AUTO button

(3) OFF button

(4) Air conditioner button

(5) MODE button

(6) Air recirculation button

(7) Defrost button

(8) Fan speed control button

The fan will operate when the key is in the ACC or ON positions. The AC will only operate when the engine is running.

⚠ WARNING

- *Do not leave passengers or pets unattended in the cabin. Their health could be threatened as internal temperatures rise quickly in hot weather or on sunny days.*
- *Use the fresh air mode in normal conditions and use the air recirculation mode when rapid or maximum cooling is required. Continued operation in when rapid or maximum cooling is required. The air recirculation mode can cause the inside to become stuffy, causing headaches, drowsiness, or frost on the windows. Do not operate in the recirculation mode for an extended period of time.*

AIR CONDITIONER BUTTON



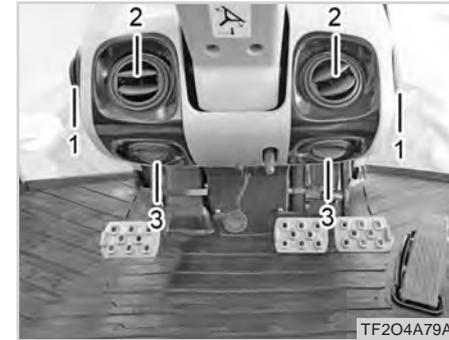
TF2O4A83A

(1) Air conditioner button

Press it to activate the air conditioner and press it again to deactivate the air conditioner.

The heater can be operated by the temperature control buttons and fan speed control buttons.

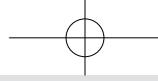
AIR VENT



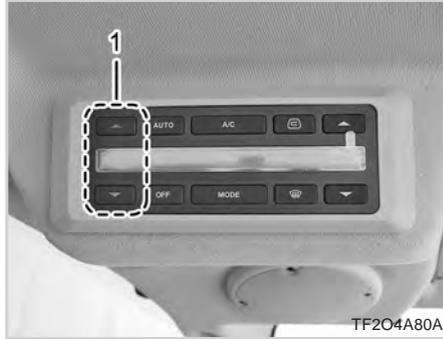
TF2O4A79A

(1) Air vent (LH/RH) (2) Air vent (Front)
(3) Air vent (Lower)

The driver can adjust the wind direction as desired by adjusting the air vent angle.



TEMPERATURE CONTROL BUTTON



TF2O4A80A

(1) Temperature control button

Warm air flows out when pressing the red button (▲). Cool air flows out when pressing the blue button (▼). The temperature control dial only controls the amount of air flowing through the heater and air conditioner.

AUTO



TF2O4A81A

(1) AUTO button

When you press the AUTO button on the air conditioning/heating device, the wind temperature and wind speed are automatically adjusted according to the driver's settings.

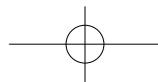
OFF



TF2O4A82A

(1) OFF button

The A/C and heating system is turned off.



VENT MODE CONTROL



TF2O4A84A

(1) Vent mode control button

AIR RECIRCULATION MODE AND FRESH AIR MODE



TF2O4A85A

(1) Air Recirculation Button

- : When pressing mode button to the () position, air comes out from the 4 vents on front of operator.
- : When pressing the mode button to the Bi-level () position, air comes out from 4 vents in the front and 2 vents on the near bottom of front glass

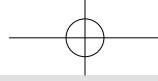
While the A/C is running, the air recirculation mode or fresh air mode can be selected as desired.

Even if the air recirculation mode is selected, introduction of external air cannot be completely prevented.

If the fresh air mode is selected, 100% external air is introduced to the cabin.

WARNING

- *The cabin in this machine is not designed, engineered or certified with filtration for operations requiring a spray certified cabin or operation in conditions where exposure to unfiltered chemicals or pollutants could cause injury or harm to operators.*



DEFROST BUTTON



TF2O4A86A

(1) Defrost Button

-  : When pushing the Defrost () position, air comes out from 4 vents in the front windshield to help defrost the window for visibility.

FAN SPEED CONTROL BUTTON



TF2O4A87A

(1) Fan Speed Control Button

The fan speed of the heater and A/C can be adjusted.

Pressing the upper button (▲) increases the fan speed while pressing the lower button (▼) decreases the fan speed.

CAUTION

- After parking the tractor under direct sunlight for an extended period of time, open all the windows to remove hot air in the cabin and operate the A/C.
- Keep the windows closed while the A/C is in operation for effective cooling.
- Turn off the air conditioner for better engine power when the work load rapidly increases.
- When the tractor is stationary and being used in high load work, reduce the A/C operation period as the engine may be overheated.
- If cold air does not come out from the vents after several hours of operations, turn the fan and A/C off and rotate the temperature dial to "hot" and allow the system to thaw out for 5 to 10 minutes before turning the A/C on again.


CAUTION

- **Be sure you operate the air conditioner once or twice a month in winter season to lubricate the A/C compressor and other A/C components.**

A/C REFRIGERANT AMOUNT INSPECTION

Insufficient refrigerant can lead to poor performance of the air conditioner. Also, excessive refrigerant can affect the A/C components. If any malfunction is found, have the system checked by local Authorized KIOTI Dealership.

A/C REFRIGERANT CAPACITY

Item	New Refrigerant	Compressor Oil
Type	R-134a	PAG oil
Charging amount	0.45 kg	120 cc

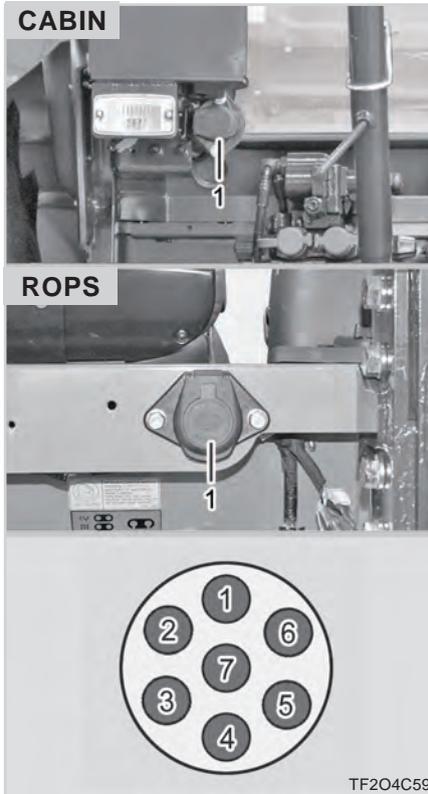

WARNING

- ***As the A/C refrigerant is under high pressure, have the A/C serviced only by a qualified service personnel. Otherwise, injuries can occur.***
- ***If you sleep with the air conditioner or heater in operation, you may be suffocated to death.***
- ***If keeping the A/C on for an extended period of time, inside air can become impure. Therefore, draw outside air and ventilate the cabin regularly.***

⚠ CAUTION

- Keep the windows closed while the A/C is in operation for effective operation.
- Turn off the air conditioner for better engine power when the work load rapidly increases.
- When the tractor is stationary and being used in high load work, reduce the A/C operation period as the engine may be overheated.
- Make sure you operate the air conditioner once or twice a month in winter season to prevent refrigerant leakage and facilitate the compressor lubrication for durability of the A/C components.
- If the tractor has been parked under strong sunlight for a long period of time, open the windows to ventilate the cabin before operating the A/C.

7-PIN POWER OUTPUT SOCKET



(1) Power Connector

The 7-pin socket is installed on the rear of the tractor.

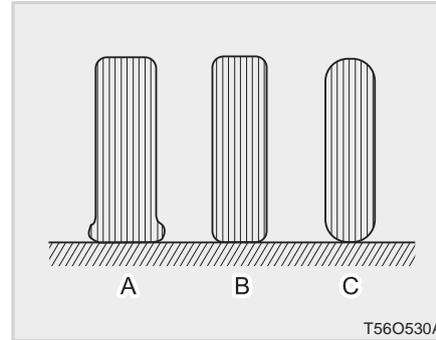
This supplies power to the brake lamps, turn signal lamps, and marker lamps on an implement or trailer.

No	Circuit	Color of wire
1	Ground	W
2	Spare	B
3	Left turn signal	Y
4	Stop lamp	R
5	Right turn signal	G
6	Tail lamp	Br
7	Spare	L

TIRES, WHEELS AND BALLAST

⚠ WARNING

- *When driving on a road with an implement which has exterior lamps, such as a trailer, make sure to turn on those lamps by connecting them to the 7-pin socket in order to prevent an accident.*
- *Be sure to confirm the proper operation of the implement lamps after connecting to the 7-pin socket. Consult your Local Authorized KIO-TI Dealer for assistance if required.*



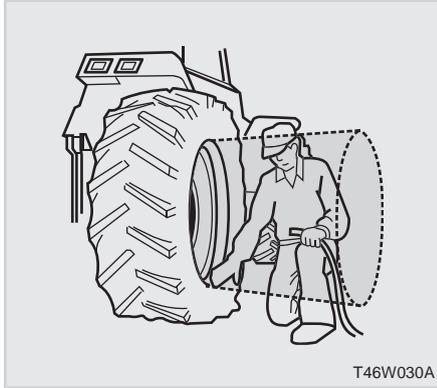
(A) Insufficient
(C) Excessive

(B) Standard

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

⚠ WARNING

- *Do not use tires larger or smaller than specified as this impacts the performance, driving characteristics and could damage the tractor driveline.*
- *Do not disassemble or assemble a tire. If it is necessary to disassemble/assemble the tire, let a qualified service person perform the work.*



T46W030A

⚠ WARNING

- **The tire rims can fall out of the tires. Causing the tire bead edge to blow out. Therefore, stay out of their way when checking or inflating tires.**

INFLATION PRESSURE

Always maintain the proper tire inflation pressure. Make sure the tire pressure does not exceed the pressure recommended in the manual.

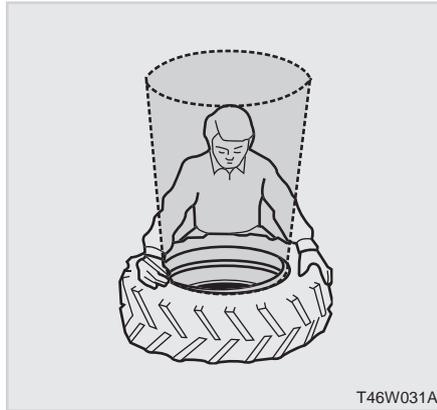
Class	AG Tire Sizes	Inflation Pressure
Front	11.2-20	34.1 psi (2.4 kgf/cm ²)
Rear	14.9-30	25.6 psi (1.8 kgf/cm ²)
Front	11.2-24	34.1 psi (2.4 kgf/cm ²)
Rear	16.9-30	22.8 psi (1.6 kgf/cm ²)

*AG : Agricultural Tire

📖 NOTE

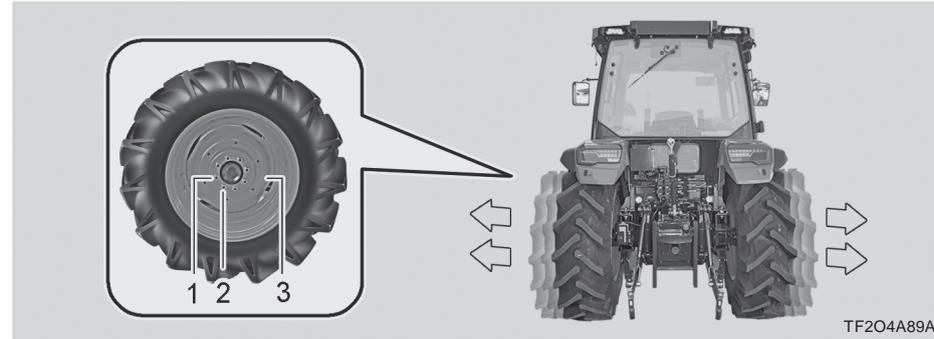
- Keep the front tire pressure to maximum when using a front end loader or front suitcase weights.
- If tires with a different size from the ones already in use are installed, contact the Local Authorized **KIOTI** Dealer for the front/rear wheel speed ratio. Improper wheel speed ratio can result in excessive tire wear, erratic driving characteristics or catastrophic driveline damage.

TREAD



⚠ WARNING

- **Do not weld or apply heat to the tire rim or disc. The tire can explode due to the rapidly increased pressure in the tire.**
- **Check tires for inflation pressure, damage, deformation, and excessive wear. Inspect rims and discs for damage, loose or missing hardware daily.**



(1) Disc

(2) Rim Bolt

(3) Rim

The rear axle tread width is adjustable by changing the installation of the tire (Together with rim) to the disk, to suit the type or condition of work.

⚠ WARNING

- **The front wheel tread width on tractors equipped with front loader must not exceed 61 in. (1.55 m).**

⚠ WARNING

- **Never operate tractor with a loose rim, wheel, or axle.**
- **Always tighten nuts or bolts to the specified torque.**
- **Be sure to perform inspections daily.**



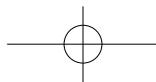
TIRE TREAD SETTING

in. (mm)

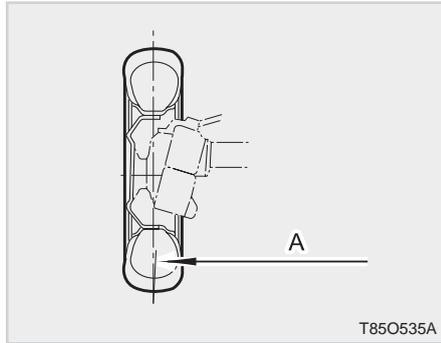
	STANDARD	ADJUSTMENT RANGE			
Front (11.2-20)	 59.1(1,501)	 62.8(1,595)	 57.8(1,467)	 64.1(1,629)	 68.4(1,737)
Front (11.2-24)	 59.0(1,500)	 62.6(1,590)	 63.2(1,606)	 66.9(1,700)	
Rear (14.9-30)	 58.2(1,479) 73.3(1,863)	 57.0(1,449) 72.2(1,833)	 55.8(1,417) 70.9(1,800)	 62.6(1,591) 77.8(1,975)	 63.9(1,623) 79.0(2,007)
Rear (16.9-30)	 59.6(1,514) 77.1(1,959)		 63.3(1,608) 80.8(2,053)	 66.5(1,690) 84.1(2,135)	 70.2(1,784) 87.8(2,229)

※ This is measured when the Agricultural tires are applied

TF204A91B



WHEEL TORQUE AND DIRECTION FRONT WHEEL INSTALLATION PATTERN



(A) Tread

Front tread width should not exceed 69.5 inches when outfitted with a loader or front weights. Consult with your Local Authorized **KIOTI** Dealer should your specific application require front tread adjustment.

The owner is responsible for repairs resulting from any damage caused by improper modification or unapproved tread settings which are not covered by warranty.

Tightening torque of wheel bolt (nut)

274.6 ~ 318.7 N·m
(28 ~ 32.5 kgf·m)

⚠ WARNING

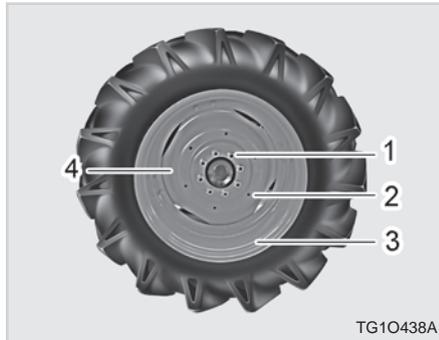
- ***Use tires approved by KIOTI only.***
- ***Assemble the tires as shown in the chart on page 4-88.***
- ***Contact your local KIOTI Dealer if it is necessary to change the tire specification or installation method.***

WHEEL INSTALLATION DIRECTION

For agricultural tires, make sure to install them with their arrow marks on their side pointing in the forward driving direction.

The tire is correctly installed if the tread mark "V" on the ground is shown correctly.

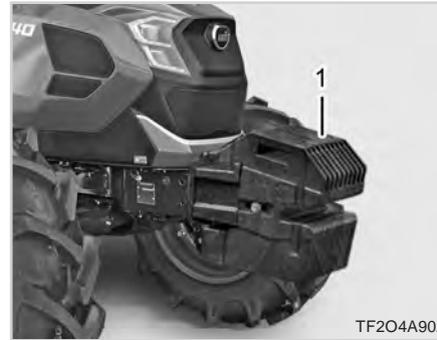
REAR WHEEL INSTALLATION PATTERN



- (1) Wheel Nut
(2) Rim Bolt
(3) Rim
(4) Disc

The rear axle tread width are adjustable by changing the installation of the tire (together with rim) to the disk, to suit the type or condition of work.

ADDITIONAL WEIGHT(IF EQUIPPED) ADDITIONAL FRONT WEIGHT



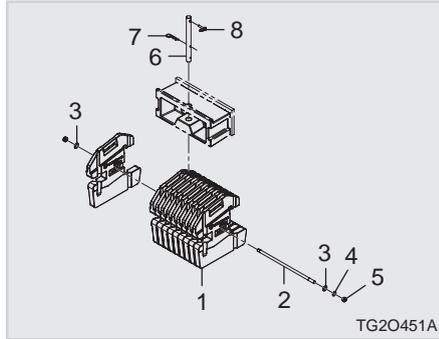
- (1) Additional Front Weight

If the loader is not installed, attach a weight kit to the front of the tractor for additional ballast when using three-point implements or heavy draw-bar loads.

If a heavy implement is installed to the three-point or the drawbar the front wheels may be lifted. Add sufficient weight to keep steerability and to prevent rollover.

When the front tires are excessively loaded, it may become difficult to steer the tractor under certain conditions. The front tires may be worn faster, especially if not inflated to the manufacturer's recommended inflation pressure.

COMPONENTS FOR ADDITIONAL FRONT WEIGHT



- (1) Weight (2) Bolt
 (3) Plain Washer (4) Spring Washer
 (5) Nut (6) Weight Lock Pin
 (7) Clip Pin (8) Lift Rod Lock Pin

When installing or removing a weight, always check the tire inflation pressure and adjust it as necessary.

Front weights are available through your Local Authorized **KIOTI** Dealer.

Model	Max. load
ALL	772 lbs (350 kg) (35 kg x 10 Pieces)

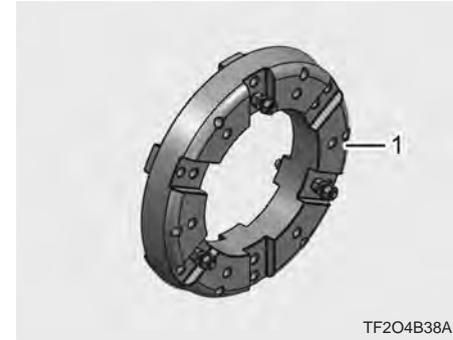
⚠ CAUTION

- Additional weight might be needed for transporting heavy implements.
- Reduce speed regardless of additional weight when driving on a bumpy or rough road with an implement raised on the three-point hitch or attached to the drawbar to reduce the risk for loss of control or an accident.

⊕ IMPORTANT

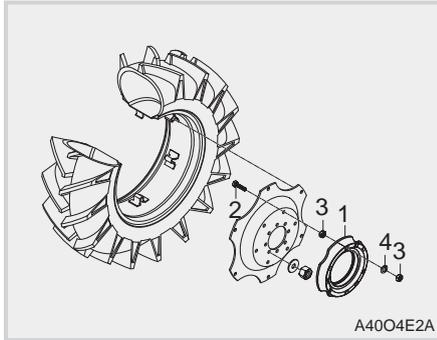
- Attach sufficient weight for stability without adding excessive ballast leading to premature tire and component wear.

ADDITIONAL REAR WEIGHT(IF EQUIPPED)



(1) Rear Weight

Rear weights are used to maximize the traction of the tractor by increasing the grip of the rear wheels when using a heavy tillage implement or plow.



- (1) Rear Weight (2) Bolt
(3) Nut (4) Spring Washer

For detailed information on weight installation, contact your Local Authorized **KIOTI** Dealer.

Max. load

220 lbs (100 kg) (50 kgx2 Pieces)

⊕ IMPORTANT

- **Do not exceed the maximum recommended weight allowance.**

⊕ IMPORTANT

- **Adding weight unnecessarily can lead to an increased wear of drivetrain components over an extended period of time along with increased fuel consumption.**

LIQUID BALLAST

Adding liquid ballast in the form of water + calcium or other forms of approved liquid ballast is possible.

📖 NOTE

- Liquid injection should be performed by qualified service personnel only.
- For assistance, please contact your Local Authorized **KIOTI** Dealer.

If one liter of water is mixed with 0.4 kg of calcium, this liquid does not freeze down at -45 °C (-49 °F).

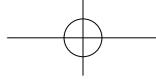
For a tire without a tube, fill it with a water and calcium solution at least to the valve stem level (75%).

If the tire without a tube is not filled with water and calcium solution sufficiently, a part of the rim is exposed, which could lead to corrosion of the rim.

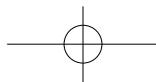
For a tire with a tube, fill it up to 90% of its level.

 **NOTE**

- Liquid injection should be performed by qualified service personnel only.
- For assistance, please contact your Local Authorized **KIOTI** Dealer.



MEMO





OPERATION

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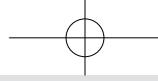
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5



PRE-OPERATION CHECKS

It is good practice to know the condition of your tractor before you start it. You should perform routine checks before each use.

CAUTION

- **Park the tractor on level ground, place the transmission in neutral, apply the parking brake, lower any implements or attachments to the ground, turn the engine off and remove the key before making any inspections or repairs of the tractor and equipment.**

Refer to the "DAILY CHECK LIST" in section 8 "MAINTENANCE", for the daily pre-operation checks that should be performed before use.

- **Be sure to read and understand all safety related messages titled "DANGER", "WARNING", and "CAUTION" thoroughly for safe operation.**

DAILY CHECKLIST

- Walk around inspection.
- Engine oil level.
- DEF (Urea) level(IF EQUIPPED)
- Transmission oil level.
- Coolant level.
- Clean the front grill and radiator screen.
- Air cleaner element.
- Brake pedal free play.
- All dash gauges and indicators.
- Head lights, tail lights, and working lights.
- Accessible wiring harness for any damage.
- Seat belt and **ROPS** for damage.
- All "DANGER" and "WARNING" decals.
- Fuel level.
- Tire pressure and wheel bolt tightening condition.
- 3-point hitch and secure pins.

For detailed information, refer to "Maintenance schedule chart" in chapter 8.

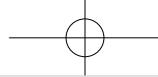
INITIAL OPERATION

Driving a new tractor at a high speed or under heavy load can affect its durability.

Make sure to run the tractor at the proper work load and speed for the initial operation of 10 to 20 hours.

TIPS FOR BREAKING-IN

1. Start the engine and idle the engine at a low speed for 3 to 4 minutes before starting work.
2. Increase the idling time in cold weather.
3. Do not drive the tractor maximum speed (full throttle) on the road.
4. Work the machine at 50%-75% load rating. It is not recommended to operate or work at 100% load rating for the first 20 hours.
5. Idle the engine at a low speed for 2 to 3 minutes before stopping it.



OPERATING THE ENGINE STARTING THE ENGINE

ENGINE STOP FUNCTION WHEN LEAVING THE DRIVER'S SEAT

• Condition:

If the driver leaves the seat for more than 2 seconds, engine will automatically shut off.

• For continued engine operation when the operator leaves the seat:

- 1) The shuttle must be in the "N" neutral position
- 2) The parking brakes must be on

When these two conditions are met, the engine will continue to run if the operator leaves the seat for more than 2 seconds.

⚠ WARNING

To avoid accidents :

- *Be sure to read and understand the warning and caution decals on the tractor thoroughly.*
- *Run the engine only in a well-ventilated area, or you may be exposed to Carbon Monoxide.*
- *Never start the engine unless you are in the driver's seat. The tractor may start suddenly, resulting in an injury or accident.*

⊕ IMPORTANT

- **Use of a starting aid can cause serious damage to the engine and will not be covered under warranty**
- **Never try to start the engine for more than 10 seconds at a time. Continued operation of the starter could lead to starter motor or battery damage.**

CABIN

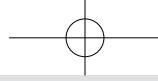


ROPS



(1) Seat adjustment lever

1. Adjust the seat to the desired position and fasten the seat belt before starting the tractor.



⚠ WARNING

- *After adjusting the seat, push forward/backward several times to ensure the seat is securely latched and does not move freely.*
- *Do not adjust the seat while driving. The seat may move suddenly causing the operator to lose control of the tractor, possibly resulting in operator injury.*

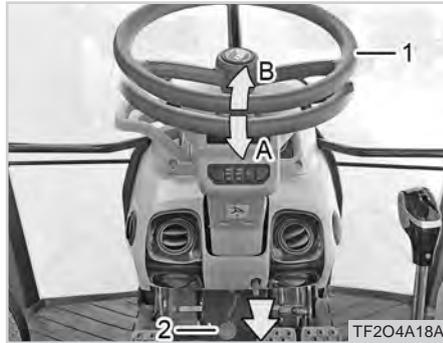


(1) Seat belt

2. Always fasten your seat belt before starting the tractor or performing any work.

⚠ WARNING

- *Always wear the seat belt when the tractor is outfitted with a cab or a ROPS in the locked and upright position.*
- *Seat belt should be worn across the hips. When worn incorrectly across the abdomen or waist, injury may result.*
- *Do not wear the seat belt if the cab/ROPS has been removed or if the ROPS is in the down or folded position.*

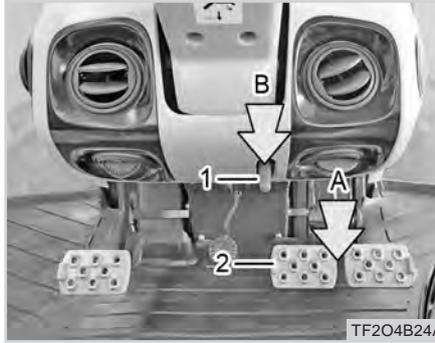


- (1) Steering wheel
 (2) Steering wheel tilt pedal
 (A) Lowering (B) Lifting

3. Adjust the steering wheel to the preferred position before starting the tractor.

! WARNING

- **Do not adjust the tilt angle of steering wheel while driving. The operator could lose grip on the steering wheel leading to an accident.**



- (1) Parking Brake Lever (2) Brake Pedal
 (A) Depressing (B) Pressing Down

4. Make sure there is no obstacle around the tractor.
 5. Make sure the parking brake is set.

To set the parking brake;

- 1) Interlock the brake pedals
- 2) Depress the brake pedals
- 3) Latch the brake pedals with the parking brake lever. (Check that the parking brake lamp on the gauge board illuminates)

+ IMPORTANT

- **Make sure that the brake pedals are fully depressed before pulling the parking brake lever up.**

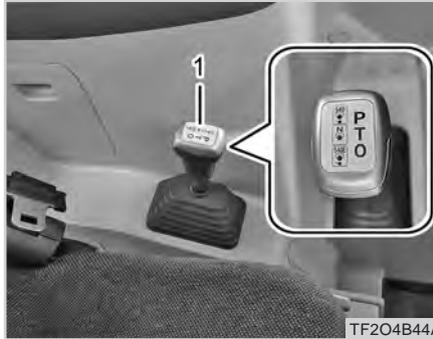
NOTE

- When the parking brake is engaged, the parking brake lamp on the instrument cluster illuminates. When released, the parking brake lamp is turned off.



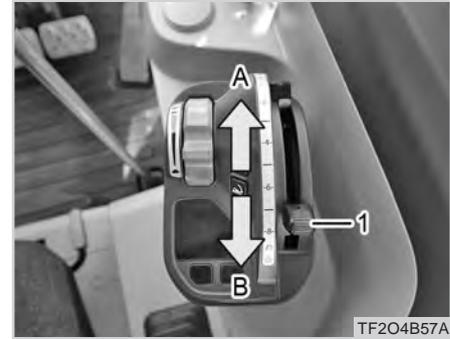
(1) PTO Auto/Manual switch
(2) PTO main switch
(A) AUTO (B) MANUAL

6. Press the PTO switch to the "OFF" position.
7. Make sure the main shift, range and the shuttle levers are all in neutral.



(1) PTO change lever

8. Place the PTO change lever in the neutral position (N).



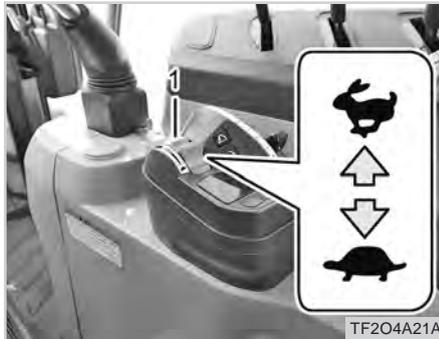
(1) Position Control Lever
(A) Lowering (B) Lifting

9. Lower the attachment by pushing the position control lever toward.

⊕ IMPORTANT

- **Make sure that no one is around the implement or behind the tractor.**

10. Press the brake pedal and release the parking brake.



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(1) Hand throttle lever (2) Clutch pedal

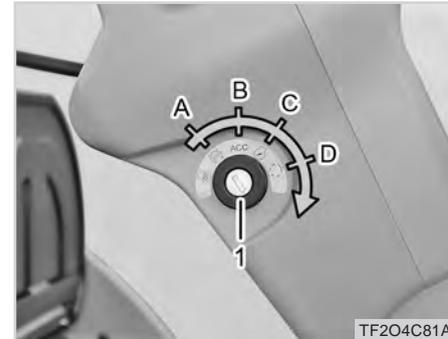
: "Slow"

: "Fast"

11. Set the hand throttle lever into "slow" position.
12. Depress the clutch pedal (If equipped).

⊕ IMPORTANT

- For the manual model, it cannot be started while the shuttle lever or PTO is engaged.



TF204C81A

(1) Key Switch

(A) Stop

(C) ON

(B) ACC

(D) Start

13. Insert the key into the key switch and turn it "ON". Wait until the glow plug indicator goes out. When the glow plug indicator goes out, rotate the key to the "START" position and hold till the engine starts.

📖 NOTE

If the engine doesn't start within 10 seconds, release the key, wait 30 seconds and repeat step 13 again.

NOTE**OPERATING PRINCIPLE OF THE PREHEATING SYSTEM**

- When the ignition switch is set in the "ON" position, the engine is automatically preheated. As soon as the preheat indicator goes off, start the engine.
- After starting the engine, in the "ON" position, post-heating is variable depending on the coolant temperature.

WARNING

- **Never operate the start motor for 10 consecutive seconds as it consumes a lot of battery power. If the engine cannot be started within 10 seconds, wait for 30 seconds and try again.**
- **Never try to start the engine while the flywheel is turning.**

14. When the engine starts, release the key. The key is automatically turned back to the "ON" position.

WARNING

- **Do not turn the key switch to the "Start" position while the engine is running.**

15. Warm up the engine for 3 to 4 minutes (10 minutes in winter) after release the clutch pedal before use.



- (1) Instrument panel
 (2) Engine oil pressure warning lamp
 (3) Charge warning lamp

16. Check to see that all the warning lamps on the instrument cluster turn "OFF". If any lamp remains on, immediately stop the engine and determine the cause.



CHECKING WARNING LAMPS

1. If the oil pressure warning lamp(2) does not go off in 4 to 5 seconds after the engine is properly started, stop the engine immediately and check the engine oil level. If the engine oil level is proper, contact your Local Authorized **KIOTI** Dealer for assistance.

WARNING

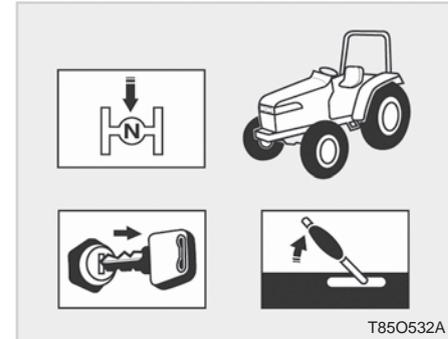
- *The engine can be severely damaged if it is run with the oil pressure warning lamp ON.*

2. If the charge warning lamp(3) does not go off in 4 to 5 seconds after the engine is properly started, it means that the battery is not being charged. Have the charging system, such as the battery and alternator, checked.
3. Refer to "Instrument panel" in chapter 4 for detailed information about other indicators and lamps.

WARNING

- *If driving the tractor for an extended period of time with the charge warning lamp ON, the battery may be discharged and the tractor's electrical system may be damaged.*

STOPPING THE ENGINE



1. Make sure to reduce the engine RPM to an idle before stopping the engine.
2. Depress the clutch pedal and put all shift levers in the neutral position, make sure the PTO is OFF, engage the parking brake and lower any implements or attachments to the ground.
3. Run the engine at the idle speed for approx. 2 to 3 minutes, and then turn the key switch to the "OFF" position to stop the engine.

 **WARNING**

- ***Never touch the muffler or heat shielding until they have had several hours to cool after running the engine or driving the tractor.***

 **IMPORTANT**

- **Turn off all the electrical devices and remove the ignition key before leaving the tractor.**
- **KIOTI tractors utilize a universal key. Recommend implementation of appropriate theft prevention practices.**
- **The horn, turn signal lamp and hazard lamp can be operated without the key inserted. Therefore, using these components without the engine started can discharge the battery.**

 **NOTE**

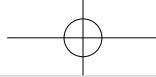
- When switching the ignition "OFF", please allow 1 minute for proper electronic shutdown prior to disconnecting battery or utilizing the battery cut-off switch.

WARMING UP

It is recommended always to warm up the engine before operating in order to maintain the durability of the engine. Before starting the engine, ensure daily checks have been performed, including fluid level and leak checks. This ensures proper lubrication and cooling of the engine and hydraulic system is maintained. Failure to inspect may result in damage to either system.

 **NOTE**

- In case of abrupt acceleration with cold engine, the engine speed is automatically limited according to the oil pressure and temperature in order to protect the turbocharger from damage.
- Warm up the engine for 3 to 4 minutes at the low idle speed to recommend warming engine for 3~4 minutes at idle prior to usage of the engine.



HOW TO WARM THE ENGINE

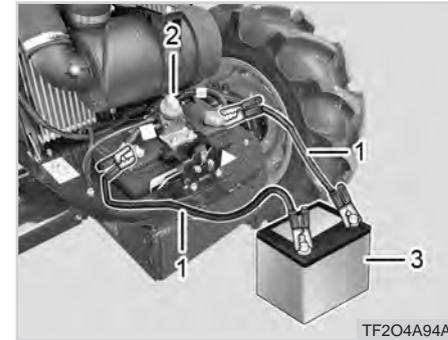
1. Start the engine and run it at an idle and without load for approx. 3 to 4 minutes.
2. In cold weather (below 0 °C), increase the warming up time to 10 minutes.
3. If it is very cold (below -10 °C), warm up the engine for approx. 15 minutes.
4. After 5 minutes, the throttle can be increased to 1,400 RPM's to increase the rate at which the engine coolant temperature is warmed.
5. The engine has been sufficiently warmed to begin light work when the temperature gauge on the instrument panel has a minimum of 2 bars illuminated.
6. To prevent engine damage in cold weather, do not engage in heavy work until the engine has reached its normal operating range (minimum of 3 bars illuminated on the instrument panel).

7. Run the engine at idle for approx. 2 to 3 minutes before stopping the engine after work.

WARNING

- *Warming up the engine excessively increases fuel consumption.*
- *To prevent accidents or damage to the tractor or property, never leave the tractor unattended while warming up or when in operation.*

JUMP STARTING



(1) Jumper cables
(3) Helper battery

(2) Tractor battery

5

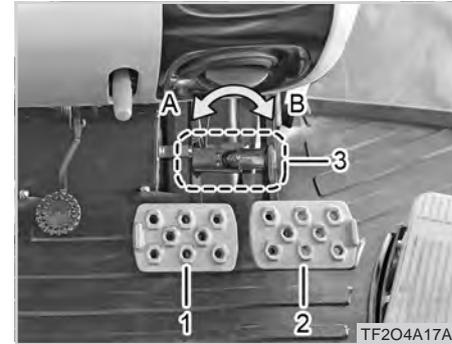
If the battery is discharged and the engine cannot be started, it is possible to start the engine by connecting the discharged battery to a battery from another tractor or other extra battery.

1. Check that the voltage of the discharged battery is same as the voltage of the other tractor or vehicle for jump start. (Specification for this tractor: 12V)

2. Check the length of the jump cable and position another tractor near the tractor with the discharged battery. Then, put all the shift levers in the neutral position, apply the parking brake, and stop the engine.
3. Wearing proper PPE (Personal Protective Equipment) including gloves and goggles or safety glasses, access the battery of each tractor.
4. Connect the alligator clips on both ends of the red positive cable to the positive terminals of both batteries.
5. Connect one clip of the black negative cable to the negative terminal of the normal battery and the other clip to the negative terminal of the discharged battery or to the frame of the tractor with the discharged battery.
6. Start the engine of the tractor with the normal battery and increase the engine RPM's to a high idle.
7. Start the engine of the tractor with the discharged battery.

8. Disconnect the black cable from the negative battery terminals of both of the tractors.
9. Disconnect the red cable from the positive terminal of both batteries.
10. Run the engine for at least 30 minutes to charge the discharged battery.
11. If the battery is discharged again, replace it or check the charging system, such as the alternator.

OPERATING THE TRACTOR ADJUSTING CONTROLS



(1) Brake pedal (LH) (2) Brake pedal (RH)
 (3) Pedal interlock
 (A) Unlock (B) Lock

1. Keep the brake pedals interlocked together as much as possible, especially while traveling on the road.

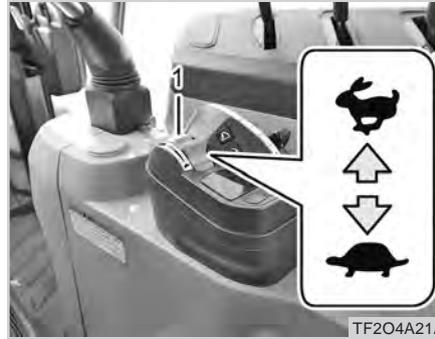
! WARNING

- ***If depressing only one brake pedal at a high speed, the tractor can change directions suddenly causing a loss of control leading to an accident or rollover.***



(1) Position control lever
(2) One-touch switch(lift/lower)

2. Pull the position control lever backward to raise the attachment on the 3-point hitch or push it forward to lower the attachment.
3. When used in conjunction with the upper limit position dial, the one-touch switch can be used to raise & lower the attachment and return it to the desired upper or lower limit with the push of a button.

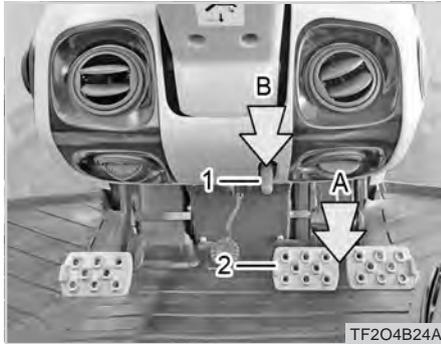


(1) Hand throttle lever
 Slow  Fast

4. Engine RPM's can be changed incrementally by two methods.
 - Depressing the foot accelerator pedal increases engine RPM's, releasing the pedal decreases engine RPM's.
 - Sliding the hand throttle lever forward increases the engine RPM's, sliding the lever rearward decreases the engine RPM's.

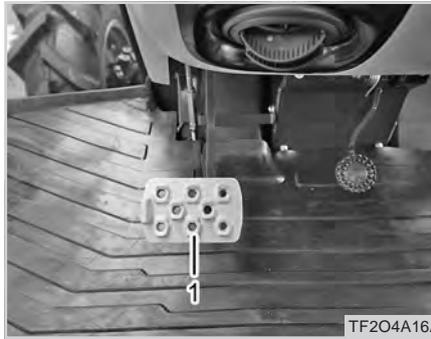


(1) Foot pedal



(1) Parking brake lever (2) Brake pedals
(A) Depressing (B) Pressing down

5. If you press hard on the locked brake pedal, the parking brake will be released.



(1) Clutch Pedal

6. Depress the clutch pedal to change gears/ranges. Release the pedal slowly to engage the transmission to start movement.

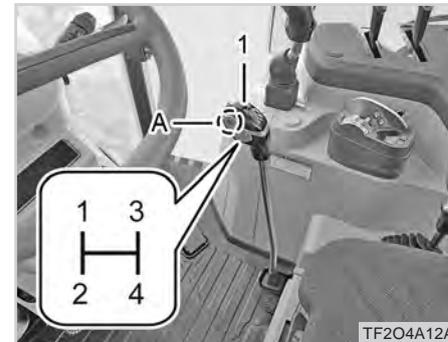
CAUTION

To avoid accidents :

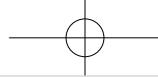
- Do not release the clutch pedal abruptly. The tractor may start off abruptly, dangerous movement.



(1) Shuttle shift lever
(F) Forward (R) Reverse
(N) Neutral



(1) Main Shift Lever
(A) Hand Clutch



(1) Range gear shift lever

7. Select the desired travel/work speeds and direction of travel through the positions of the main shift lever, the range shift lever and the shuttle lever.
8. Gently release the clutch pedal to engage the clutch.

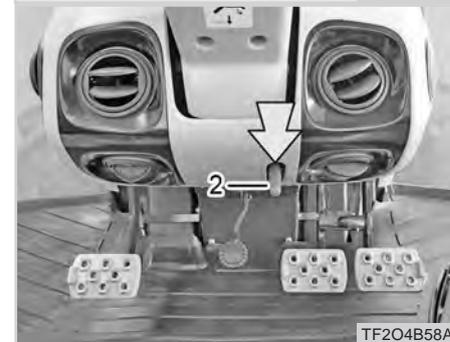
⚠ CAUTION

- **NEVER** rest your foot on the clutch pedal while driving. The clutch may slip causing premature wear to the clutch discs.
- Be sure to depress the clutch pedal quickly when stopping and release it slowly when starting off.
- Do not change the tractor speed abruptly for safe driving.
- When driving on slopes, hills or loading/unloading the tractor, be sure to select a slow and safe working speed. **DO NOT** try to shift while going up/down slopes or when loading/unloading. Loss of control or machine run away could occur due to sudden speed increase due to a missed shift or accidental disengagement of the transmission.

PARKING



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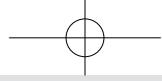


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(1) Chocks

(2) Parking Brake lever

1. This tractor is equipped with the parking brake lever.



2. Push the parking brake lever (2) to engage the parking brake.
3. Before leaving the tractor after parking be sure to engage the parking brake, lower any implement or attachment to the ground, place the transmission in neutral, turn the engine off and remove the key from the ignition before exiting the tractor.
4. If it is necessary to leave the tractor with the engine running, put all the shift levers in the neutral position, lower any implement or attachment to the ground, lower the engine RPM's to an idle and firmly apply the parking brake.
5. When parking the tractor on a slope, it is recommended to insert wheel chocks at a minimum of two wheels in addition to the application of the parking brake.
6. In order to release the parking brake, typically depress the brake pedal, then disengage the park brake handle and release brake pedal.

⚠ WARNING

- *The brake pad can be rapidly worn if you drive with the parking brake applied.*
- *Never park the tractor on a steep slope under any circumstances.*

⚠ WARNING

To avoid possible injury, death or loss of property from a machine runaway :

- *With the engine off, the tractor may move unexpectedly regardless of the gear shift position.*
- *Never leave the tractor without applying the parking brake.*

⊕ IMPORTANT

- The tractor may move slowly with the engine running even though the main and shuttle shift levers are in the neutral position. This is normal and is due to the fluid friction in the transmission. This symptom may occur during cold temperatures when the engine is running and low or medium range is selected with one of the 4 travel speeds engaged and the shuttle in NEUTRAL. To prevent this condition, be sure to apply the parking brake and not release the parking brake until the operator is ready to begin work.
- Never leave the tractor without applying the parking brake.
- Do not park the tractor on tall grass or hay. If grass or hay contacts a hot exhaust system, a fire could occur.



TURNING

Always reduce engine speed and make turns slowly to maintain control of the tractor and any implements or attachments.

WARNING

To prevent accidents due to loss of steering control :

- *If you turn at high speed, the tractor can turn over.*
- *Never use the differential lock while attempting to turn. This may result in accident, injury, and/or damage to machine.*

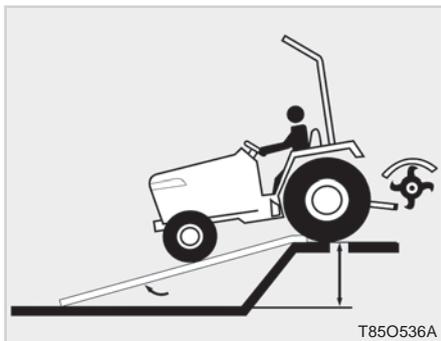
DRIVING ON SLOPES

1. Drive according to the conditions of the slope/hill. Always travel at a safe speed and do not try or do not overload the engine going uphill or when traveling with heavy loads.
2. Select a lower gear before starting uphill to prevent the engine from stalling under load.
3. Drive at a slow speed when traveling downhill. Always select a low gear before starting downhill. NEVER try to change gears on a downhill slope as machine runaway is possible.

WARNING

- *Be sure the Left and Right brake pedals are locked together before traveling on the road or working on slopes.*
- *Do not disengage the clutch or put the shift lever in the neutral position on a slope. Otherwise, a runaway condition could occur.*
- *Before entering a steep slope, move the shift lever down to a low gear and never try to move the shift lever on a slope. Serious accident can occur.*

PRECAUTIONS ENTERING AND EXITING FIELDS



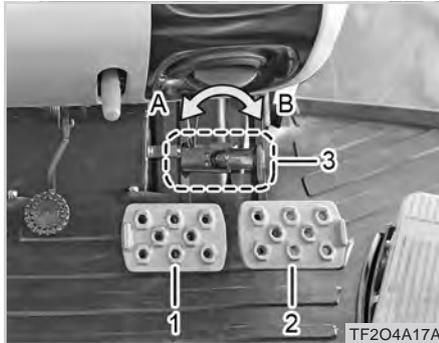
1. Make sure that the left and right pedal are interlocked.
2. Enter and exit fields through a driveway whenever possible. When crossing ditches or banks, always approach straight and do not attempt to cross at an angle.
3. If crossing a deep ditch or steep bank, it is recommended to turn around and cross or approach with the rear wheels first to maintain control. Use 4WD to assist with traction and control if necessary.

PRECAUTIONS WHILE DRIVING ON THE ROAD



(1) Turn Signal Light

1. Always turn the flasher lights on when traveling on the road. When turning left or right, be sure to alert other drivers on the road with the turn signals.
2. Do not use high beam headlights when another vehicle is approaching from the opposite direction to prevent diminishing the other driver's visibility.
3. Always interlock the left and right brake pedal while driving on the road.



(1) Brake Pedal (L) (2) Brake Pedal (R)
 (3) Pedal Interlock
 (A) Unlock (B) Lock

TF204A17A

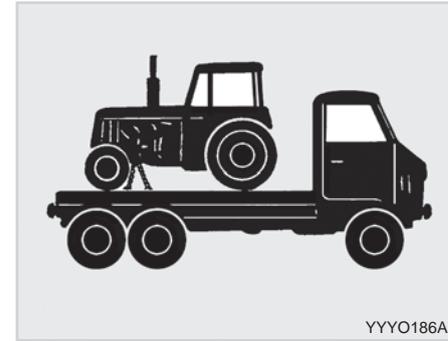
WARNING

- *In the event the tractor becomes inoperational during use on a roadway, move it to a safe place to service before attempting any repairs to minimize the risk for an accident or injury.*

WARNING

- *When you are driving on the road, observe all local traffic and safety regulations. Failure to do so may result in accident.*
- *No passengers should be permitted on the tractor while traveling on the road, even if the tractor is outfitted with an instructor seat and seatbelt.*

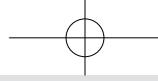
LOADING AND UNLOADING THE TRACTOR



YYO186A

5

1. It is recommended to load the tractor by backing onto the truck or trailer slowly in a low gear. Use spotters to assist with safe loading if possible.
2. If the engine stalls out, step on the brake pedal at once, and then release the pedal slowly to gently roll back to flat ground. Restart the engine, select a lower gear and begin loading again.



⚠ WARNING

- **Secure the tractor and attachments/implements to the truck/trailer with DOT approved straps or chains with sufficient weight ratings to cover the combined weight of the tractor + attachments/implements. Be aware of the height of the loaded tractor and avoid low clearance areas.**

PRECAUTIONS WHEN USING POWER STEERING



(1) Steering wheel

1. The power steering function is activated only while the engine is running. The steering wheel may require slightly more force to rotate when the engine is running at a slow speed or more weight is applied to the front axle.

When the engine is off, the steering wheel may be rotated for emergency steering but will require a significant amount of force to be applied as there will be no hydraulic assistance from the hydraulic pump under this condition.

2. If you operate the steering wheel, with the tractor stopped, more force may be required to turn the wheel than when the tractor is moving. Additional front weights, loader, etc. may also increase the force required to turn the steering wheel, especially while the machine is stopped.
3. When a loader is mounted, adjust the air pressure of the front wheel to its maximum specification. Adding rear counter ballast to the three-point hitch is also recommended to improve the machine balance when lifting loads.
4. When turning the steering wheel to its end, the operating sound of the safety valve (Relief valve) can be heard. Do not hold the steering wheel against the relief valve for extended periods of time as hydraulic temperatures may increase and damage the hydraulic system of the tractor.

 **NOTE**

The power steering system in this tractor is a load reaction, full hydraulic type.

- The full hydraulic system means that power necessary for power steering is transferred by hydraulic fluid only and therefore mechanical devices, like a rack and pinion or gearbox are not installed to the tractor. While driving down the road or working in the field, the steering wheel can continue to slowly rotate even though the front wheels have stopped steering to the left or the right. This differs from a highway truck or car, where the steering wheel will turn to the left or right until it reaches a stop.
- The load reaction type means that the reaction force or impact applied to the front axle is transferred to the steering wheel.

 **WARNING**

- *When driving on a road with an implement attached to the rear of the tractor, steering/drivability can be diminished. Driving at reduced speeds when traveling with rear implements or attachments is recommended.*
- *If malfunction occurs while driving on a road, stop the tractor in a safe place and service it. If it is not possible to move the tractor, turn on the hazard lights and set a warning triangle behind the tractor to alert on-comers of the machine in the road.*

 **WARNING**

- *The center of gravity of the tractor is higher compared to other common vehicles, so the possibility of the roll-over accident is very high. Be extra careful when driving on slopes, bumpy roads, roads with holes or puddles and narrow roads. Be sure to always fasten your seatbelt and keep the doors and windows closed while operating on roads. For ROPS units, always keep the ROPS in the upright, locked position and wear your seatbelt. NEVER wear a seatbelt on a ROPS unit when the ROPS is in the down position.*
- *If stopping the engine while driving, the steering performance can become deteriorated due to loss of hydraulic power, resulting in a severe accident. Never stop the engine while driving.*
- *Always keep both hands on the steering wheel while driving on the road.*

3-POINT HITCH CONTROL SYSTEM POSITION CONTROL LEVER



TF204A30A

- (1) Position Control Lever
(2) One-touch lever(lift/lower)

► POSITION CONTROL

1. The position control lever is used to lift or lower the three-point hitch (lower links)
2. Pushing the lever forward lowers the lower links while pulling the lever backward lifts the lower links.

3. The height of the lower link is precisely controlled proportional to the position of the lever.
4. The lower links are raised by hydraulic pressure supplied by the tractor. The lower links are lowered by the weight of the implement and are not lowered by hydraulic pressure and do not have hydraulic down pressure applied at any time.
5. Therefore, the implement attached to the lower link may be lifted by protrusion on the ground known as "floating".

NOTE

- If the position of the position control lever is changed before/after the engine is started, the three-point hitch will not move due to the safety interlock function.
- To release the three-point safety interlock, depress the lift/lower switch one time or cycle the position control lever one time.

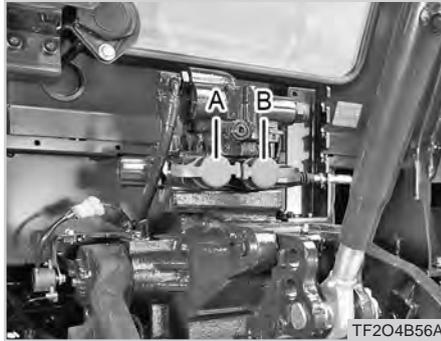
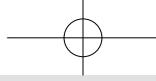
REMOTE HYDRAULIC DOUBLE ACTING VALVES



TF204B55A



TF204C56A



(1) Double acting lever (Self-return type)
(A) Port A (B) Port B

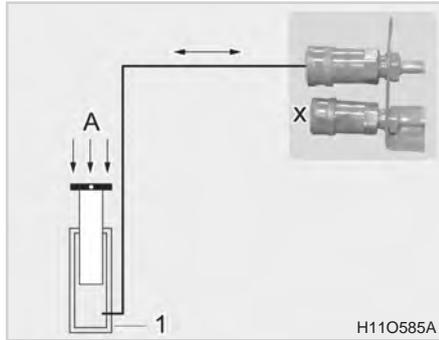
KIOTI supplies two types of double acting valves by region : self-return type and detent type.

- The self-return double acting valve lever will return to the neutral position when it is released. To operate the valve, the lever must be pushed or pulled (depending on direction of flow desired) continuously for hydraulic flow and is suitable for a function requiring a short operating time like a hydraulic cylinder.
- The detent double acting lever will lock in position once it is pushed or pulled (depending on direction of flow desired). The lever does not require the operator to hold it in place and is suitable for a function requiring continuous flow like a hydraulic motor or valve with independent controls.

⊕ IMPORTANT

- **Put the detent valve operating lever into the neutral position when the hydraulic implement is not in use. If the detent valve is kept in the operating position for an extended period of time, the relief valve is kept open and the temperature of the hydraulic fluid rises, leading to damage of various hydraulic parts, such as oil seals and O-rings.**
- **When the detent valve is in operation without an implement attached, the relief valve is opened placing unnecessary load on the hydraulic circuit and engine. Continued operation could lead to loss of power and damage to the hydraulic system.**
- **It is hard to start the engine while the detent valve is in operation. This is especially true in winter.**

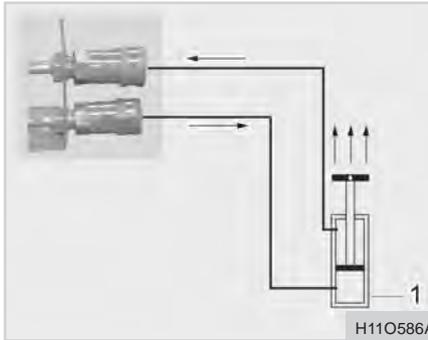
SINGLE ACTING AND DOUBLE ACTING CYLINDER



(1) Single Acting Cylinder
(A) External Load

This tractor is equipped with the remote valve of the double acting type. However, this valve can also be used with a single acting hydraulic cylinder.

1. Connect one end of the hydraulic port to the single acting cylinder as shown in the figure. The hydraulic pressure is properly supplied to the cylinder. However, when the hydraulic pressure is released, the cylinder is contracted only if there is outer force, such as the weight of the implement.



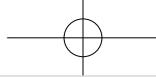
(1) Double Acting Cylinder

2. To contract the cylinder, operate the lever to the opposite direction of the expansion. Then, the hydraulic fluid is supplied from the hydraulic pump to the hydraulic port which is not connected, and the pressure rises as the port is blocked. However, this pressure is released as the relief valve opens.

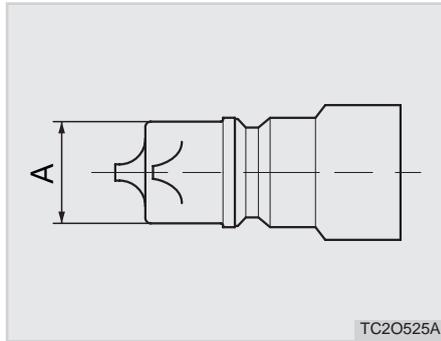
3. When the cylinder is contracted, the hydraulic fluid returns to the transmission through the same hose which extends the cylinder.

⊕ IMPORTANT

- It is recommended to use the double acting cylinder instead of the single acting cylinder if the implement will be operated frequently and continuously. If using the single acting cylinder too frequently or for an extended period of time, the hydraulic fluid can be overheated, resulting in deterioration of the hydraulic parts' durability as the main relief valve opens when the cylinder is contracted.



PT1/2 COUPLER SOCKET (IMPLEMENT)



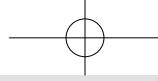
(A) Diameter

The hose unions used must comply with 1/2" ISO standards

Dimension (A) must be between 20.48 and 20.56 mm (0.806 and 0.809 in.).

CONNECTING AND DISCONNECTING AN IMPLEMENT

1. Turn the engine off before connecting an implement to the tractor's hydraulic valves.
2. Move the double acting valve lever forward and backward 4 to 5 times to release the pressure in the hydraulic line of the tractor. May become difficult Otherwise, May become difficult connect the couplers, and hydraulic fluid can be hydraulic hoses/lines storing pressure may result in hazardous exposure to the operator.
3. Remove any foreign material around the male and female couplers. If foreign material enters the hydraulic components, it can lead to malfunction of the system.
4. Open the dust-proof cover of the female coupler of the tractor and insert the male coupler of the implement. This can also be verified by visually confirming the collar of the coupler has returned to locked position.
5. Pull the hydraulic hose of the implement to check that the couplers are properly connected.
6. Start the engine and check the operating status and ensure no leaks.



DISCONNECTION

1. Turn the engine off before disconnecting an implement from the tractor's hydraulic valves.
2. Release any residual pressure in the hydraulic hoses of the implement and tractor by operating the double acting valve lever 4 to 5 times.
3. Remove any foreign material around the couplers.
4. Keep the implement balanced by removing any load applied. (Lowering it onto the ground, for example)
If disconnecting the hose while outer load is applied to the implement, it is hard to connect the implement in the future.
5. Remove the male coupler by pushing the female coupler boss on the tractor backward.
6. Close the dust-proof cover of the female coupler of the tractor. Wrap the male coupler of the implement with a plastic bag or another type of cover to prevent contamination.

WARNING

- ***Hydraulic hoses under pressure will be hard to connect or dis-connect and can spray fluid under pressure when trying to connect.***
- ***Always wear safety glasses and gloves when connecting/ dis-connecting an implements hydraulic hoses to the tractor.***
- ***Always purge hydraulic pressure from hydraulic hoses before disconnecting from the tractor by turning the engine off, lowering the implement to the ground and cycling the remote valve lever 4-5 times in each direction before dis-connecting the hoses from the tractor's hydraulic circuit.***

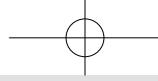


TRANSPORTING

TRANSPORTING TRACTOR..... 6-2
 LOADING INTO AND UNLOADING OUT OF THE TRUCK6-2
 LASHING THE TRACTOR TO TRANSPORT TRAILERS6-4
 HOW TO TOW THE TRACTOR.....6-5

6

6



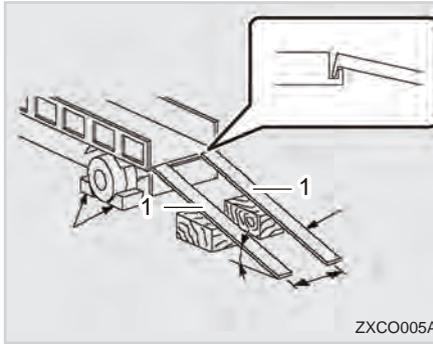
TRANSPORTING TRACTOR

Tractors are best transported in flatbed carriers. Use chains to secure the tractor to the carrier.

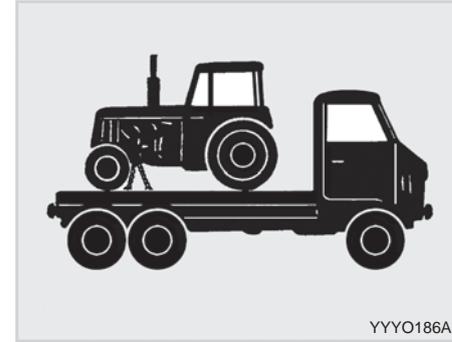
The axles and tractor frame are suitable attachment points.

Before transporting the tractor on a low-loader truck or flatbed rail wagon, make sure that the hood is secured over the tractor engine and that doors, roof hatch (if equipped) and windows are properly closed.

LOADING INTO AND UNLOADING OUT OF THE TRUCK

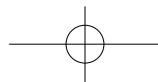


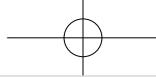
(1) Loading Ramps



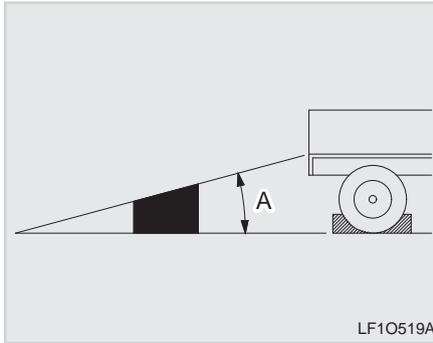
1. Check the width of the cargo bed of a transporting vehicle or trailer.
2. Set ramps to the transporting vehicle firmly.
3. The length of the loading ramps should be at least four times the height of the loading bed.

4. It is recommended to back the tractor onto the transporting vehicle and drive the tractor OFF in the forward direction.



**⚠ WARNING**

- When transporting the tractor with a truck, secure the tractor firmly onto the truck and be sure to confirm the height of loaded tractor to avoid relevant to any overhead obstructions or limited clearance scenario not just tunnels and bridges.
- *Be careful when transporting your tractor because these accidents do happen.*



(A) Within 15°

⚠ CAUTION

- Select the ramp load by checking the weight of the tractor.

8. During vehicle transporting, pay attention to motor vehicle laws, mark the transport with the applicable decals or markings.
9. Be sure to Confirm the overall height of the vehicle with the tractor loaded, make sure that. It does not exceed the maximum height for relevant to any overhead obstructions or limited clearance scenario not just tunnels and bridges.

5. Maintain low speed while loading/unloading.
6. After loading the tractor onto the transport vehicle, secure the tractor first by setting the parking brake, then tying down to the transport with chains or straps. Utilize the tie down points built into the tractor to not damage the tractor during transit.

7. The maximum permitted angle for engine operation is 10°. Under no circumstances ins the machine permitted to endure any angle in excess of 10° while the engine remains running. This may result in loss of lubrication, accelerated engine wear, damages up to and including full engine failure.



LASHING THE TRACTOR TO TRANSPORT TRAILERS



(1) Lashing Strap

Point for lashing the tractor. (Front)

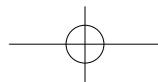
CAUTION

- Danger to life from lost cargo:**
- Inadequately secured cargo presents a high risk of the cargo or tractor detaching itself during driving, and falling off the transport trailer.
 - The tractor has a sufficient number of fixture points where suitable devices such as lashing straps or tensioning chains can be attached. In addition, use lockable chock blocks. Loose wedges might get lost and are therefore not permissible. Always observe legal requirements for securing cargo.
 - Select the size of lashing straps and tensioning chains in relation to tractor weight.



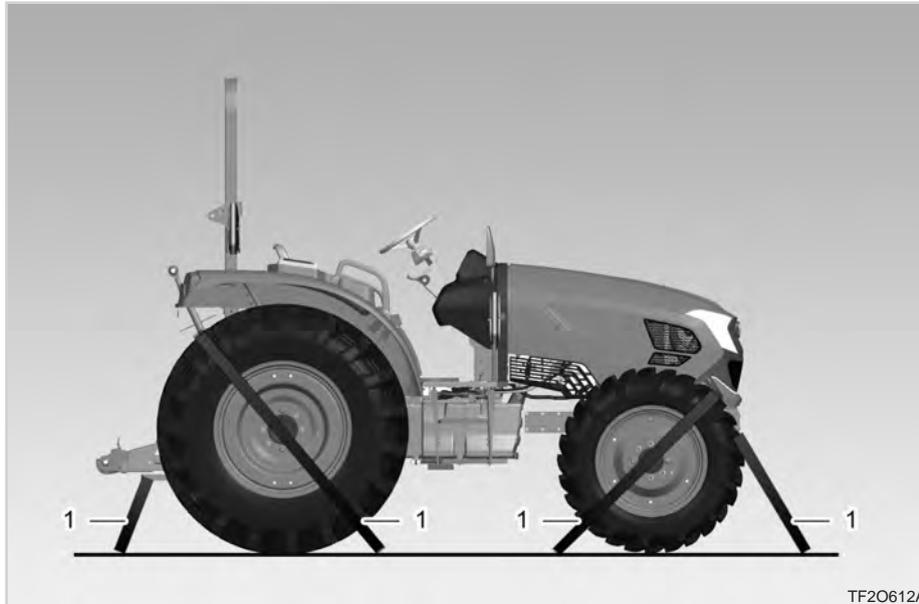
(1) Lashing Strap

Point for lashing the tractor. (Rear)

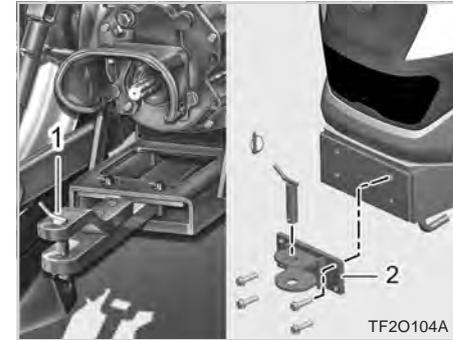




HOW TO TOW THE TRACTOR



(1) Lashing Strap



(1) Draw-bar

(2) Towing Hook

1. Range Shift lever to neutral position.
2. Adjust the steering wheel so that all wheels point in a straight line.
3. Towing the tractor using a towing hook or draw-bar.

6

Example of a tractor lashed across the wheels. Additional cargo securing in front and rear, and use of chock blocks.



 **CAUTION**

- **Never tow the tractor faster than 6 mph (10 km/h). An operator must steer and brake the tractor under tow.**
- **When the engine is not running, more force is required to turn the steering wheel and pedal travel is longer (no hydraulic assistance).**

 **IMPORTANT**

- **If the engine is capable of running, switch off front-wheel drive.**
- **NEVER HITCH ANYTHING TO THE AXLE HOUSING OR ANY OTHER POINT.**
- **The front hitch may be used for towing on hard-surfaced roads only.**



3-POINT HITCH IMPLEMENT AND LOADER OPERATION

REMOVAL AND INSTALLATION OF 3-POINT HITCH IMPLEMENT (WITH PTO SHAFT) 7-2

OPERATION OF 3-POINT HITCH IMPLEMENTS.... 7-5

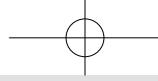
ADJUSTMENT OF TOP LINK	7-6
CONNECTING THE TOP LINK.....	7-7
ADJUSTMENT OF TELESCOPIC STABILIZERS	7-7
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PTO & PTO SHIELD GUARD.....	7-10
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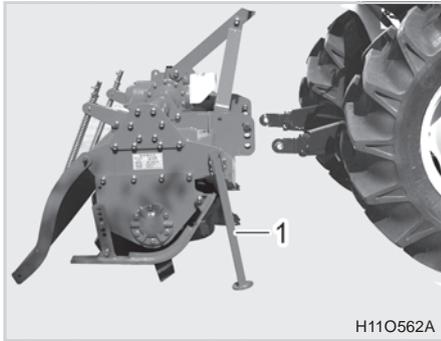
DRIVING ON SLOPE.....	7-13
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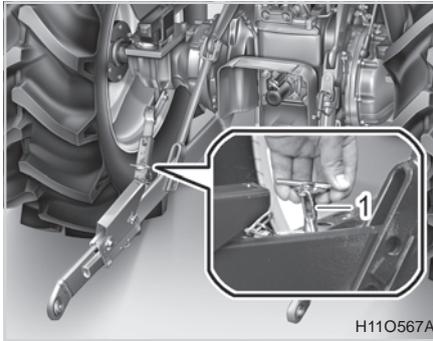
7



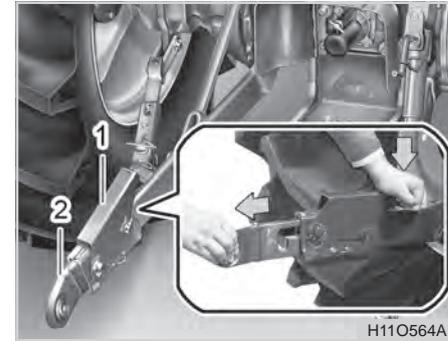
REMOVAL AND INSTALLATION OF 3-POINT HITCH IMPLEMENT (WITH PTO SHAFT)



(1) Implement Support



(1) Telescopic Stabilizers Pin



(1) Latch (2) Lower Link End

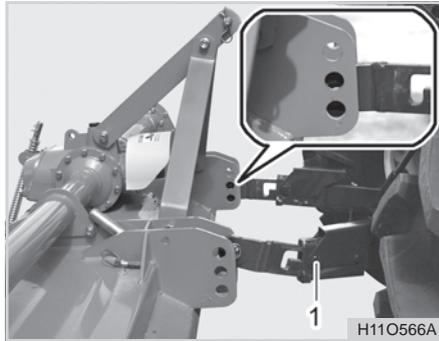
1. Drive the tractor backwards to move close to an implement (approx. 1-2 inches). Then, adjust the height of the lower link to be parallel to the pins of the implement.
2. Put all the shift levers in the neutral position, stop the engine, and apply the parking brake.

3. Remove both of the Telescopic Stabilizers pins allowing the lower links to swing outward towards the rear tires.

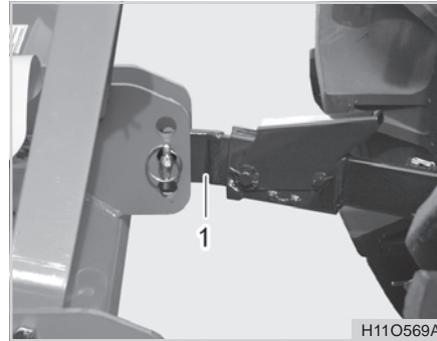
4. Press the latch to pull out the telescopic link ends.

⊕ IMPORTANT

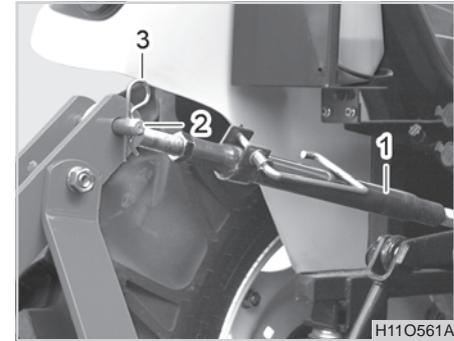
- When removing/installing an implement, remove the telescopic stabilizer pins to use the lower link end (cassette type) effectively.



(1) Lower Link



(1) Lower Link End



(1) Top Link
(3) Snap Pin

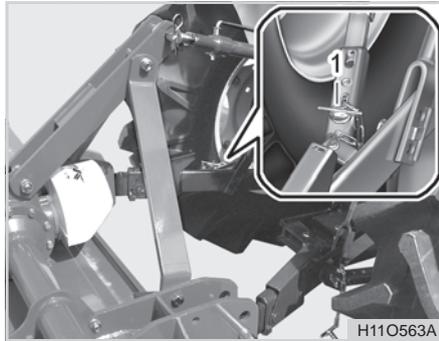
(2) Lock pin

5. Connect the lower links to the implement with the pins supplied with the implement

6. Start the engine and slowly drive backwards sliding the telescopic link ends back into the lower links. A verbal "click" should be heard when the ends lock into position. Before operating the machine, a visual inspection should be made to confirm the telescopic link ends are in the locked position (telescopic end is pushed into the lower link & latch is resting against the lower link at the end closest to the telescoping end of the lift arm).

7. Release the top link from its bracket and turn it to adjust its length to align with the upper bracket mounting hole of the implement. Then, connect it to the mounting hole, insert the lock pins, and secure it with the snap pin. Remove the implement support as necessary.

7



(1) Telescopic Stabilizers Pin

8. Turn the top link to level the implement. Then, move the implement to the left and right, and secure it into the proper position by fitting the telescopic stabilizers lock pin
9. With the engine off and the implement on the ground, place the PTO shifter inside the tractor cab in neutral. Align the splines of the tractor shaft with the implement shaft. Depress the lock button or

slide the coupler rearward on the implement shaft and slide the implement shaft on the tractor shaft releasing the coupler so it locks in the groove on the tractor shaft. Make sure the coupler locks by pushing & pulling the shaft several times.

⊕ IMPORTANT

- **Consult your Local Authorized KIOTI Tractor Dealer for adjustment of the PTO shaft length.**

⊕ IMPORTANT

- **When reviewing the PTO shaft or adjusting the length, make sure there is a minimum of 152 mm (6 inches) of overlap of the PTO shaft tubes when the shaft is extended to its maximum working length between the tractor and the piece of equipment. Also make sure there is 76 mm (3 inches) of clearance between the shaft tube ends and the universal joints at both ends when the PTO shaft is at its shortest working length between the tractor piece of equipment. If not, DO NOT USE the PTO shaft and consult your Local Authorized KIOTI Tractor Dealer for assistance.**
- **Move the joint back and forth to check that its lock pin is properly seated to the groove of the PTO shaft.**



OPERATION OF 3-POINT HITCH IMPLEMENTS

10. Remove the implement in the reverse order of installation and use the implement support as necessary.



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(1) Top Link
(2) Lift Rod (L)

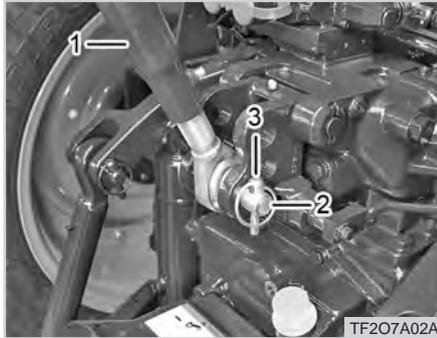
(3) Lift Rod (R)
(4) Check Link

(5) Lower Link
(6) Lift Cylinder

(7) PTO Shaft



ADJUSTMENT OF TOP LINK



(1) Top Link
(3) Lynch Pin

(2) Pin

Install the top link to the desired position (see page 7-7) and install the pin and lynch pin.

To connect and adjust the top link:

1. Release the top link from the storage bracket.
2. Loosen the lock nut and hold the portion of the center link that connects to the implement.

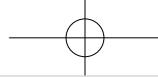
3. To increase the length, rotate the barrel adjusting lever of the top link clockwise. To reduce the length, rotate the barrel adjusting lever of the top link counter-clockwise.
4. Attach the top link to the implement with the pins supplied with the implement.
5. Adjust the top link to level the implement to the desired position.
6. Tighten the jam nut against the barrel of the top link to prevent movement during operation

WARNING

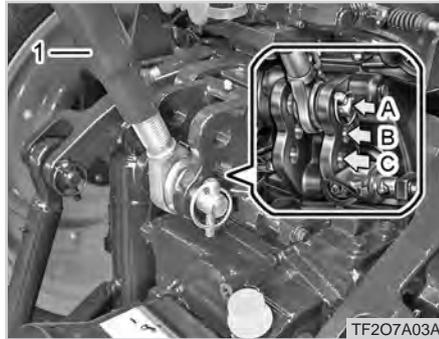
- ***Stop the engine and lower the attached implement onto the ground before detaching the implement from the lower link. Ensure that the attached implement is firmly supported and there is no pressure remained in the hydraulic system to remove the lower link holding the pin. To remove any residual pressure, push and pull the hydraulic control lever front and back several times.***

NOTE

- When there is no implement attached, lock the lower links in a position so they do not contact the tires with the telescopic stabilizer lock pins.
- Secure the top link into the storage bracket



CONNECTING THE TOP LINK



(1) Top Link

When attaching an implement, connect it according to its draft as follow.

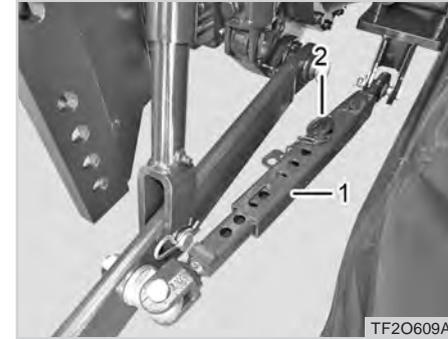
- A: No draft required. Examples include a rotary cutter, post hole digger, sprayer, etc.
- B: Heavy draft required. Examples include a plow, chisel plow, sub-soiler, etc.
- C: Light draft required. Examples include field cultivator, drag harrow, road blade (for leveling, spreading gravel)

1. Adjust the angle of the implements to the desired position by shortening or lengthening the top link.
2. Adjustment of the top link will vary based on the implements used.

⚠ CAUTION

- When you are attaching an implement not requiring any draft, mount the assembling spot of the top link into the hole "A".
- When you are attaching an implement. (Like plow) Requiring some draft, mount the top link into the hole "B", "C".

ADJUSTMENT OF TELESCOPIC STABILIZERS

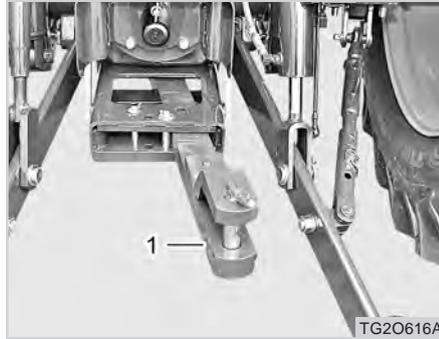


(1) Telescopic Stabilizers (2) Pin

1. Adjust the check link to control horizontal sway of the implement. It is also used to set the implement on the back of the tractor in center.
2. To adjust the check link, pull out the pin and adjust it until the desired transverse moving distance is obtained.
3. Fit the pin to the gardening hole (Fixed) for normal operation and long hole (Moving) for draft work.



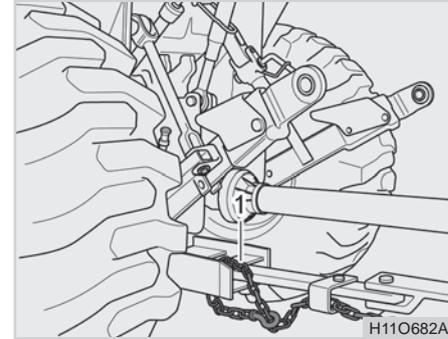
DRAW BAR



(1) Draw Bar

The draw bar is used to pull an implement, such as a cutter, harrow, sprayer, trailer, etc. This tractor is equipped with a "step" drawbar. For PTO applications, the "step" should be lower than the main line of the drawbar to lower the height of the towed implement and increase the distance between the top of the drawbar and the implement PTO shaft. For non-PTO applications, the drawbar may be flipped to position the "step" upward

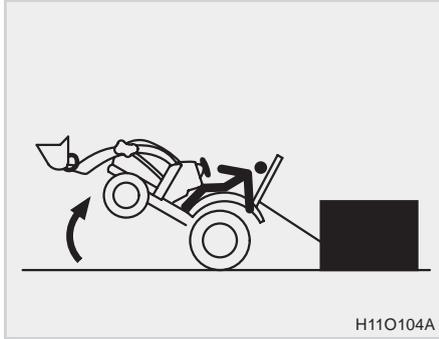
to raise the implement above the main line of the drawbar to level the implement to the desired height while in tow. Make sure to check the max. towing weight of the implement and max. vertical load that can be applied to the draw bar.



(1) Safety Chain

WARNING

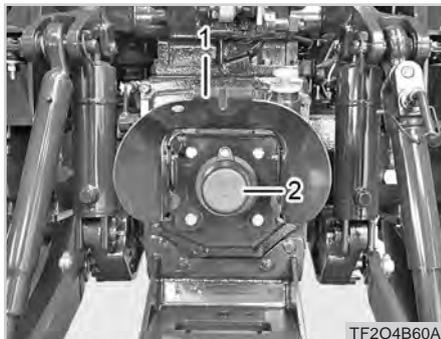
- **Never use any other part for pulling except draw bar. Pulling with top link, ROPS and etc. will cause damage to the tractor and could lead to a fatal accident.**
- **Be sure to install an auxiliary safety chain when connecting a trailer or other towed implement.**



⚠ WARNING

- ***Never use any other part for pulling except draw bar. Pulling with top link, ROPS and etc. will cause damage to the tractor and could lead to a fatal accident.***
- ***Be sure to install the auxiliary safety chain when installing a trailer.***

PTO & PTO SHIELD GUARD



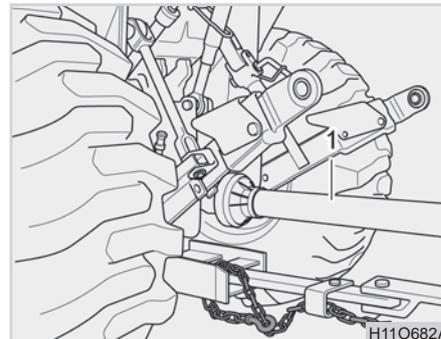
(1) PTO Shaft Cover
(2) PTO Shaft Cap

SPECIFICATION

PTO type	Nominal diameter	Number and type of splines	Nominal PTO rated rotational frequency	Recommended PTO power at rated engine speed(kW)
1	1-3/8	6 straight splines	540	RX6640P : UP to 44.07 RX6640PC : UP to 40.9
			540E	RX7340P : 49.0 RX7340PC/PCR : UP to 45.4
PTO shield guard		Category	Regulation	
		T1	Compliance with ISO500-1	

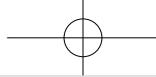
Before connecting an implement to the PTO, remove the PTO shaft cap and raise the PTO safety shield for improved access. Once the implement PTO shaft has been connected to the tractor & fitment confirmed, lower the PTO safety shield into place to guard against entanglement with rotating objects.

INSTALLING PTO SHAFT



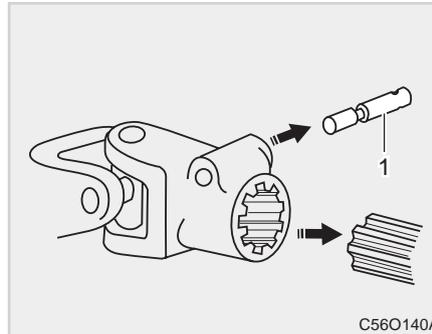
(1) Universal Joint

1. Consult your Local Authorized **KIO-TI** Tractor Dealer for adjustment of the PTO shaft length.
2. When reviewing the PTO shaft or adjusting the length, make sure **there is a minimum of 6 inches (152 mm) of over of the PTO shaft tubes when the shaft is extended to its maximum working length between the tractor and the piece of equipment. Also make sure there is 3 inches (76 mm) of clear-**

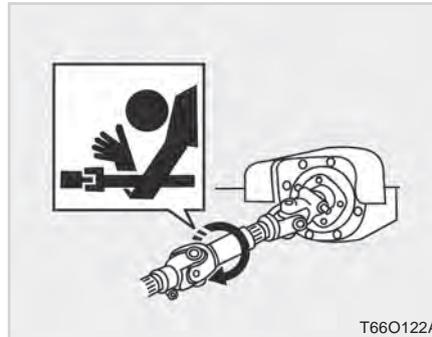


ance between the shaft tube ends and the universal joints at both ends when the PTO shaft is at its shortest working length between the tractor piece of equipment. If not, **DO NOT USE** the PTO shaft and consult your Local Authorized **KIOTI** Tractor Dealer for assistance.

3. Move the joint forward and backwards to ensure the lock pin is properly seated into the groove of the tractor's PTO shaft.



(1) Lock Pin



⚠ WARNING

- **Make sure the PTO safety shield is in place before engaging the PTO.**
- **The PTO shaft and universal joint shaft should not be interfered by any surrounding parts.**
- **Never go close to the rotating PTO shaft or universal joint shaft. A severe accident can happen.**

LOADER



TF20799A

- (1) Loader Mounting Bracket
- (2) Boom Cylinder
- (3) Loader Arm
- (4) Boom
- (5) Grill Guard
- (6) Tilt Cylinder
- (7) Bucket

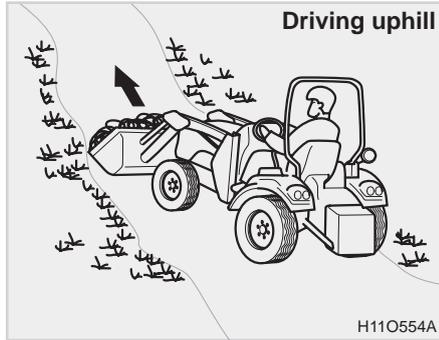
For detailed information about installation and use of the front loader, refer to the separate manual of the loader.

+ IMPORTANT

- **Check the transmission fluid level and add fluid as necessary after installing an implement.**



DRIVING ON SLOPE WHEN LOADED BUCKET AND REAR BALLAST ARE INSTALLED



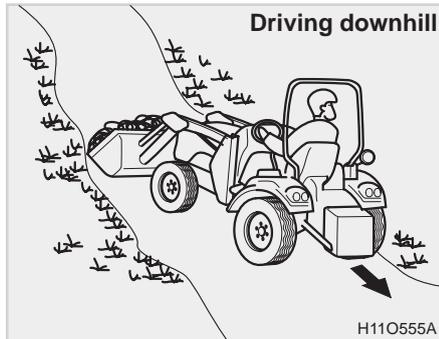
keep the bucket end of the tractor uphill. In other words, drive forward uphill and backward downhill.

! WARNING

To avoid injuries:

- *Keep the loader arm as low as possible when driving, especially when carrying a load or when working on a slope.*

WHEN UNLOADED BUCKET AND REAR BALLAST ARE IN-



When driving uphill with a loaded bucket and rear ballast installed,



When driving downhill with an empty bucket and rear ballast installed,

JOYSTICK LEVER

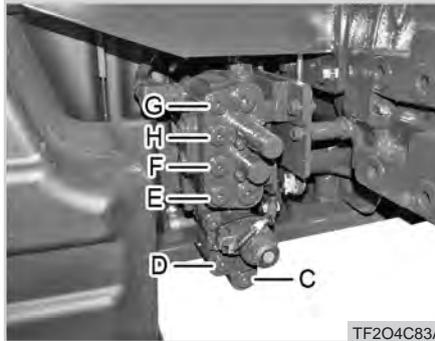
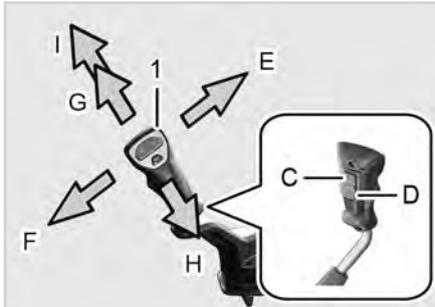
keep the rear ballast facing uphill. In other words, drive backward uphill and forward downhill.

Use the 4WD to increase traction when driving on a slope with the loaded bucket and rear ballast installed.

Set the bucket and implement as low as possible for vehicle stability and safety while driving.

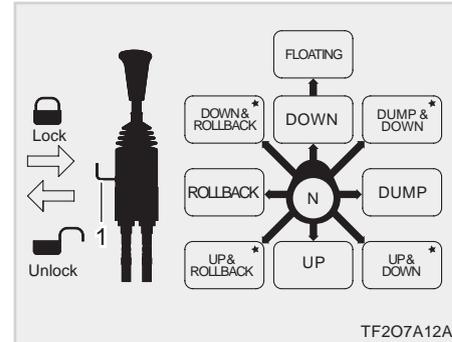
PARKING WITH THE LOADER INSTALLED

When parking the tractor with a loader installed or other implements/ attachments installed, always lower the bucket and other implements/ attachments to the ground before exiting the tractor.

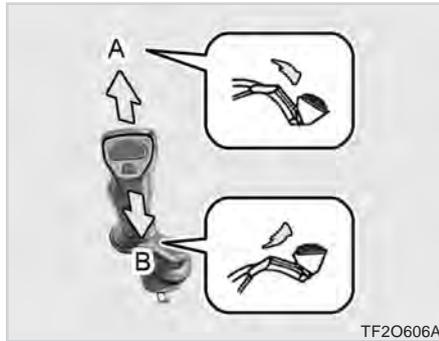
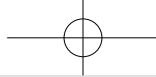


(1) Joystick Lever
 (C) Releasing Grab (D) Engaging Grab
 (E) Bucket Roll Back (F) Bucket Dump
 (G) Boom Down (H) Boom Up
 (I) Boom Floating

C		Releasing grab	D		Engaging grab
E		Bucket roll-back	F		Bucket dump
G		Boom Down	H		Boom Up
I		Boom floating			



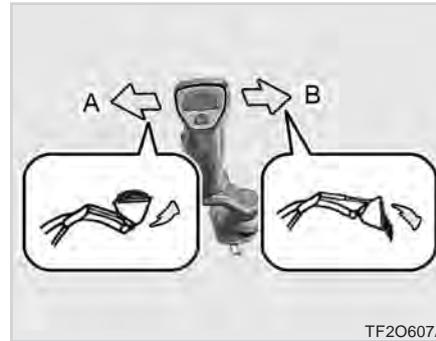
(1) Joystick Lock Lever



(A) Boom Down (B) Boom Up

1. Boom up/down

Pulling the joystick lever back (B) lifts the boom of the loader while pushing it forward (A) lowers the loader boom.



(A) Bucket Roll Back (B) Bucket Dump

2. Roll back & dump

"Roll back" means that the bucket scoops up. To operate this function, move the joystick lever to the left (A). "Dump" means that the bucket dumps. To operate this function, move the joystick lever to the right (B).

3. Up & roll back

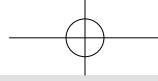
The boom can be lifted and the bucket can scoop up by operating the joystick lever to the rear left position (7 o'clock position). These two operations can be performed simultaneously under most circumstances.

4. Up & dump

The boom can be lifted and the bucket can dump by operating the joystick lever to the rear right position (5 o'clock position). These two operations can be performed simultaneously under most circumstances.

5. Locking/unlocking joystick

Pressing the joystick lock lever in locks the joystick while pulling it outward unlocks the joystick as shown in the figure.



⚠ WARNING

- *Be sure to lock the joystick lever when a loader is not installed or the loader is not in operation to prevent accidental movement of the loader or pressurization of the hydraulic circuit (loader not installed).*
- *Do not leave the tractor with the boom off the ground under any circumstances to prevent accidental movement of the loader while entering/exiting the cabin.*
- *When the joystick lever is not in use, lock it since the implement can fall down if the lever is operated accidentally.*

⊕ IMPORTANT

- **If the boom or bucket is not operating, properly, lower the bucket onto the ground, stop the engine, and reduce all hydraulic pressure. Then, check all the hydraulic for leaks, debris, or signs of inadequate oil flow.**
- **Before connecting or disconnecting the hydraulic hose coupling for the loader, lower the boom onto the ground, stop the engine, and move the joystick lever in all directions several times to remove residual pressure in the system and make connecting/dis-connecting easier.**

⚠ WARNING

To avoid accidents:

- *Pressurized diesel fuel or hydraulic fluid may be sprayed on your skin or eyes, leading to a severe injury or even death.*
- *To check for hydraulic leaks, use a small board or other object to block spraying fluids. Always wear proper PPE including safety goggles and gloves.*
- *If your eyes come into contact with the hydraulic fluid, seek medical attention immediately.*
- *Never try to disconnect hydraulic hoses and couplers while the tractor and attachment/implement are in operation. Release the hydraulic circuit pressure by lowering the implement/attachment to the ground, turning the engine off and operating the joystick or control lever multiple times in all directions.*



MAINTENANCE

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8

8



MAINTENANCE

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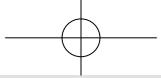


MAINTENANCE CHECK LIST

DAILY CHECK ITEM

SERVICE SCHEDULE		Page
ITEM	SERVICE REQUIRED	
Engine Oil	Check the oil level and add as needed. Do not overfill.	8-15
Engine Air Filter and Air Intake System	Check restriction indicator. (If equipped) Check for leaks and damaged components. Do not use compressed air to clean elements.	8-21, 8-29
Engine Cooling System	Clean debris from oil cooler, radiator screen and grills. Check coolant level cold, add premixed coolant as needed.	8-39
Seat Belt	Check the condition of seat belt and mounting hardware. Repair or replace as needed.	8-17
Tires	Check for wear, damaged tires and checking tire inflation.	
Parking Brake	Check operation and adjust if required.	
Clean Pedals	Clean brake pedals, foot throttle, clutch pedal and footrest area.	8-25
General Items	Check for loose or broken parts, damaged operator cab, instrument operation, loose wheel nuts / bolts, oil leaks and damaged or missing signs. (Decals)	8-19
PTO	Inspect the splines. Replaced damaged or missing shields and guards.	
Three-point Linkage	Check operation and condition of pins, links and bars.	
Loader (If Equipped)	Check mounting hardware for loose or broken parts.	

※ For detailed information about maintenance codes, refer to the corresponding section in each chapter.



MAINTENANCE SCHEDULE CHART

NO.	ITEM	Classifi- cation	Run hour (interval)													Run age			If neces- sary	Emis- sion parts	Page					
			Daily	Initial 50 hours	50	100	200	250	400	500	600	800	1000	1500	3000	1 Year	2 Year	3 Year								
1	3 Point hitch & drawbar	Check	●																							
	Brake & clutch pedal	Check	●																							8-17
	Coolant level	Check	●																							8-16
	Engine oil level	Check	●																							8-15
	Fan belt, A/C belt	Check	●																							8-18 8-26
	Front axle oil level	Check	●																							8-32
	Fuel level	Check	●																							8-13
	Gauge, meter, warning lamps, lights	Check	●																							8-17
	Parking brake	Check	●																							
	PTO cover & guard condition	Check	●																							
	Radiator & Coolers cleaning	Clean	●																							8-16
	Seat belt	Check	●																							8-17
	Tire pressure & damage	Check	●																							
	Transmission oil level	Check	●																							8-14
	Wheel bolt and nut torque	Check	●																							8-19



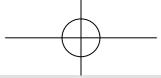
NO.	ITEM	Classifi- cation	Run hour (interval)													Run age			If neces- sary	Emis- sion parts	Page			
			Daily	Initial 50 hours	50	100	200	250	400	500	600	800	1000	1500	3000	1 Year	2 Year	3 Year						
6	Engine oil & Filter (CRDI - Tier4, Stage V)	Change						●									●			●			8-35	
	Front axle oil	Change						●																8-32
7	Cabin air filter	Replace							●									●						8-37
8	Front axle pivot	Adjust								●														
9	Engine valve clearance	Adjust									●													8-38
	Transmission oil	Change									●									●				8-33
10	Coolant	Change												●				●						8-39
	Fuel injection nozzle / Injec- tion pressure	Check												●									#	
11	Injection pump	Check														●							#	
12	Cooling system flushing	Clean																●						8-39



NO.	ITEM	Classifi- cation	Run hour (interval)													Run age			If neces- sary	Emis- sion parts	Page	
			Daily	Initial 50 hours	50	100	200	250	400	500	600	800	1000	1500	3000	1 Year	2 Year	3 Year				
13	Battery	Replace																		●		8-24
	Bulb	Replace																		●		8-52
	Fan belt, A/C belt	Replace																		●		8-18 8-26
	Fuel line	Replace																		●	#	8-23
	Fuse	Replace																		●		8-46 8-50 8-52
	Intake air hose	Replace																		●		8-29
	Power steering hose and oil line	Replace																		●		8-29
	Radiator hose and clamp	Replace																		●		8-27

⊕ IMPORTANT

- The items listed above "#" marked items are registered as emission related critical parts by KIOTI in U.S. EPA exhaust emission standard non-road emission regulation. As the engine owner, you are responsible for the performance of the required maintenance on the above instruction.



MAINTENANCE SCHEDULE CHART BY OPERATING HOURS

Run Hour	Check List												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Daily	●												
50		●			●								
100		●	●										
150		●											
200		●	●	●									
250		●											
300		●	●										
350		●											
400		●	●	●		●							
450		●			●								
500		●	●				●						
550		●											
600		●	●	●				●					
650		●											
700		●	●										
750		●											
800		●	●	●		●			●				
850		●			●								

Run Hour	Check List												
	1	2	3	4	5	6	7	8	9	10	11	12	13
900		●	●										
950		●											
1000		●	●	●			●						
1050		●											
1100		●	●										
1150		●											
1200		●	●	●		●		●					
1250		●			●								
1300		●	●										
1350		●											
1400		●	●	●									
1450		●											
1500		●	●				●			●			
1550		●											
1600		●	●	●		●			●				
1650		●			●								
1700		●	●										
1750		●											



Run Hour	Check List												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1800		●	●	●				●					
1850		●											
1900		●	●										
1950		●											
2000		●	●	●		●	●						
2050		●			●								
2100		●	●										
2150		●											
2200		●	●	●									
2250		●											
2300		●	●										
2350		●											
2400		●	●	●		●		●	●				
2450		●			●								
2500		●	●				●						
2550		●											
2600		●	●	●									
2650		●											

Run Hour	Check List												
	1	2	3	4	5	6	7	8	9	10	11	12	13
2700		●	●										
2750		●											
2800		●	●	●		●							
2850		●			●								
2900		●	●										
2950		●											
3000		●	●	●			●	●		●	●		
Every 1 year				●	●	●	●						
Every 2 year										●		●	
Every 3 year											●		
If necessary			●	●	●	●	●						●

LUBRICANTS

To prevent serious equipment damage, use only genuine **KIOTI** fluids, oils and greases, or equivalents.

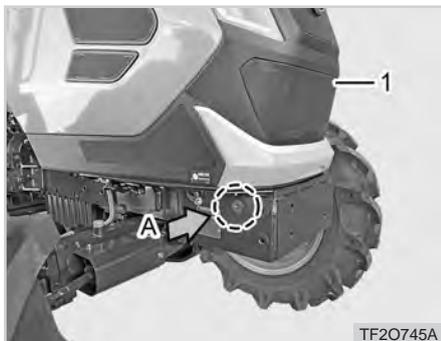
NO.	SECTION	CAPACITY [U.S.gal. (L)]	LUBRICANTS
1	Fuel	26.4 (100)	Ultra-low sulfur diesel (Sulfur content: 15 ppm or less)
2	Coolant	2.51 (9.5)	An antifreezing solution [Ethylene glycol (Pink)] + Pure water (50 : 50)
3	Engine oil (Filter Included)	2.83 (10.7)	CJ-4. 10W-30 from -35°C to 30°C. 15W-40 from -17°C to 50°C
4	Transmission oil	11.75 (44.5)	Daedong : S-UTF 38 Shell : Donax-TD Low Vis , Spirax S3 TLV BP : AUTRAN SYN 295 Petro-Canada : Duratran XL Synthetic Blend Phillips 66 : PowerTran™ Fluid Low Vis Valvoline : Unitrac Low Viscosity
5	Front axle oil	2.6 (10.0)	Gear Oil (SAE 90)
6	Front axle case (LH, RH)	0.2 + 0.2 (0.9 + 0.9)	
7	Grease - Ref to "Grease fitting location" in chapter 7.	Until grease comes out from gaps	SAE multi-purpose type grease

**⚠ WARNING**

- *Check the oil level daily. Correct the oil level, if needed, before operating.*
- *Always check and add oil with the tractor on a flat, level surface.*
- *Do not deliberately tamper with or misuse the engine emissions control system; in particular with regard to deactivating or not maintaining an exhaust gas recirculation (EGR).*
- *Maintenance or improper operation or performance of the emissions control system should be reviewed, performed or repaired immediately. Continued operation without performing maintenance or repairs could lead to serious engine damage.*
- *Only use clean, ULSD diesel fuel from a reliable, clean source. Dirty or contaminated fuel can cause premature fuel system wear or component damage.*
- *Use the following fuel to maintain the performance of the emissions control system. Fuel with Sulphur content not greater than 10 mg/kg (15 PPM), cetane number not less than 45 (40 minimum in North America) and FAME content not greater than 8% v/v shall be used.*

DAILY CHECK

HOW TO OPEN THE HOOD



(1) Hood release
(A) Push

1. To open the hood, while pushing down and holding the front section of the hood, press the hood release inward, and then raise the hood.
2. To close the hood, press the front section of the hood until it is locked into its original position.
3. Do not apply excessive force to the hood release or to the front grill to prevent damage when opening and closing the hood.



(1) Hood

⚠ CAUTION

- Never open the hood while the engine is running.

📖 NOTE

- If noise/squeaks are produced from the hood during driving, check the rubber molding. If damaged, replace it.

WALK AROUND INSPECTION

For your own safety and maximum service life of the machine, make a thorough daily inspection before starting the engine and operating the machine.

⚠ CAUTION

To avoid personal injury:

- Place the transmission in neutral, apply the parking brake, lower any implements/ attachments to the ground, turn the engine off and remove the key from the ignition before performing any maintenance or inspections. Always perform inspections and maintenance on level ground.

Look around and under the tractor for items such as loose bolts, trash build-up, oil or coolant leaks, broken or worn parts.



CHECKING AND ADDING FUEL



(1) Fuel fill cap

To prevent overtightening, the fuel fill cap has a built in ratchet. To loosen the cap, rotate slowly counterclockwise. To tighten the cap, rotate clockwise till the cap "clicks".

WARNING

- **Make sure to use clean, filtered, ULSD diesel fuel only.**

Fuel Tank Capacity

26.4 U.S.gal. (100 L)

1. Turn the key switch to "ON", check the amount of fuel by fuel gauge.
2. If the needle on the fuel gauge is close to "E" or the fuel level is low, open the fuel tank fill cap and add fuel.
3. After adding the fuel, reinstall the fuel tank fill cap.

CAUTION

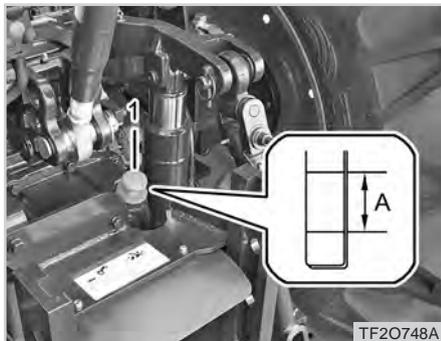
To avoid personal injury:

- **Do not smoke while refueling.**
- **Add fuel in a well-ventilated area.**
- **Be sure to stop the engine before refueling.**
- **Dirt or sand contained in fuel may cause the fuel injection pump to malfunction, use a strainer when refuelling.**

IMPORTANT

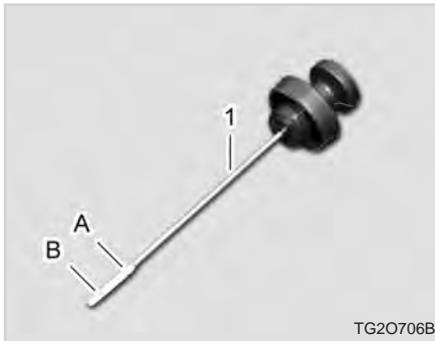
- **Be careful not to spill during refueling. If a spill occurs, clean it up immediately to reduce the risk of fire.**
- **Be careful not to spill during refueling. If a spill occur, wipe it off at once, or it may cause a fire.**
- **If unit is not used for a long time, check the fuel for moisture and contaminants (biological agents) before using to prevent damage to the fuel system or engine.**

CHECKING TRANSMISSION OIL LEVEL



(1) Oil dipstick & Filler plug
(A) Oil level is acceptable within range

1. Park the machine on a flat surface, lower the implement/attachments to the ground.
2. Depress the brake pedals and apply the parking brake.
3. Set all shift levers into the neutral position.
4. Stop the engine and remove the key from the ignition.



(1) Oil dipstick
(A) Upper limit (B) Lower limit

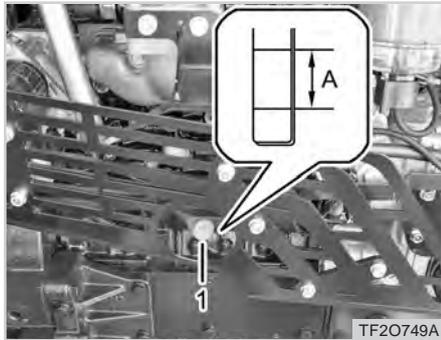
5. Wait five minutes after turning the engine off to allow fluid to return to sump. Pull out the oil dipstick, clean it, and then insert it into its original position. Pull it out again and check if the oil level is within the specified range.
6. If the oil level is too low, add some new oil so that the level is within the allowable range. (Refer to "Replacing transmission oil and Hydraulic filter" in this chapter for fluid specs.)

⊕ IMPORTANT

- If the oil level is low, do not operate the tractor until the oil level has been returned to the normal operating range.
- Never add oil over the upper limit.
- Be sure to check the oil level after installing hydraulic implements/attachments. Add the fluid as needed.
- Check the oil level with the cylinders of an implement extended and check again with cylinders retracted. Add the oil to adjust average oil level in the range of the oil limit (upper or lower).



CHECKING ENGINE OIL LEVEL



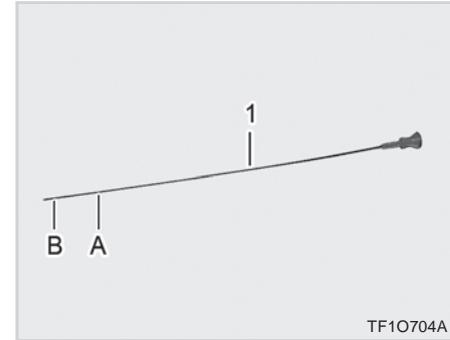
(1) Engine oil dipstick
(a) Oil level is acceptable within this range

1. Check the engine oil daily.
2. Park the tractor on level ground, lower any implements/attachments to the ground, place the transmission in neutral, apply the parking brake, turn the engine off and remove the key from the ignition.
3. If the engine was just running, wait for approx. 5 minutes before checking the oil level.

⚠ CAUTION

To avoid personal injury:

- Be sure to stop the engine before checking the oil level.



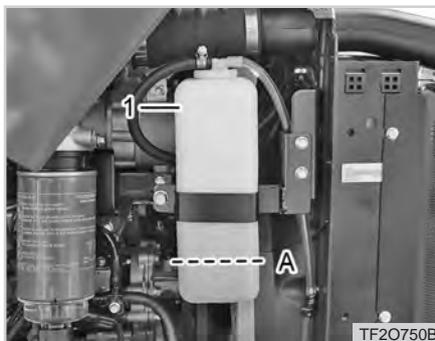
(1) Engine oil dipstick
(A) Upper limit (B) Lower limit

4. Pull out the oil dipstick, clean it, and then insert it into its original position. Then, pull it out again and check if the oil level is within the specified range.
5. If the oil level is too low, add some new oil so that the level is within the allowable range.

⊕ IMPORTANT

- **Never mix oil from 2 different manufacturers or different viscosities.**
- **Do not start the engine when the oil level is below the lower limit.**
- **Wipe the oil dipstick with a clean cloth or tissue. If foreign material enters the oil sump, it can lead to a malfunction of the engine.**
- **Never add oil over the upper limit.**

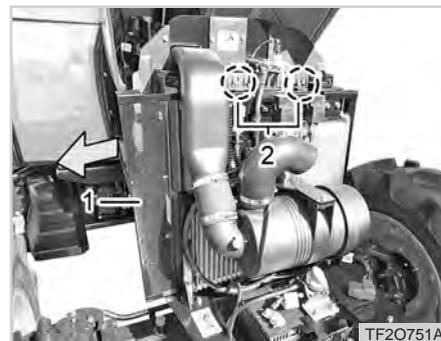
CHECKING COOLANT LEVEL



(1) Coolant reservoir tank
(A) Min (Lack)

1. Check to see that the coolant level is at the "MIN" or higher level in the reservoir tank.
2. When the coolant level drops in the reservoir tank, replenish with a 50:50 mix of water and ethylene glycol. Return the coolant level back to the "MIN" mark or higher.
3. The tractor is filled at the factory with a mixture of anti-freeze (ethylene glycol) and water in a ratio of 50 : 50 which is usable in any season.

CLEANING GRILL, RADIATOR SCREEN



(1) Radiator screen (2) Bolt

1. Check front grill and side screens to be sure they are clean of debris.
2. Loosen the bolts on the top of radiator.
3. Pull out the radiator screen and remove all the foreign materials.

 **CAUTION**

To avoid accidents :

- **Be sure to stop the engine before raising the hood for service or maintenance.**

 **IMPORTANT**

- **Bonnet Grill and screen must be clean from debris to prevent engine from overheating and to allow good air flow to the air cleaner, radiator and oil coolers.**

CHECKING BRAKE AND CLUTCH PEDALS

1. The brake and clutch pedals should be inspected for free travel, and smooth operation.
2. You should adjust these pedals if an incorrect measurement is found. (See the maintenance chart on page 8-25.)

 **NOTE**

- When depressing the brake pedals separated, both of the brake pedals should be moved down to the same depth.

CHECKING GAUGES, METER AND WARNING LAMPS

1. Inspect the instrument panel for broken gauge(s), meter(s) and WARNING LAMPS.
2. Replace if broken.

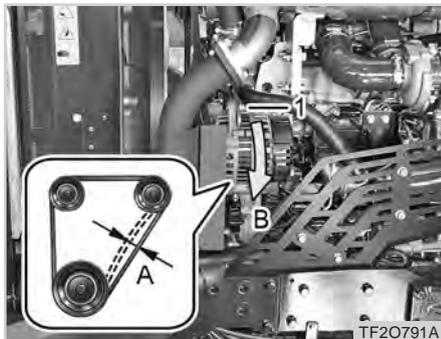
CHECKING LIGHTS

1. Inspect the lights for broken bulbs and lenses.
2. Replace if broken.

CHECKING SEAT BELT AND CABIN

1. Always check the condition of the seatbelt and attaching hardware before operating the tractor.
2. Replace if damaged.

ADJUSTING FAN BELT TENSION



(1) Adjusting bolt
(A) Adjusting belt tension

(B) Pull

In order to extend the fan belt lifetime, the tension of the belt should be correctly adjusted. The belt tension should be inspected regularly according to the following procedure:

1. Stop the engine and apply the parking brake.
2. Open the hood.
3. Apply moderate thumb pressure to the belt (A) between the crankshaft pulley and alternator pulley to check for tension.

Belt deflection for proper fan belt tension (A)

0.39 ~ 0.47 in. (10 ~12 mm)

4. If tension is incorrect, loosen the alternator mounting bolt and hinge bolt. Pull the alternator outward using a pry bar to reach the proper belt tension.
5. Be sure to retighten the alternator mounting bolt and hinge bolt securely after adjusting belt tension.
6. Replace the fan belt if it is damaged, cracked or worn.

CAUTION

To avoid personal injury:

- Be sure to stop the engine before checking belt tension.

REMOVING WATER FROM THE FUEL FILTER



(1) Fuel filter

(2) Drain plug

1. Water and dust in fuel are accumulated in the filter. Loosen the plug by hand from the bottom of the fuel filter to drain any impurities.
2. After draining, tighten the plug by hand. (Do not use a tool.)
3. Start the engine, and check for fuel leakage.



CHECKING WHEEL BOLT / NUT TORQUE



(1) Front wheel Bolt / Nut
(2) Rear wheel Bolt / Nut

⚠ CAUTION

To avoid personal injury :

- Never operate the tractor with a loose rim or wheel.
- Any time bolts and nuts are loosened, retighten to specified torque.
- Check all bolts and nuts frequently and keep them tight.

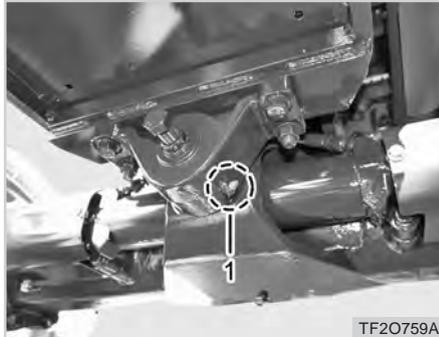
Check wheel bolts and nuts regularly especially when new. If they are loose, tighten them as follows.

Item		Tightening Torque
Front wheel	Bolt and Nut	145~166 ft-lbs (20~23 kgf·m)
Rear wheel	Bolt and Nut	271-318 ft-lbs (28 ~32.5 kgf·m)

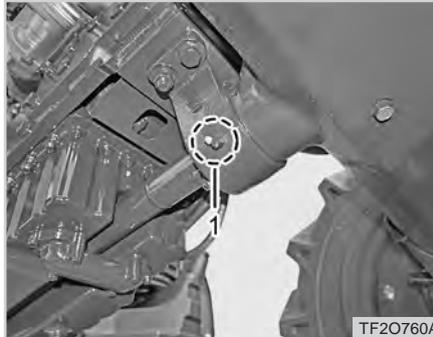


EVERY 50 HOURS LUBRICATION AND GREASE LOCATIONS

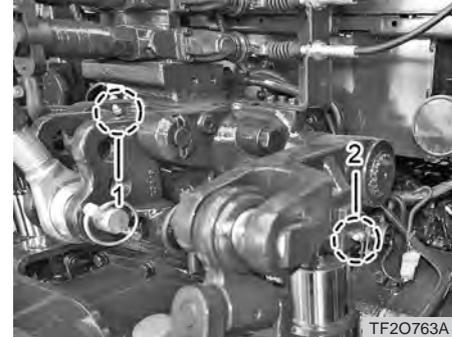
Apply a high quality, multi-purpose grease with molybdenum disulfide at each location every 50 hours of operation. In wet or dusty conditions, greasing more frequently may be required.



(1) Front axle support bracket (FRT)



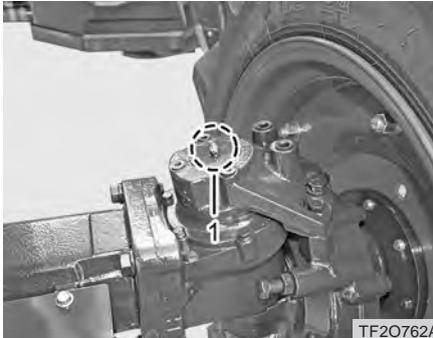
(1) Front axle support bracket (RR)



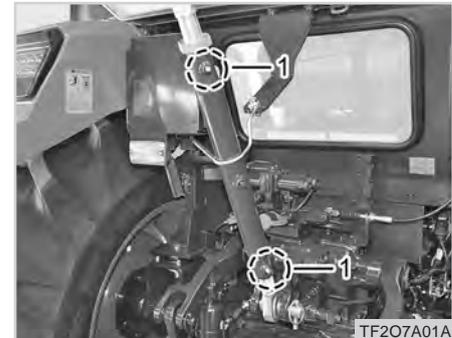
(1) Lift arm (RH) (2) Holder, top link



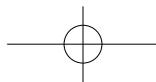
(1) Front axle case support (RH)

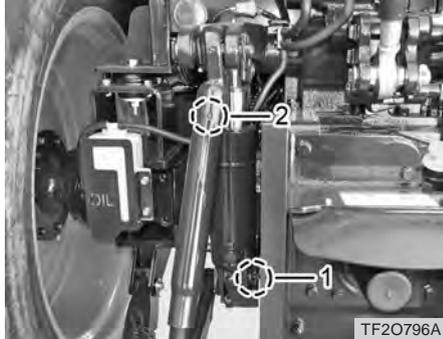


(1) Front axle case support (LH)

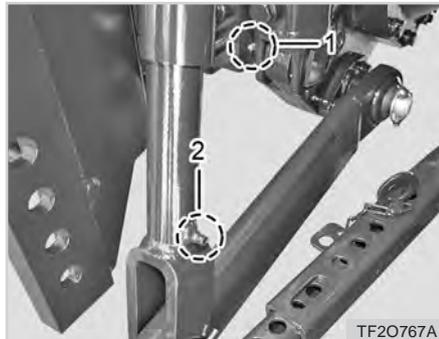


(1) Top link





(1) Lift cylinder (LH) (2) Lift rod

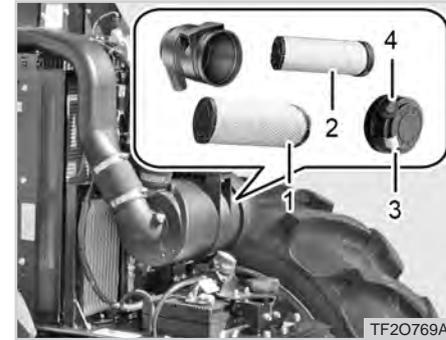


(1) Lift cylinder (RH) (2) Lift rod

⊕ IMPORTANT

- Lubricate each position every 10 hours of operation when working in damp or muddy conditions.
- Before applying grease, clean the area around the grease zerks thoroughly. Replace damaged or missing grease zerks immediately.

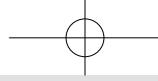
EVERY 100 HOURS CLEANING AND REPLACING AIR CLEANER FILTER



- (1) Primary element Filter (Standard)
 (2) Safety element filter (Option)
 (3) Dust cap (4) Evacuator valve

If the air cleaner is not maintained in a good condition, the lifetime of the engine can be shortened, excessive soot can be produced, and engine performance may be reduced. Therefore, the filter should be inspected frequently. Its replacement interval can be changed according to operating conditions. Replace the filter according to the following procedure :

1. Open the hood and inspect the air cleaner housing for damage.



2. Release the air cleaner retaining clips and remove the front cover.
3. Clean the inside of the air cleaner housing by wiping it gently with a clean, damp cloth.
4. Remove the filter element assembly and the filter assembly. Inspect the housing for damage and wipe with a clean, damp cloth. Install a new filter assembly and filter element assembly.
5. Install the front cover and secure in place with the retaining clips.

 **NOTE**

- When installing the cover, make sure that the dust collection valve is heading down.

 **CAUTION**

- **Use only Genuine KIOTI Filters. Use of aftermarket filters could cause performance issues or lead to engine damage.**

 **CAUTION**

- **Make sure that no dust enters the system by installing the cover securely after inspection, cleaning or filter replacement.**
- **When removing the filter, be careful not to let foreign material enter the air inlet.**
- **The mass air flow sensor is installed behind the air cleaner. DO NOT apply compressed air into the air cleaner housing while the filter assembly has been removed.**

EVACUATOR VALVE

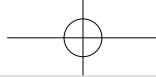
Open the evacuator valve once a week under ordinary conditions or daily when used in dusty conditions to get rid of large particles of dust and dirt.

CHECKING AIR CONDITIONER HOSES

Inspect the A/C hoses for signs of damage, abrasion and oily residue which may be a sign of a leak.

CHECKING CABIN ISOLATORS

Inspect the cabin isolators for signs of wear or damage.



CHECKING FUEL LINES



(1) Fuel hose

Although checking the fuel lines connections thoroughly is recommended every 100 hours, the lines should be inspected visually for signs of leaks or damage before each use.

1. If the hose clamps are loose, re-tighten as required.
2. The fuel lines are made of rubber and ages regardless of period of service. Change the fuel lines together with the hose clamps every two years and securely tighten.

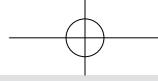
3. If the fuel lines and hose clamps are damaged or deteriorate in less than two years due to environmental conditions, replace as needed to prevent leaks and maintain proper engine performance.

WARNING

- ***NEVER perform a daily inspection or inspection to fuel system components while the engine is running.***
- ***The fuel lines are subject to wear and aging based on the environment and operating conditions. Failure to perform periodic inspections may lead to a fuel leak. Fuel leaking on a hot engine or exhaust components could lead to a fire resulting in potential damage to property or personal injury.***

IMPORTANT

- **When changing fuel pipes, be careful not to allow dust or dirt to enter the fuel system. Contaminations in the fuel system could damage the fuel system or injection pump. Pay extra caution to the fuel pump to prevent dust from entering it.**



BATTERY PRECAUTIONS FOR HANDLING



(1) Battery

It is important to inspect the battery periodically.

1. The battery cable should always be clean and firmly connected. When installing a new or used battery, clean the terminals and connections before connection.
2. Inspect the battery and cable for damage and corrosion.
3. Apply grease, terminal pads or protection spray to the terminals and cable end in order to prevent corrosion.

WARNING

- *Battery gases can explode. Do not expose the battery to flames or sparks. It may cause a fire.*
- *Battery fluid contains sulfuric acid that can burn you. Do not allow battery fluid to contact your eyes, skin, or painted surfaces. If you accidentally get it in your eyes or on your skin, flush with water and seek immediate medical attention.*
- *ALWAYS use proper PPE when handling batteries including safety goggles and gloves.*
- *Use only the battery with the specified voltage. Otherwise, it may cause a fire.*

CHARGING

Contact the battery dealer for proper charging instruction.

CAUTION

- The charge warning lamp comes on if the charging system is not producing sufficient voltage to maintain the battery charge. If it comes on while driving, have the system checked or repaired by your local Authorized KIOTI Dealer.
- Keep the battery fully charged to maintain optimal starting performance.
- In winter or extremely cold climates, keeping the battery fully charged is the best way to prevent battery freezing
- Do not attempt to start the tractor with a frozen battery. In the event the battery freezes, remove the battery from the tractor and place it in a warm location away from heat sources and wait for the battery to thaw before charging and re-installing in the tractor

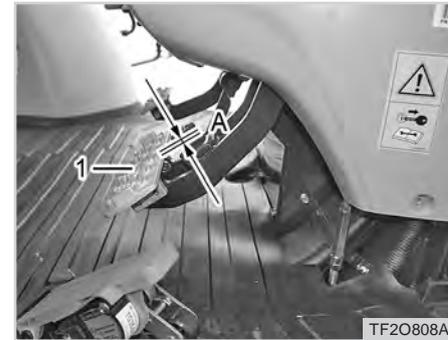
 **CAUTION**

- If the battery is not securely installed, the battery case and electrolytes could be damaged by vibration. To prevent the battery acid from contacting the terminals, apply grease around the battery terminals and connections.
- Never check the charge status of the battery by placing a metal object across the posts as this could cause the battery to explode, personal injury or sever electrical system damage.
- Only check the battery charge status with a volt meter or battery tester/charger designed to load and test the batteries condition.

DIRECTIONS FOR STORAGE

1. When storing the tractor for any period of time, turn the power switch to the off position. For an extended period of storage greater than 1 month, remove the battery from the tractor and store in a dry place away from heat sources and direct sunlight.
2. The battery self-discharges while it is stored.

Charge the battery once every 2 months while in storage for battery maintenance.

ADJUSTING BRAKE PEDALS

(1) Brake Pedal
(A) Free Play

Adjust the brake pedal free play periodically. Refer to the "Maintenance schedule chart" for checking interval. The brake pedal can be adjusted as follows:

1. Release the parking brake and unlock the pedal interlock.
2. Slightly depress the pedals by hand to measure the free play.



(1) Lock Nut

(2) Turn Buckle

Proper brake pedal free travel (A)	0.591 ~ 1.181 in. (15 ~ 30 mm)
	Keep the free play in the right and left brake pedals equal.

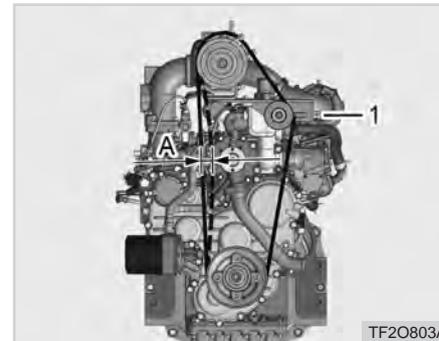
⚠ CAUTION

To avoid personal injury:

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

3. When adjustments are needed, loosen the locking nut and turn the turn buckle until the rod length is at the desired and acceptable limit.
4. Re-tighten the lock nuts.
5. Perform the same procedure for the left brake pedal to make both free play the same.
6. Interlock the brake pedals after checking or adjusting them.

ADJUSTING AIR CONDITIONER BELT TENSION



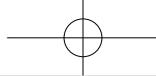
(1) Adjusting bolt

(A) Adjusting belt tension

1. Stop the engine and apply the parking brake.
2. Press the belt between the pulleys with force of 9.92 lbs. (4.5 kgf) and adjust the belt tension according to the below specification.

Tension of air conditioner belt (A)

When pressing the middle point of the belt : 0.39 in. (10 mm)



3. Replace the damaged belt.

CAUTION

- Stop the engine before checking air conditioner belt.

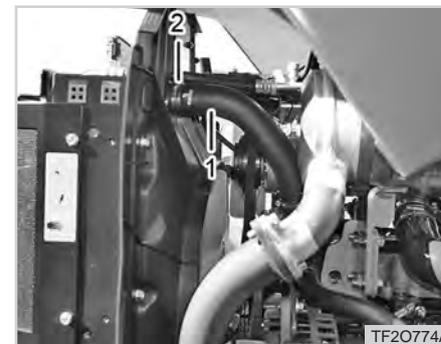
CHECKING ENGINE OIL FILTER

1. See pages 8-35

ADJUSTING FAN BELT TENSION

1. See pages 8-18

EVERY 200 HOURS CHECKING RADIATOR HOSE AND CLAMP

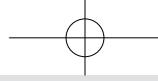


(1) Radiator hose

(2) Clamp

Check to ensure the radiator hoses are free from damage and are tightened properly every 200 hours or every 6 months, whichever comes first. It is also recommended to inspect visually for signs of leaks or damage before each use.

1. If the hose clamps are loose or water leaks from hose, tighten clamps securely.



2. If the radiator hoses are swollen, hardened, cracked, or otherwise damaged, you must replace the hoses. Failure to do so could lead to coolant loss and engine damage. NEVER attempt to perform an inspection or perform maintenance while the engine is running or if the cooling system is still hot, after operation. Always allow the cooling system sufficient time to cool down before initiating any type of maintenance or repair.

OVERHEATING PRECAUTIONS

Take the following actions in the event the coolant temperature reaches the boiling point, what is called "Over-heating".

1. Stop the machine in a safe place, place the transmission in neutral, apply the parking brake and lower any implements/attachments to the ground. Bring the engine to a high idle, approximately 1,200 RPM's.
2. Allow the engine to operate at a resting high idle for 5 minutes unless there are visible signs of rapid coolant loss. For rapid coolant loss, stop the engine immediately.
3. Wait 15 minutes after turning the engine off to allow the tractor to cool off. If there are no signs of steam, you may open the hood and perform a visual inspection. If steam is still exiting from underneath the hood, wait till there are no signs of steam before opening the hood.

4. Allow the system to cool to a safe temperature before attempting any repairs. Consult with your Local Authorized **KIOTI** Dealer for assistance as required. (Make sure to refer to "Engine troubleshooting" in chapter 8 before starting the engine)



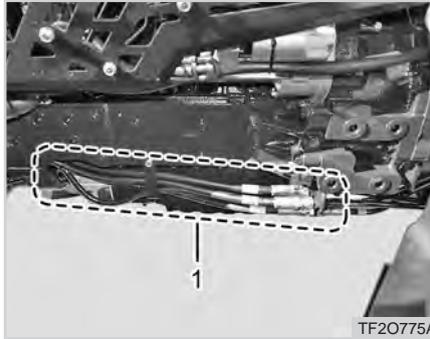
CHECKING INTAKE AIR LINE



(1) Air intake hose (2) Clamp

1. Inspect hoses, clamps and bands for signs of damage, deterioration and loose or missing hardware.
2. Tighten loose clamps. If the hoses and clamps are damaged, you must replace them at once. Failure to do so could lead to engine damage.

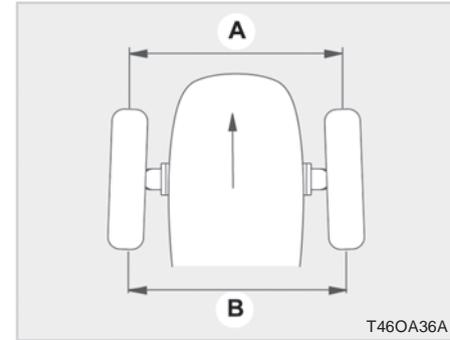
POWER STEERING LINE



(1) Power steering oil line

1. Visually inspect the steering lines for leaks and damage daily.
2. If damage is found you should replace the hose at once.

ADJUSTING TOE-IN ADJUSTING PROCEDURE

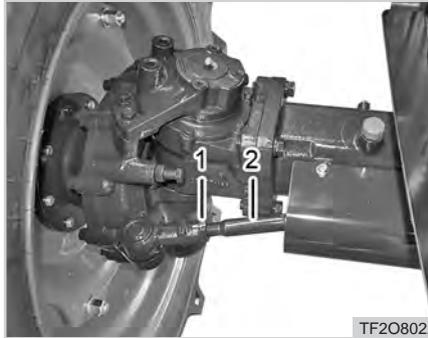


(A) Wheel - to - wheel distance at front
(B) Wheel - to - wheel distance at rear

1. Park tractor on a flat place
2. Turn steering wheel so front wheels are pointed straight ahead.
3. Lower the implement, implement/attachment to the ground, engage the parking brake, turn the engine off and remove the key from the ignition.

4. Measure the FRONT tread distance from the center of the left front tire to the center of the right front tire. This distance should be measure at the same height as the centerline of the front axle.
5. Measure the REAR tread distance from the center of the left front tire to the center of the right front tire. This distance should be measure at the same height as the centerline of the front axle.
6. Front distance should be 0.08~0.31 in. (2~8mm) less than rear distance. If not, adjust ball joint length

TOE-IN ADJUSTMENT

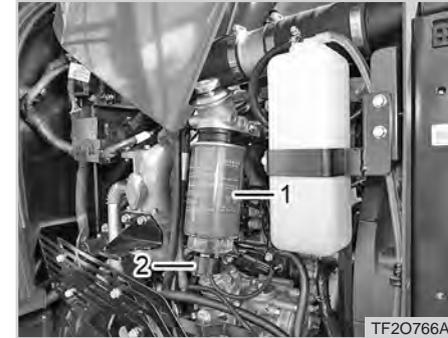


(1) Tie rod lock nut

(2) Tie rod

1. Loosen the lock nut and turn the turnbuckle to adjust the rod length until the proper toe-in measurement is obtained.
2. Check the toe-in value after the tie rod is adjusted.
3. Adjust it again if necessary.

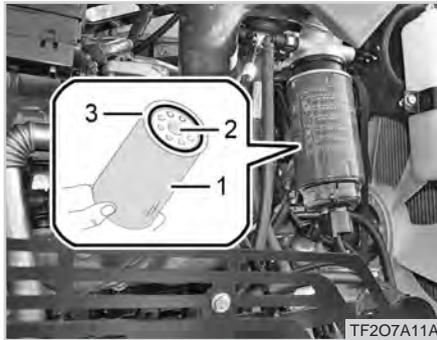
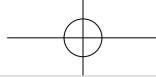
REPLACING FUEL FILTER



(1) Fuel filter

(2) Water separator

1. Thoroughly clean the outside surfaces of the fuel filter assembly.
Open the water separator at the bottom of the filter to drain the fuel. Collect the used fuel in a container for recycling or disposal.
2. Unplug the connector for the water separator. Using a strap wrench or filter wrench, loosen the water separator and remove it from the bottom of the fuel filter. Wipe with a clean cloth.

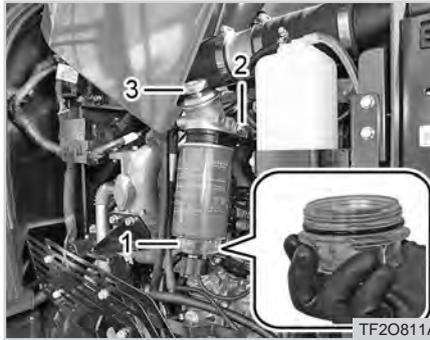


(1) Fuel filter (2) Thread
(3) O ring seal

3. Using a strap wrench or filter wrench, loosen the fuel filter and remove it from the filter base.

4. Lubricate the O-ring seal with fresh fuel. Install the filter onto the filter head and tighten firmly by hand.

Be sure to rotate the filter 1/8"-1/4" of a turn after the O-ring touches the filter base.



(1) Water separator (3) Priming pump
(2) Air bleeder bolt

5. Remove the O-ring seal installed on the water separator and install a new O-ring. At this time, the O-ring seal must be installed in the second groove from the bottom. Lubricate the new O-ring seal with fresh fuel.

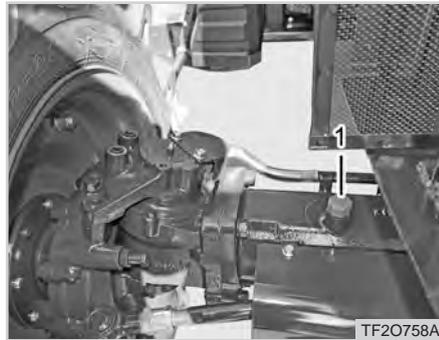
6. Re-install the water separator onto the fuel filter and tighten firmly by hand. Be sure to rotate the separator 1/8"-1/4" of a turn after the O-ring touches the fuel filter base.

7. After assembling the fuel filter, loosen the air bleeder bolt and operate the priming pump to bleed out the air.

CAUTION

- **Do not allow dirt to enter the fuel system. Before attempting any service or maintenance, clean the area around the fuel filter, fuel lines, etc. Do not leave the fuel system open or uncovered. Always use a clean cloth or paper towel to cover open fittings, lines, etc. to prevent dirt or debris from entering the system while repairs or maintenance are being performed.**

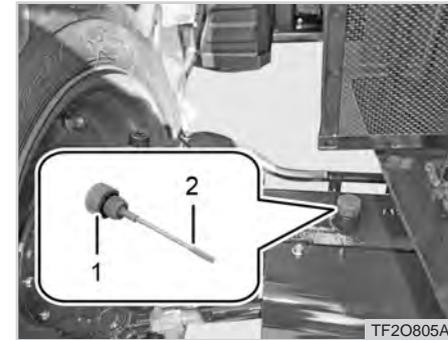
EVERY 400 HOURS CHANGING FRONT AXLE CASE OIL



(1) Oil filler plug

(2) Drain plug

1. To drain the differential, un-thread the oil fill/dipstick and remove the recessed allen head drain plug underneath the front axle 3rd member. Catch all used oil in a pan for recycling or disposal remove the right and left drain plugs and filling plug at the front axle case and drain the oil completely into the oil pan.
2. After draining, reinstall the drain plugs.
3. Add new oil to the specified level through the oil fill port.



(1) Oil level gauge

(2) Max

4. Check the fluid level with the dipstick. Add oil as necessary to bring the oil level to the fill mark on the dipstick.

NOTE

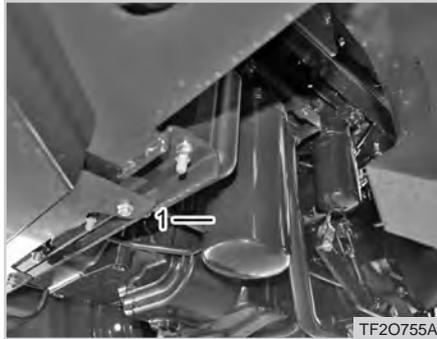
- To check the fluid level, with the dipstick threaded into the axle housing

Front Axle Oil Capacity

2.6 U.S.gal. (10 L)



REPLACING TRANSMISSION OIL AND HYDRAULIC FILTER



(1) Oil filter cartridge

The transmission oil should be changed if it is contaminated or every 800 hours of operation. When changing the transmission oil, be sure to change the transmission filters as well. The recommended service interval on the hydraulic filter is after the initial 50 hours of operation and every 400 hours afterwards.

NOTE

The filters are changed every 400 hours and 800 hours. The fluid is changed every 800 hours.



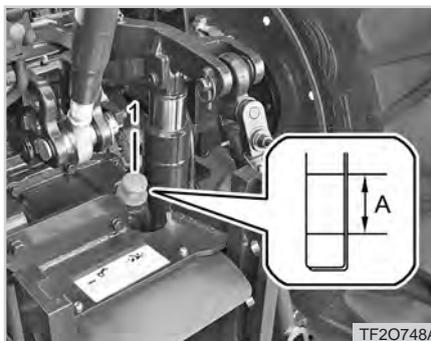
(1) Drain plug

1. Drive the tractor for approximately 10-15 minutes to allow the transmission oil to warm up.
2. Park on a level surface, place the transmission in neutral, lower any implements/attachments to the ground, apply the parking brake, turn the engine off and remove the key from the ignition.
3. To drain the used fluid, place an oil container under the transmission case and remove the drain plug to drain used fluid. If the fluid does not

flow out freely, unscrew the breather plug on the top of the hydraulic cylinder behind the top link bracket to facilitate drainage. (Ref to the next page)

Reinstall the drain plugs securely afterward.

4. Unscrew the fluid filter from the rear right section on the tractor using a filter wrench.



(1) Oil dipstick

(A) Oil level is acceptable within this range

5. Apply a thin film of clean oil onto the O-ring of the new filters and install. Tighten firmly by hand, 3/4 of a turn after the o-ring contacts the filter base.
6. Tighten the filter firmly by hand.
7. Run the engine for a few minutes and then stop it to check the leakage and fluid level. Add fluid to the specified level as needed.

Transmission Oil Capacity

11.75 U.S. gal. (44.5 L)

⚠ CAUTION

To avoid personal injury :

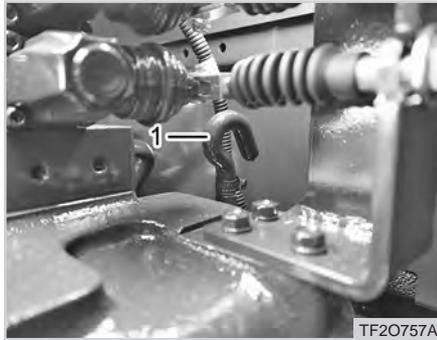
- Be sure to stop the engine before changing the fluid or replacing the filter.
- Cool down the fluid sufficiently. You can get burned by hot fluid.

⊕ IMPORTANT

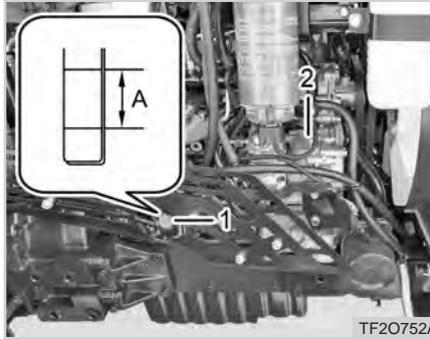
- To prevent serious damage to the hydraulic system, use only a Kioti genuine filter.
- Do not operate the tractor with heavy load right after changing the transmission oil. Run the engine at medium speed for a few minutes to prevent damage to the hydraulic system.



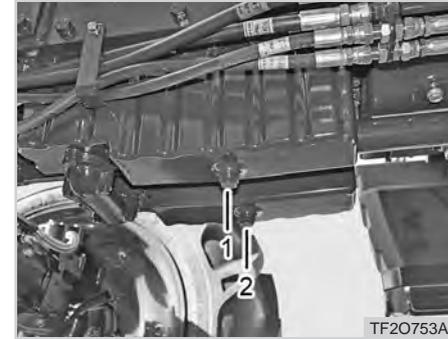
CHANGING ENGINE OIL AND REPLACING FILTER



(1) Air bleeding plug



(1) Oil dipstick
(2) Engine oil filler cap
(A) Oil level is acceptable within this range



(1) Drain plug(LH) (2) Drain plug(RH)

+ IMPORTANT

- **Before adding fluid, loosen the air bleeding plug that is located on the left side of the hydraulic cylinder. Otherwise, the fluid can overflow.**

1. Drive the tractor for approximately 10 minutes to allow the engine oil to warm up.

2. Park on a level surface, place the transmission in neutral, lower any implements/attachments to the ground, apply the parking brake, turn the engine off and remove the key from the ignition.

3. Remove the drain plugs from the oil pan and collect the used oil in a container for recycling or disposal.



(1) Engine oil filter

4. Remove the oil filter behind the cooling fan on the right side of the engine.
5. Apply a thin film of new oil to the filter o-ring. Install the new filter and tighten firmly by hand 3/4 of a turn after the o-ring contacts the filter base.
6. Re-install the drain plugs and tighten. Re-fill the engine with fresh oil. Bring the fluid level within the safe operating range indicated on the dipstick.

Engine Oil Capacity (Filter Included)

2.8 U.S.gal. (10.7 L)

7. Run the engine for approx. 5 minutes to inspect for leaks.
8. Engine oil pressure warning lamp should go off after 10 seconds of running. If the engine oil pressure warning lamp stays on, stop the engine.
9. After sitting for 5 minutes, check the fluid level and add as needed to bring up to the safe operating range as indicated on the dipstick.

NOTE

- The engine oil filter should be replaced when changing the engine oil.

WARNING

- *The engine oil is very hot while the engine is running or right after the engine is stopped. Use caution when removing the drain plugs to not encounter hot fluids.*
- *Always use proper PPE when performing maintenance. Avoid oil contact while changing or adding engine oil. Wear gloves to protect the hands and safety goggles to protect the eyes.*
- *Prolonged and repeated contact with the oil may cause skin disorders and skin cancer. If skin contact is made, wash thoroughly with soap or hand cleanser as soon as possible.*
- *Keep used oil out of reach of children.*
- *Only use engine oils meeting CJ-4 specification or higher to prevent damage to the emissions components.*



EVERY 500 HOURS REPLACING CABIN AIR FILTER

CAUTION

To avoid personal injury :

- Be sure to stop the engine before changing the oil or replacing the filter.
- Check the engine oil level daily. If the engine oil is insufficient, the engine can be damaged, and this is not covered by warranty. Be sure to add engine oil when its level is below the lower limit on the oil dipstick.
- Only dispose of used oil and filters in approved manners as approved by local regulations.

IMPORTANT

- Use only KIOTI genuine engine oil and filters to insure smooth operation and durability of the engine.



(1) Filter

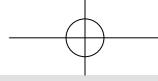
(2) Bolt

1. Remove the nuts from the filter cover over the left cabin door. Remove the cover and filter.
2. Clean or replace the filter as needed. To clean the element, use only clean dry compressed air, gently blowing across the element from the inside (cabin side) outward. Air pressure at the nozzle must not exceed 2 kgf/cm². Maintain reasonable distance between the nozzle and the filter.

3. Re-install the element and cover. Repeat for the opposite side of the cabin and the rear side of the cabin.

NOTE

- There are four (4) cabin filters in total, one (1) each on the left and right sides of the cabin and two (2) on the rear of the cabin.



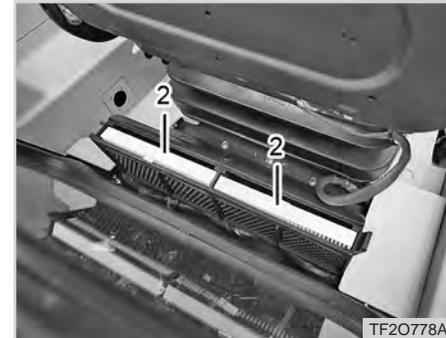
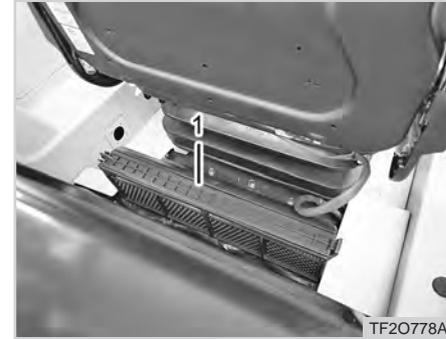
EVERY 800 HOURS ADJUSTING ENGINE VALVE CLEARANCE

This service can have an adverse affect on engine performance and longevity if performed incorrectly. Please consult with your Local Authorized **KIOTI** Dealer to perform this maintenance.

EVERY 1 YEARS REPLACING ENGINE OIL AND FILTER

1. See pages 8-35

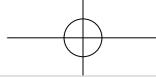
CHANGING AIR-CON FILTER [CABIN]



REPLACING TRANSMISSION OIL

1. See pages 8-33.

- (1) Air cleaner filter cover
- (2) Airconditioner filter



EVERY 2 YEARS FLUSHING COOLING SYSTEM AND CHANGING COOLANT

1. Open the air cleaner cover.
2. Remove both of RH and LH air conditioner filters.
3. Put the new filters in the air cleaner instead of old ones and close the air cleaner cover.

NOTE

- Be sure to replace both filters at the same time.

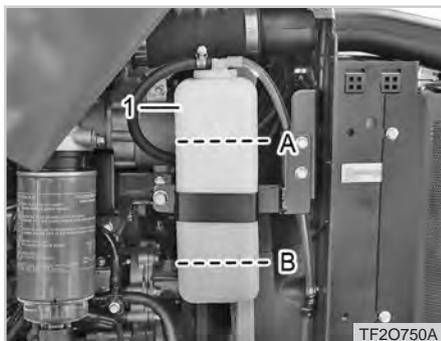


(1) Drain petcock

the radiator cap. The radiator cap must be removed to allow the system to breathe to drain all of the coolant from the radiator. Collect all used coolant in a container for recycling or disposal.

3. After all coolant is drained, close the drain petcock.
4. Fill the radiator with a 50:50 mix of fresh water and ethylene glycol.

1. Park on a level surface, place the transmission in neutral, lower any implements/attachments to the ground, apply the parking brake, turn the engine off and remove the key from the ignition. Allow the radiator and engine to cool before performing any repairs or maintenance.
2. To drain the coolant, open the radiator drain petcock and remove



(1) Reservoir tank
(A) Max (B) Min (Lack)

6. After filling the radiator, fill the reservoir with a 50:50 mix of fresh water and ethylene glycol to the "MIN" mark or higher. DO NOT OVER-FILL.
7. Start and operate the engine for 10-15 minutes with the heater turned on to help purge any air from the system.
8. Stop the engine and let it cool.
9. Check coolant level of reservoir tank and radiator. Add coolant if necessary.

Coolant capacity [U.S.gal. (L)]

2.51 (9.5)

⚠ CAUTION

To avoid accidents :

- Do not remove the radiator cap while the coolant is hot. You can get burnt by hot steam. Only remove the radiator cap if it is warm or cool to the touch. NEVER remove if HOT.
- Even though the coolant is cooled down, turn the cap to its first stop and then wait until it is depressurized before removing the cap completely.

⊕ IMPORTANT

- Do not start engine without coolant.
- Use clean, fresh water and anti-freeze to fill the radiator and reservoir tank.
- When the anti-freeze is mixed with water, the anti-freeze mixing ratio must be no less than 50% mixture of water and anti-freeze.
- Securely tighten radiator cap.
- If the cap is loose or improperly fitted, water may leak out and the engine could overheat.
- If the radiator cap has to be removed, follow the caution above and securely retighten the cap.
- If coolant leaks from the radiator or engine, contact your Local Authorized KIOTI Dealer for assistance.



ANTIFREEZE

This tractor is factory filled with a 50:50 mixture of ethylene glycol (pink color) and water.

If the antifreeze has been replaced by water at any time, the coolant can freeze when temperatures drop below 0°C leading to damage to the engine block and radiator.

Be sure to drain and refill any system that utilizing water with a ratio of water and ethylene glycol before cooler seasons arrive.

When mixing brands or types of antifreeze, flush the cooling system several times before adding the final fill of ethylene glycol and water.

Vol. % Antifreeze	Freezing Point		Boiling Point	
	°F	°C	°F	°C
40	-12	-24	222	106
50	-34	-37	226	108

* At 760 mmHg (atmospheric pressure), a higher boiling point is achieved through the pressurization of the cooling system.

NOTE

- The temperatures shown on the left are industry standards that necessitate a minimum glycol content in the concentrated anti-freeze.
- When the coolant level drops due to evaporation, add water only. In case of leakage, add anti-freeze and water in the specified mixing ratio.
- Antifreeze absorbs moisture. Keep unused antifreeze in a tightly container and dispose of it properly based on local regulations.
- Do not use radiator cleaning agents when antifreeze has been added to the cooling water. (Antifreeze contains an anti-corrosive agent, which will react with the radiator cleaning agent forming sludge which may affect engine components and the cooling system's efficiency leading to engine damage.

SERVICE AS REQUIRED CHECK AND CLEAN CAB AIR INTAKE FILTER

Check and clean the cabin air filters every 100 hours or more frequently when operating in extremely dusty environments. Keep the air filter clean for efficient operation of the heating and cooling system. Replace with genuine parts if damaged or when the filter cannot be cleaned.

 **WARNING**

- *The filtration system on this tractor cab has no protection against harmful chemicals, aerosols or other airborne agents. The filtration system collects dust and large particles as air enters the cabin through the four (4) intake locations.*
- *If the tractor is being used to spray chemicals, aerosols or other airborne agents that may be harmful to humans, the filtration system will not provide any protection to the operator. To prevent inhalation of harmful agents, the operator will need to source and wear PPE recommended by the chemical manufacturer including masks designed and manufactured to protect against the airborne agents being sprayed.*

 **WARNING**

- *Cab air filters remove dust in the air, but are not capable of removing chemicals used in spraying crops or in weed control. Many chemicals used for these purposes are toxic when improperly used, and can be hazardous to operators and others in the area.*
- *Follow the instructions of the chemical manufacturers and spray application equipment regarding required PPE, prohibitions prohibitions against inhalation of dust or spray, personal hygiene practices, and other precautions noted by the manufacturers.*

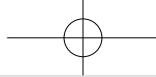
 **IMPORTANT**

- **Always wear protective clothing, e.g.: overalls, goggles, gloves and face mask when preparing equipment for chemical spraying operations and ALWAYS follow the chemical manufacturers instructions regarding PPE and safe handling procedures of any products used.**

Cabin air filters should be checked weekly or daily if used in extreme conditions. The standard paper element has the following efficiency with a maximum differential pressure increase of 2 mbar. SAE gross gauze mesh 99.5%.

 **NOTE**

- This element provides no protection against harmful chemicals, aerosols or other airborne agents.

 **CAUTION**

- The Manufacturer has no responsibility what so ever, either direct or indirect, for the design, manufacture and availability of special filters and/or changes to the air intake or filtration system of the cab for spraying, mining or other applications outside of it's intended purpose.
- This cab HVAC system has been designed and tested for optimal performance in agricultural settings. Altering or modifying the cab in any way for spraying, mining or other applications outside of it's intended purpose can significantly alter the performance pf the HVAC system and have a significant impact on operator health.
- Always wear individual protections when working in particularly dusty environment.

 **NOTE**

- Use Genuine **KIOTI** filters to maintain peak heating and air conditioning performance.

 **IMPORTANT**

- Dispose of filters correctly in accordance with local regulations. Be responsible for the environment.

 **WARNING**

- *Remember that the cab filter is not suitable for chemicals in general. Absolute protection against these products can therefore only be achieved by taking the precautionary measures required by the degree of harmfulness of the actual products used.*
- *This latter precaution must be strictly observed for filters of any type.*
- *Remove the cabin air filters and cover the air intake ports with tape or other product before washing the cab. If the cab is washed and the filters are not removed, use caution to not spray water onto the filters or the filter covers to prevent damage and deterioration of the cabin filters.*

⚠ WARNING

- *If spraying, spreading or projecting any chemical, agent or aerosol into the air, always follow the component manufacturer's recommendations for proper PPE required for handling and breathing those components. Be sure to utilize the recommended PPE even when inside the tractor cabin as the cab filtration system will not provide any protection against airborne chemicals, agents or aerosols of any kind.*

CHECKING AND REPLACING WIPER INSPECTION AND ARM REMOVAL [CABIN]

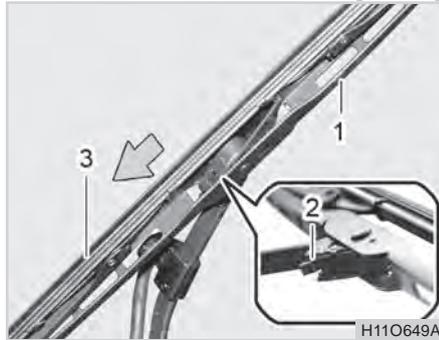


(1) Wiper

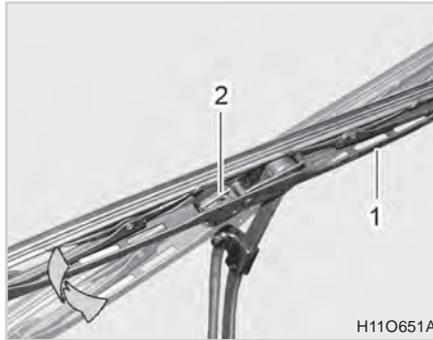
Re-install in the reverse order. Be sure to align the wiper arm in the same position as it was removed so it does not touch any portion of the metal windshield frame during operation.

Check the operation and wear of the wiper blades frequently.

To remove the wiper arm, raise the cap at the base of the arm and remove the securing nut. Disconnect the washer fluid line from the wiper arm. Gently wiggle the arm left and right while pulling to slide the arm off the splined shaft. Once off, the blade can be replaced or a new arm with blade installed.

**WIPER BLADE REPLACEMENT [CABIN]**

(1) Wiper arm (2) Attaching lever
(3) Wiper blade



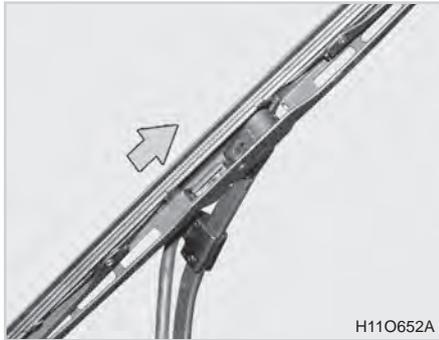
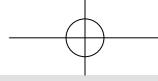
(1) Wiper blade (2) Locking tab

1. Pull the wiper arm away from the windshield and allow it to rest at 90 degrees.
2. Rotate the wiper blade and locate the locking tab (item 2). Depress the locking tab and slide the wiper blade off the arm.

3. Align the new wiper blade with the wiper arm. Be sure to position the blade so the locking tab will slide into the u-shaped portion of the wiper arm. Be sure the wiper blade is positioned so the rubber edge will contact the windshield when lowered into position.

CAUTION

- When the wiper blade is separated, the wiper arm should not be placed against the glass as it could scratch or severely damage the glass.



- Slide the wiper blade into the u shape of the wiper arm. When connected, a "clicking" sound is heard. Gently push/pull the wiper blade to make sure it is securely fastened to the wiper arm.
- Lower the wiper arm against the windshield.

 **CAUTION**

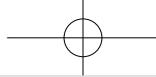
- When cleaning the windshield, pull the wiper arm away from the windshield and allow it to rest at 90 degrees. Spray water or cleaner on the glass and wipe with a clean cloth.
- If the wiper blade is frozen to the glass in cold weather or there is washer fluid, do not operate the windshield wiper.
- In order to prevent damage to the wiper blade, never use **synthetic detergent, thinner or solvent on the windshield.**

REPLACING FUSE BODY FUSE BOX



(1) Fuse box cover

Fuses protect the tractor electrical system from potential damage. A blown fuse indicates that there is an overload or short somewhere in the electrical system.



(1) Fuse box

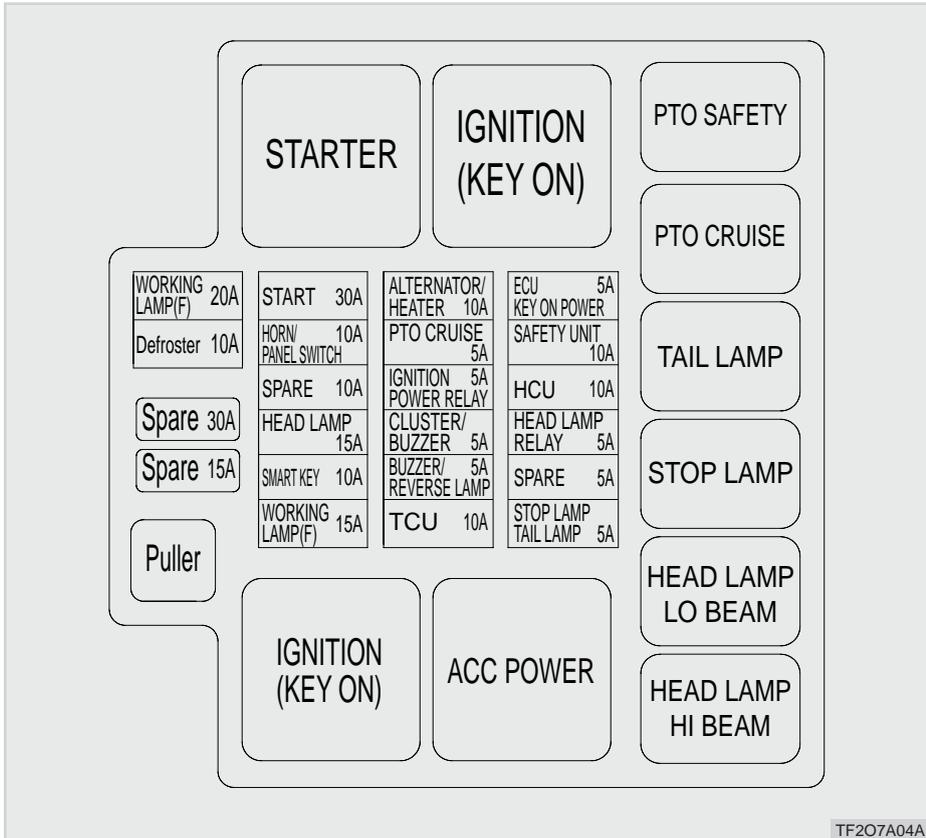
(2) Fuse

The fuse box is located on the right side of inside cabin.

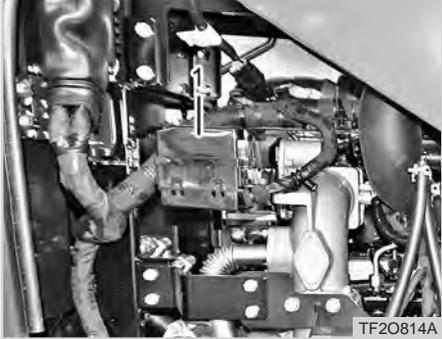


(1) Fuse box

The fuse box is located on the left rear side of the seat.

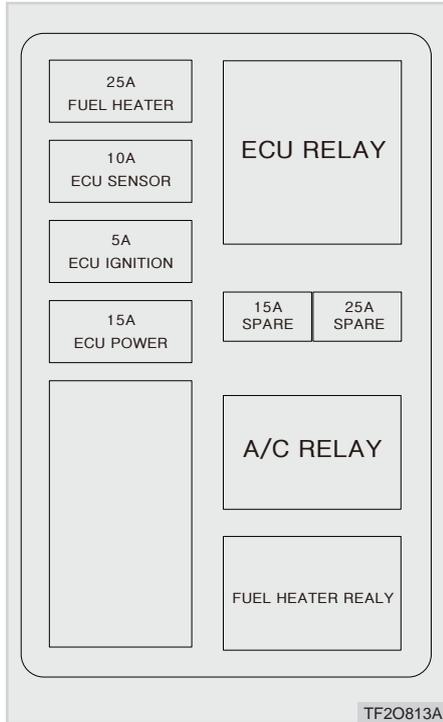
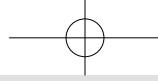


ENGINE FUSE BOX [ROPS]



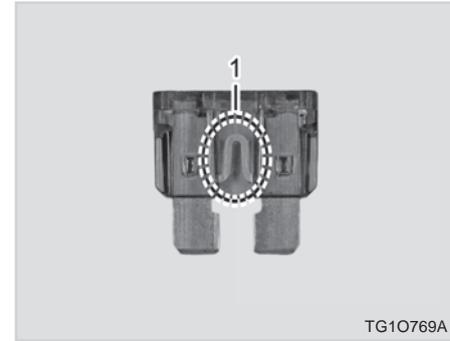
(1) Fuse box cover

Fuses protect the tractor electrical system from potential damage. A blown fuse indicates that there is an overload or short somewhere in the electrical system.

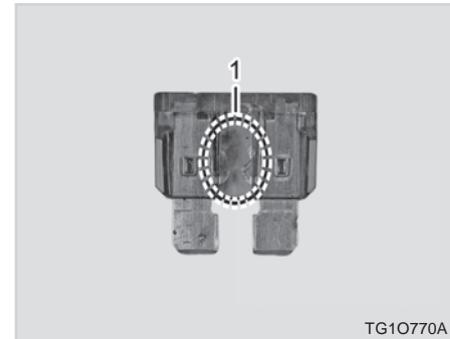


The fuse box lid includes a diagram on the inside with relay and fuse rating and location. Remove and replace relays and fuses according to the instructions below.

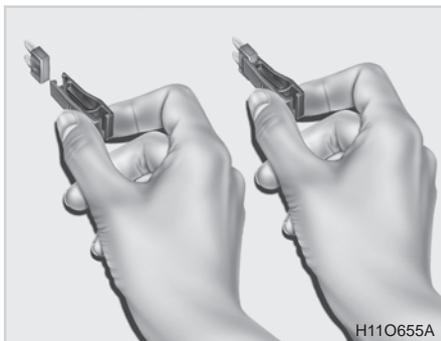
1. Park the tractor on a level surface, place the transmission in neutral, apply the parking brake, lower implements/attachments to the ground, turn the engine off and remove the key from the ignition.
2. Turn the battery switch to the "OFF" position, remove the fuse box cover and remove the fuse box lid. Using the diagram in the lid, locate the relay or fuse in question. Relays can be removed and replaced by hand as required. To remove and install fuses, use the fuse pullers included in the fuse box to grip and secure fuses for removal and installation.



(1) Normal fuse



(1) Blown fuse



3. If the fuse is blown, replace it with a new fuse with same capacity. Make sure it is firmly installed.
4. Install the fuse box lid and install the fuse box cover.

⚠ WARNING

- *Never use a fuse with capacity higher than specified on the label included inside the fuse box lid.*
- *Use of higher amperage fuses, steel wire, foil or other unapproved modifications could cause severe damage to the electrical system and components or cause the system to overheat and catch fire.*

📖 NOTE

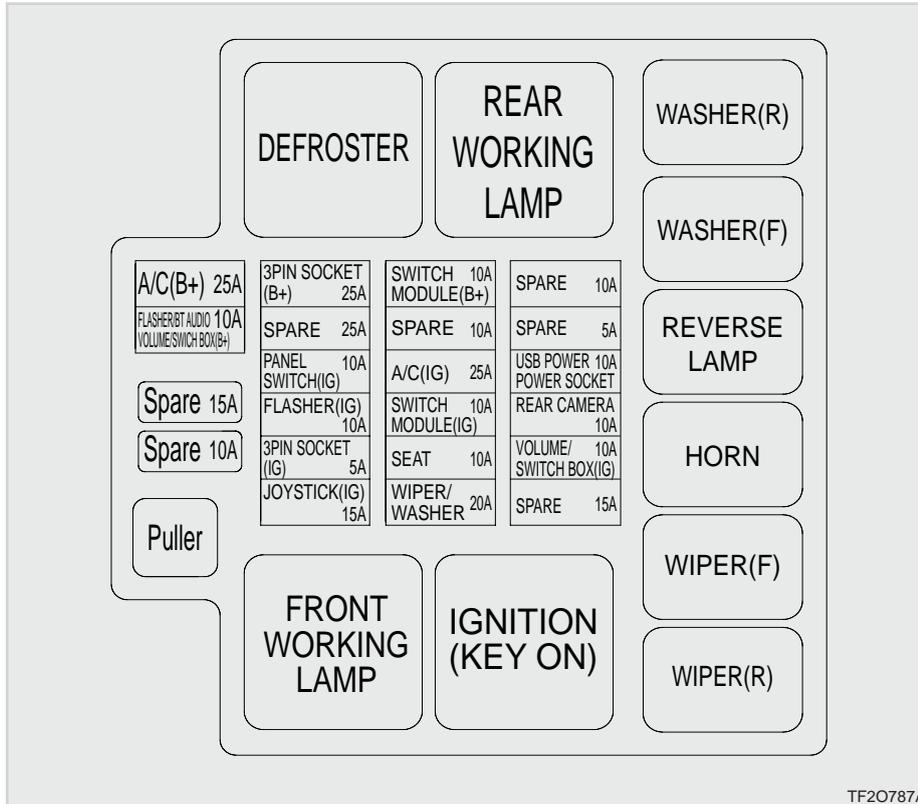
- If a replacement fuse blows quickly, there is a high probability the electrical circuit is overloaded or has a potential short. Contact your Local Authorized **KIOTI** Dealer for assistance.
- If a fusible link, relay or other electrical component is fails, contact you Local Authorized **KIOTI** Dealer for assistance.

REPLACING CABIN FUSE



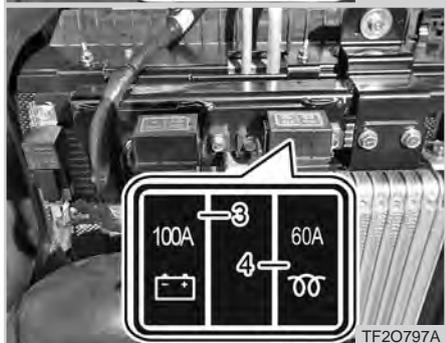
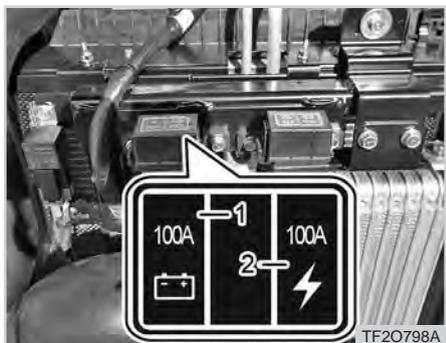
(1) Fuse box 1

The fuse box inside the cabin are located behind the driver's seat and protects the majority of the electrical components inside the cabin. For removal and replacement, follow the instructions provided on pages 8-46 through 8-50.



TF20787A

MAIN FUSE



(1) Main Power Fuse (3) Main Power Fuse
(2) Charge Power Fuse (4) Preheat Power Fuse

The main fuse is designed to withstand heavy loads yet protect the electrical system when an overload occurs. If you find a blown main fuse, replace it with a new, genuine **KIOTI** part and review the electrical circuit for issues.

Main Fuse
60, 100A

⊕ IMPORTANT

- **Not all fuses are manufactured equally. Using a non-KIOTI main fuse could lead to electrical system damage in the event a short or overload situation occur.**
- **Refer to the chapter "Troubleshooting" in this manual or contact your Local Authorized KIOTI Dealer for assistance in diagnosing and repairing electrical system issues.**

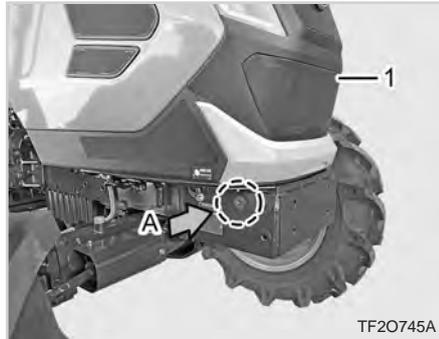
REPLACING LIGHT BULBS

The bulb capacities used in this tractor are listed in the table below.

No.	Bulb	Capacity
1	Head lamp	18W LED
2	Rear lamp	6.5W LED
3	Brake lamp	8.4W LED
4	Turn signal lamp (Front)	5.1W LED
5	Turn signal lamp (Rear)	1.9W LED
6	Beacon lamp (Front)	5.1W LED
7	Beacon lamp (Rear)	1.9W LED
8	Tail lamp	2.0W LED
9	Working lamp (Front)	21W LED
10	Working lamp (Rear)	21W LED
11	Side lamp	26W LED

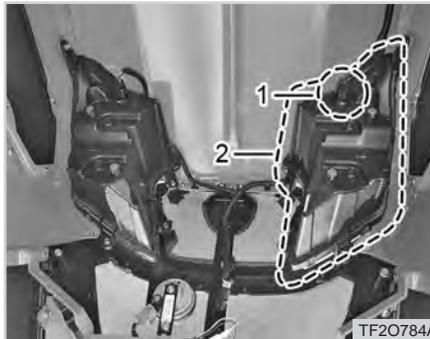


HEADLAMP



(1) Handle
(A) Push

1. Park the tractor on a level surface, place the transmission in neutral, apply the parking brake, lower implements/attachments to the ground, turn the key off and remove the key from the ignition. It is also recommended to turn the battery switch to the off position before performing any repairs to the electrical system.



(1) Connector (2) LED Lamp assembly

2. Disconnect the wiring harness connector.
3. Remove the mounting nuts and gently slide the LED lamp assembly out of the hood.
4. Install in reverse order.

CAUTION

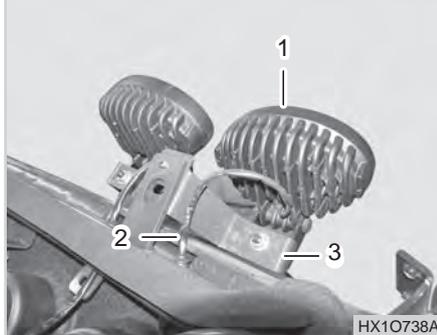
- **The headlamps can temporarily be fogged due to rain or car wash. This is because of the temperature difference between the inside and outside of the lamp, which is normal.**

WORK LAMP (FRT/REAR)

Depending on model, the unit may be outfitted with halogen, LED or a combination of halogen and LED work lights. Follow the recommended guidelines based on the type of work light below.

The LED lamps are designed to enhance the visibility during work. For the LED work lamps, when they need replacement, replace the whole assembly.

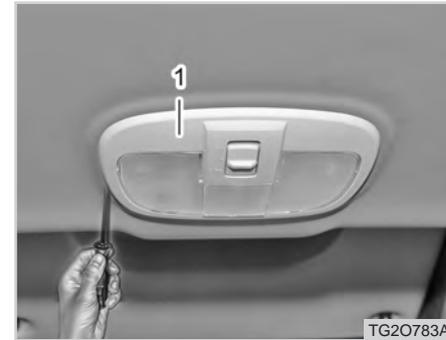
REPLACING THE LED WORK LAMPS [CABIN]



(1) LED work lamp (2) Wiring
(3) Work lamp mounting bracket

1. Turn the key switch "OFF," and remove the LED work lamp assembly from the work lamp mounting bracket.
2. Disconnect the connector and replace it with a new LED work lamp.

ROOM LAMP



(1) Room lamp

1. Using a small, flat screwdriver, gently pry the room lamp downward.



(1) Room lamp bulb

2. Remove the room lamp bulb up and disconnecting it from the holder. Install a new lamp and assemble in reverse order. Install a new bulb.

! CAUTION

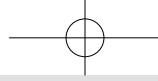
- **Do not touch the bulb if it is still illuminated or right after it is turned off. You can be burnt by a hot bulb.**

! CAUTION

- For some bulbs which require delicate handling seek assistance from your Local Authorized KIOTI Dealer.
- Do not touch the glass part of a halogen bulb. The bulb life can be shortened by finger prints, dust and moisture, or the bulb even can be broken. Clean it with a soft, dry cloth.
- Halogen bulbs contain compressed gas and can explode if dropped or scratched.
- When separating a cover by prying it off with a screwdriver, be careful not to damage the cover or mounting surfaces.

! CAUTION

- Before replacing a bulb, park the tractor on a level surface, place the transmission in neutral, apply the parking brake, lower implements/attachments to the ground, turn the key off and remove the key from the ignition. It is also recommended to turn the battery switch to the off position before performing any repairs to the electrical system.
- Install a new bulb with the same capacity after removing the original bulb.



CHECKING THE REFRIGERANT

Insufficient refrigerant adversely affects the A/C performance. Excessive refrigerant can also impact the A/C systems performance and damage components in the circuit.

If the operation of the A/C system seems inadequate or the system will not function, contact your Local Authorized **KIOTI** Dealer for assistance.

CAUTION

- **Park the tractor on a level surface, place the transmission in neutral, apply the parking brake, lower implements/attachments to the ground, turn the key off and remove the key from the ignition before performing any inspections or maintenance to the A/C system.**

WARNING

- ***To prevent injury from escaping high pressure fluids, only have an Authorized KIOTI Dealer or a certified HVAC technician perform any repairs to the HVAC system.***

1. Operate the A/C as follows:

- Engine rpm: Approx. 1,500 rpm
- Temperature control switch: Maximum cooling
- Blower speed control dial: Level 4
- A/C switch: ON

NOTE

- **SYSTEM PRESSURE CHECKS** (performed by certified HVAC technicians or Authorized **KIOTI** Dealer only)



STORAGE AND DISPOSAL

TRACTOR STORAGE 9-2
 DAILY STORAGE.....9-2
 LONG-TERM STORAGE.....9-2

USING TRACTOR AFTER STORAGE 9-4

USAGE AND FLUIDS DISPOSAL 9-5

9

9



TRACTOR STORAGE DAILY STORAGE

1. Before putting your tractor and equipment away after a hard days work clean the radiator and engine areas with compressed air or other methods to remove dust and debris. If possible, blowing dust off the entire machine or gently rinsing with a hose makes daily inspections for leaks and loose hardware quick and easy.
2. Whenever possible, store the tractor under cover.

WARNING

- *When operating the tractor in an enclosed area, ventilate the area to release exhaust gases to the outside. Exhaust gases are colorless and mostly odorless but can be extremely harmful and even cause death if exposed for long periods of time.*

3. Remove weights from the tractor. Disconnect any implements mounted to the three-point hitch.
4. Check the cooling system as winter approaches to be sure the anti-freeze mixture is sufficient to prevent freezing in your area.
5. Turn the battery switch to the "off" position after exiting the tractor. Always remove the ignition key and store it separately from the tractor.

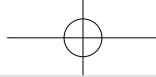
LONG-TERM STORAGE

Follow the instructions below if the tractor is not to be used for a long period of time (greater than 2 months between uses). This is to operate the tractor again with minimum preparation after long-term storage. Repeat this procedure if the tractor hasn't been used for one year.

IMPORTANT

- **If the tractor is not used for an extended period of time, follow the instructions below to prevent corrosion and performance deterioration of the tractor while it is stored.**

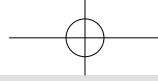
1. Inspect for loose or missing hardware. Tighten or replace as necessary.
2. Grease all zerks on the tractor. Apply a light grease film on areas where bare metal is exposed and will rust.
3. Detach the weights from the tractor body.



4. Inflate the tires to a maximum pressure. When parked on dirt, it is recommended to park the tractor on 1"-2" thick blocks to raise the tires off the ground slightly to minimize deterioration from moisture changes in the soil.
5. Change the engine oil and filter and the engine to circulate oil throughout the engine for 10 minutes before placing in storage.
6. With all attachments lowered to the ground, coat any exposed areas like loader cylinder rods, 3-point lift cylinder rods with a light film of grease.
7. Remove the battery from the tractor. Store the battery following the battery storage procedures on page 8-26.
8. Keep the tractor in a dry place where the tractor is sheltered from rain. If stored outside cover the tractor if possible.
9. Clean the engine area and remove dust, debris and items that pests or rodents may utilize for nesting. Wash the tractor if possible to remove all dust, fluids, etc from the outside of the machine.
10. Add grease to all the grease fitting.
11. Flush the cooling system and drain water from it. Refill with a 50:50 solution of fresh water and ethylene glycol or a stronger solution of glycol if the ambient temperatures require a lower freeze point.
12. When possible, store the tractor on stands (adequately sized for the weight of the tractor) to remove any weight from the tires.
13. Set all control neutral and apply the parking brake.
14. Cover the exhaust pipe or any open tubes to prevent pests or rodents from trying to nest in these areas.
15. Treat the fuel with an additive to increase cetane rating and aide with moisture intrusion. Fill the fuel tank to full. Also fill the DEF tank to full.
16. Attach a tag to the tractor to confirm the storage condition, date, hours on the unit, etc.
17. Interlock the brake pedals and apply the parking brake.
18. Remove the battery from the tractor in winter and store it indoors.

 **NOTE**

Keeping the fuel and DEF tanks full will help prevent condensation build-up in the tanks during storage.



USING TRACTOR AFTER STORAGE

CAUTION

To avoid injury :

- **NEVER perform any repairs, maintenance or attempt to clean the tractor 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.**
- **Cover the tractor after the muffler and the engine have cooled down.**
- **If the battery is not removed as part of the storage process, turn the battery switch to "off" and disconnect both the positive and negative terminals from the battery.**

1. Check the tire air pressure and inflate the tires if they are low.
2. Install a fully charged battery.
3. Check the fan belt tension.
4. Check all fluid levels. (Engine oil, transmission/hydraulic oil, engine coolant, front axle fluid and fluids for any implements or attachments connected to the tractor.)
5. Remove grease from the exposed cylinder rods and other areas applied to prevent corrosion and rust build-up.
6. Apply grease to the lubrication points.
7. Remove the cover from the exhaust pipe and any other areas covers may have been applied.
Raise the hood and inspect the engine area for debris, rodent nesting, cut or damaged electrical wires due to rodents or pests.
8. Get onto the tractor and start the engine. Allow the engine to idle for 3-5 minutes before operating any portion of the tractor.
9. Check the instrument panel for any warning lights or indicators that do not go out after the engine is started. After operating the engine for 3-5 minutes, begin operating the 3-point hitch, clutch, brakes, etc. while the tractor is in neutral. Cycle each system a minimum of 5 times to move fluids through each circuit.
10. Drive the tractor outside in an open area for 5-10 minutes. Shift through all gears in low range and medium range while increasing engine speed to around 1,500 RPM's. Engage the PTO (with no implement attached) and operate for 3-5 minutes while driving the tractor.
Stop the tractor on a flat, level surface and disengage the PTO. Place the transmission in neutral, apply the parking brake, lower any



USAGE AND FLUIDS DISPOSAL

implements or attachments to the ground, turn the engine off and remove the key from the ignition.

Walk around the tractor again and inspect for loose or missing hardware. Raise the hood and inspect for leaks, loose clamps, or anything that may require maintenance. After sitting for 5 minutes, re-check all fluids again. Top off as necessary.

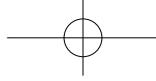
11. Start the engine, release the parking brake, and check the brake condition while driving forward. Adjust the brake pedals if necessary.
12. Operate the tractor for another 15 minutes.

Stop the tractor on a flat, level surface and disengage the PTO. Place the transmission in neutral, apply the parking brake, lower any implements or attachments to the ground, turn the engine off and remove the key from the ignition.

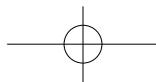
Walk around the tractor again and inspect for loose or missing hardware. Raise the hood and inspect for leaks, loose clamps, or anything that may require maintenance. After sitting for 5 minutes, re-check all fluids again. Top off as necessary.

In order to protect the environment, dispose of all fluids and parts by following all local regulations for disposal, recycling, etc. :

1. When changing the oil or coolant by yourself, be careful not to spill it and dispose or recycle used oil or coolant through available resources that meet Federal, state/provincial and local regulations.



MEMO





TROUBLESHOOTING

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TRACTOR TROUBLESHOOTING..... 10-4
ENGINE ERROR CODES..... 10-7

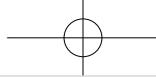
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10

This troubleshooting chart summarizes simple service items for users who are familiar with mechanical systems. For more detailed service items, contact your Local Authorized **KIOTI** Dealer.

ENGINE TROUBLESHOOTING

CAUSE	COUNTERMEASURES
1. Difficulty starting engine	<ul style="list-style-type: none"> • Fuel filter is clogged or gelled.
	<ul style="list-style-type: none"> • Check the fuel tank and fuel filter for leaks, damage hoses, loose clamps, etc. • Drain water from the filter, look for signs of waxing/gelling in cold weather. • As all fuel will be filtered by the filter, if there should be water of other foreign matters on the filter, replace the filter.
	<ul style="list-style-type: none"> • Air or water mixed in fuel system.
	<ul style="list-style-type: none"> • If air is in the fuel filter or injection lines, the fuel pump will not work properly. • Inspect all fuel lines for damage, loose or missing hardware, signs of leakage, etc. • Loosen air vent screw over fuel filter and cycle the hand pump on the filter head. Tighten the air vent when fuel is discharged with no air bubbles when the pump is actuated.
	<ul style="list-style-type: none"> • Valve clearance exceeds minimum specifications
	<ul style="list-style-type: none"> • Take your unit to your Local Authorized KIOTI Dealer to have the valve clearance adjusted. When the engine is cold: - Inlet : 0.010 in. (0.25 mm) - Exhaust : 0.012 in. (0.30 mm) • Engine oil becomes thick in cold weather and engine cranks slow. • Change grade of oil according to the weather. (CJ-4. 10W-30 from -35°C to 30°C. 15W-40 from -17°C to 50°C) • Check battery condition. • Remove the battery and have it load tested to confirm it meets minimum specifications at your Local Authorized KIOTI Dealer or a local auto parts store.



CAUSE		COUNTERMEASURES
1. When engine is difficult to start	• Start motor does not rotate when key switch is turned	• Make sure the clutch pedal is fully depressed.
		• Place the PTO switch in the "OFF" position
		• Inspect the battery for loose connections, corroded terminals, etc.
2. Low HP or engine performance	• Valve out of adjustment	• Take your unit to your Local Authorized KIOTI Dealer to have the valve clearance adjusted. When the engine is cold: - Inlet : 0.010 in. (0.25 mm) - Exhaust : 0.012 in. (0.30 mm)
	• Air cleaner is dirty	• Clean the element at every 100 hours of operation. • Replace the element after 1 year of operation or more frequently if operated in extremely dusty environments.
3. Heavy exhaust smoke or white color	<ul style="list-style-type: none"> • Check the fuel filter condition and for water contamination. Replace if needed. • Check the fuel system for damaged hoses, loose or missing hardware, leaks, etc. 	<ul style="list-style-type: none"> • Select good quality fuel. <ul style="list-style-type: none"> Temperature <ul style="list-style-type: none"> - Above 14°F (-10°C) - Below 14°F (-10°C) Fuel type <ul style="list-style-type: none"> Ultra-low sulfur diesel Ultra-low sulfur diesel

※ Consult your Local Authorized **KIOTI** Dealer for assistance.

TRACTOR TROUBLESHOOTING

CAUSE		COUNTERMEASURES
1. When tractor does not move while engine is running	• Shift lever is in neutral position	• Check the shift levers.
	• Parking brake is applied	• Release the parking brake.
2. Clutch is not operating correctly	• Clutch slips (does not pull under load)	• Contact Your Local Authorized KIOTI Dealer.
	• Clutch cannot be disengaged	
3. Brakes do not operate correctly	• Brake does not operate or only one brake pedal operates	• The brake pedal play is excessive. Adjust the play.
		• Brake fluid is low. Check the brake fluid in the reservoir and top off as needed.
	• Brake pedal does not return properly	• If the brakes do not stop the tractor, suspend use immediately and contact your Local Authorized KIOTI Dealer for assistance.
		• The brake return spring is damaged. Replace it.
4. Steering wheel is not operating correctly	• Steering wheel is heavy or vibrates	• Remove cap from master cylinder and confirm cap breather is operating correctly. If the pedals will not return, suspend use immediately and contact your Local Authorized KIOTI Dealer for assistance.
		• Check the toe-in and adjust as needed.
		• Check tire inflation. Left side and right sides pressures should be the same. Inflate to the manufacturer's recommended pressure.
	• Steering wheel play is excessive	• Loose or missing wheel hardware or damaged wheel. Tighten, replace or repair as needed.
		• Inspect the steering shaft, steering motor and tie rod ends for excessive wear or damage. Replace worn or damaged components as required.



CAUSE		COUNTERMEASURES
5. Hydraulic system issues	• Oil is leaking	<ul style="list-style-type: none"> • Hose clamp is loose. Re-tighten it. • Cracked hydraulic pipe. Remove and replace with a new pipe.
	• 3-point hitch does not operate	<ul style="list-style-type: none"> • Check for a blown fuse. Check all settings and adjustments in the arm rest and adjust as needed. • Inspect for leaks, broken or damaged lift cylinder and linkages. Repair or replace as needed.
	• 3-point hitch does not raise	<ul style="list-style-type: none"> • The transmission fluid is insufficient. Fill to the specified level. • The hydraulic oil filter is clogged. Replace. • Inspect for leaks, broken or damaged lift cylinder and linkages. Repair or replace as needed.
	• 3-point hitch vibrates	<ul style="list-style-type: none"> • Set the draft control lever to the "Deep" position. • Select the highest top link hole to decrease draft sensitivity.
6. Electrical system issues	• Headlamps do not turn on	<ul style="list-style-type: none"> • The fuse is blown. Check the wiring and replace the fuse. • The bulb is blown. Replace it • The ground terminals have a poor connection. • The switch is not functioning. Check and change the switch.
	• Battery is not charging	<ul style="list-style-type: none"> • Check the battery and alternator.
	• Horn does not sound	<ul style="list-style-type: none"> • The horn switch is faulty. Replace it. • The wiring is faulty. Repair or replace it.
		• The horn is damaged. Repair or replace it.

CAUSE		COUNTERMEASURES
6. Electrical system issues	• Turn signal lamps do not blink	<ul style="list-style-type: none"> • The bulb is blown. Replace it. • The hazard flasher is faulty. Repair or replace it. • The switch is not functioning. Check and change the switch.
	• Work lamps do not come on	<ul style="list-style-type: none"> • The bulb is blown. Replace it. • The switch is not functioning. Check and change the switch.
7. Heater/air conditioner system issues	• Fan speed is slow or no air is coming out of the vents	<ul style="list-style-type: none"> • The fan speed control switch are faulty. Check, repair and replace as needed. • The air intake filters are clogged. Clean or replace as needed. • The fuse is blown. Check the wiring and replace the fuse.
	• Abnormal noise occurs	<ul style="list-style-type: none"> • The compressor belt is loose. Adjust the belt tension. • Internal HVAC components are damaged. Inspect, repair and replace as needed.
	• Refrigerant and oil are leaking	<ul style="list-style-type: none"> • A hose or o-ring is leaking. Repair or replace as needed. • The hose securing bolt is loose or missing. Tighten or replace as needed.
	• Diminished cooling performance	<ul style="list-style-type: none"> • The refrigerant is insufficient. See your Local Authorized KIOTI Dealer. • The compressor is faulty. Repair or replace it.
	• Compressor clutch does not operate	<ul style="list-style-type: none"> • The voltage is low. Inspect and replace the fuse, relay or wiring.

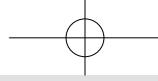
※ Consult your Local Authorized **KIOTI** Dealer for assistance.



ENGINE ERROR CODES

If the following SPN/FMI error occurs on the instrument panel, please contact your nearest **KIOTI** dealer.

SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
262	6	INTAKE AIR PRESSURE SENSOR FAULT	Intake manifold pressure sensor signal drift fault.	○				Please contact your local dealer
262	5		Intake manifold pressure sensor signal drift fault.	○				Please contact your local dealer
263	20	INTAKE AIR PRESSURE SENSOR SC2G FAULT	Intake manifold pressure sensor plausibility fault.	○				Please contact your local dealer
264	18	INTAKE AIR PRESS. SENSOR OC OR SC2VBATT FAULT	Intake manifold pressure sensor signal high or short to battery fault.	○				Please contact your local dealer
277	1	COOLANT TEMP. SENSOR PLAUSIBILITY	Coolant temp. sensor plausibility fault.	○				Please contact your local dealer
279	20	COOLANT TEMP. SENSOR SC2G FAULT	Coolant temp. sensor signal low fault.					Please contact your local dealer
280	18	COOLANT TEMP. SENSOR OC OR SC2VBATT FAULT	Coolant temp. sensor signal high fault.					Please contact your local dealer
288	23	FOOT PEDAL SIGNAL TRACK1 FAULT	Foot pedal signal track 1 fault.	○		○		Please contact your local dealer
386	20	FUEL TEMP. SENSOR SC2G FAULT	Fuel temperature sensor low fault.					Please contact your local dealer
387	18	FUEL TEMP. SENSOR OC OR SC2VBATT FAULT	Fuel temperature sensor high fault.	○				Please contact your local dealer

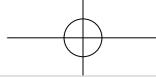


SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
402	20	RAIL PRESSURE SENSOR SIGNAL SC2G FAULT	Rail pressure sensor signal low fault.	○	○			Please contact your local dealer
403	18	RAIL PRESSURE SENSOR SIGNAL OC OR SC2VATT FAULT	Rail pressure sensor signal high fault.	○	○			Please contact your local dealer
513	18	INJECTOR 0 OPEN CIRCUIT FAULT	No. 1 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
513	19	INJECTOR 0 SHORT CIRCUIT FAULT	No. 1 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
514	18	INJECTOR 3 OPEN CIRCUIT FAULT	No. 2 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
514	19	INJECTOR 3 SHORT CIRCUIT FAULT	No. 2 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
515	18	INJECTOR 1 OPEN CIRCUIT FAULT	No. 3 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
515	19	INJECTOR 1 SHORT CIRCUIT FAULT	No. 3 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
516	18	INJECTOR 2 OPEN CIRCUIT FAULT	No. 4 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
516	19	INJECTOR 2 SHORT CIRCUIT FAULT	No. 4 injector is failed, no power and engine speed is limited.	○				Please contact your local dealer
544	24	FOOT PEDAL SIGNAL TRACK 2 FAULT	Foot pedal signal track 2 is fault.	○		○		Please contact your local dealer



SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
805	1	KNOCK SENSOR 1 FAULT	No 1 of Knock sensor signal or noise ratio is too low in idle.	○				Please contact your local dealer
816	1	KNOCK SENSOR 2 FAULT	No. 2 of Knock sensor 2 signal or noise ratio is too low in idle.	○				Please contact your local dealer
1027	1	EGR CONTROL AND SINAL FAULT	1. EGR position control fault. 2. EGR H-bridge driver open circuit (OC). 3. EGR H-bridge driver short circuit to ground (SC2G). 4. EGR H-bridge driver short circuit to battery voltage (SC2VBAT).	○			○	Please contact your local dealer
1027	20	EGR SC2G FAULT		○			○	Please contact your local dealer
1027	21	EGR SC2VBATT FAULT		○			○	Please contact your local dealer
1027	3	EGR H-BRIDGE DRIVER FAULT		○			○	Please contact your local dealer
1027	3	EGR H-BRIDGE DRIVER FAULT		○			○	Please contact your local dealer
1027	4	EGR H-BRIDGE DRIVER FAULT		○			○	Please contact your local dealer
1314	5	ENGINE OIL PRESSURE LOW FAULT	At engine run, oil pressure remains low. Oil pressure warning lamp will come on.		○			please check the engine oil level and fill in if necessary or contact your local dealer.
1378	4	BATTERY VOLTAGE LOW FAULT	Battery voltage is lower than specs.					Please contact your local dealer

SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
1379	4	BATTERY VOLTAGE HIGH FAULT	Battery voltage is higher than specs.	O				Please contact your local dealer
1581	20	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `A` FAULT	Injector 1&3 or wires are failed.	O				Please contact your local dealer
1581	21	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `A` FAULT		O				Please contact your local dealer
1581	1	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `A` FAULT		O		O		Please contact your local dealer
1582	20	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `B` FAULT	Injector 2&4 or wires are failed.	O				Please contact your local dealer
1582	21	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `B` FAULT		O				Please contact your local dealer
1582	1	INJECTOR DRIVER CIRCUIT PERFORMANCE BANK `B` FAULT		O		O		Please contact your local dealer



SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
1601	26	ECU INTERNAL 5V SUPPLY 1 FAULT	ECU internal 5V supply 1 is fault.	○				Please contact your local dealer
1601	26	ECU INTERNAL 5V SUPPLY 1 FAULT		○				Please contact your local dealer
1617	26	ECU INTERNAL 5V SUPPLY 2 FAULT	ECU internal 5V supply 2 is fault.	○				Please contact your local dealer
1617	26	ECU INTERNAL 5V SUPPLY 2 FAULT		○				Please contact your local dealer
1687	26	ECU INTERNAL 5V AUXILLARY FAULT	ECU internal 5V supply to auxiliary is fault.	○				Please contact your local dealer
1687	26	ECU INTERNAL 5V AUXILLARY FAULT		○				Please contact your local dealer
4641	25	FOOT PEDAL LIMP HOME FAULT	Foot pedal signal fault, it cause limp home mode of vihecle.	○		○		Please contact your local dealer
4644	25	HAND PEDAL LIMP HOME FAULT		○		○		Please contact your local dealer
5702	1	PTO CRUISE SWITCH FAULT	PTO cruise and ajust switches are fault or wires are failed.					Please contact your local dealer

SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measu- er and correction
5703	1	PTO CRUISE DEC/SET SWITCH FAULT	PTO cruise DECREASE switch is fault. Or wire is failed.					Please contact your local dealer
5703	22	PTO CRUISE DEC/SET SWITCH FAULT						Please contact your local dealer
5703	20	PTO CRUISE DEC/SET SWITCH FAULT						Please contact your local dealer
5704	1	PTO CRUISE INC/RESUME SWITCH FAULT	PTO cruise INCREASE switch is fault. Or wire is failed.					Please contact your local dealer
5704	22	PTO CRUISE INC/RESUME SWITCH FAULT						Please contact your local dealer
5704	20	PTO CRUISE INC/RESUME SWITCH FAULT						Please contact your local dealer
8194	28	DPF OVERLOAD FAULT	DPF overload fault.					Please contact your local dealer
8241	1	DPF IN TEMP. SENSOR SIGNAL FAULT	Temperature sensor in DPF is fault.	O				Please contact your local dealer
8242	20	DPF IN TEMP. SENSOR SC2G FAULT	Temperature sensor in DPF is fault like cut.					Please contact your local dealer
8243	18	DPF IN TEMP. SENSOR OC OR SC2VBATT FAULT	Temperature sensor in DPF is fault like shorted.					Please contact your local dealer



SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
8450	20	ACV H-BRIDGE DRIVER FAULT	ACV H-Bridge driver is short to ground fault.	○				Please contact your local dealer
8451	21	ACV H-BRIDGE DRIVER FAULT		○				Please contact your local dealer
8472	3	ACV H-BRIDGE DRIVER FAULT	ACV driver circuit is fault.	○				Please contact your local dealer
8472	3	ACV H-BRIDGE DRIVER FAULT		○				Please contact your local dealer
8473	7	ACV CONTROL FAULT	ACV control fault.	○				Please contact your local dealer
8480	23	HAND PEDAL SIGNAL TRACK1 FAULT	Main signal of Hand accelerator is fault.	○		○		Please contact your local dealer
8485	24	HAND PEDAL SIGNAL TRACK2 FAULT	Secondary signal of Hand accelerator is fault.	○		○		Please contact your local dealer
8804	8	WATER IN FUEL SENSOR FEEDBACK FAULT	Feedback signal of water sensor in fuel filter is Delete to circuit to ground fault.	○				Please contact your local dealer
8804	9	WATER IN FUEL SENSOR FEEDBACK FAULT		○				Please contact your local dealer
8809	1	WATER IN FUEL SENSOR DETECT FAULT	Water in fuel sensor detected.			○		Please drain water from filter or Please contact your local dealer

SPN	FMI	Fault name	Description	CEL "ON"	DELAYED ENGINE STOP (20s)	LIMP HOME (1400rpm)	Emission Failure Lamp "ON"	Provisional measurer and correction
9263	28	DPF PLUGGED FAULT	DPF plugged fault.	O				Please contact your local dealer
9299	1	DPF DIFF.PRESS SENSOR PLAUSIBILITY FAULT	DPF differential pressure sensor signal is plausibility fault.	O				Please contact your local dealer
9299	22	DPF DIFF.PRESS SENSOR PLAUSIBILITY FAULT		O				Please contact your local dealer
9300	20	DPF DIFF. PRESS SENSOR SC2G FAULT	DPF differential pressure sensor signal is low.	O				Please contact your local dealer
9301	18	DPF DIFF. PRESS SENSOR OC OR SC2VBATT FAULT	DPF differential pressure sensor signal is high.	O				Please contact your local dealer
9323	1	DPF REGENERATION SWITCH FAULT	DPF regeneration switch is fault.	O				Please contact your local dealer
521015	31	RAIL PRESSURE OVER TIME FAULT	Rail pressure control error during IMV contro, high preesure detected.	O				Please contact your local dealer
1315	7	ENGINE OIL PRESSURE OC FAULT	Rail pressure sensor is in open circuit.	O				Please contact your local dealer
1315	8	ENGINE OIL PRESSURE SC FAULT	Rail pressure sensor is in short circuit.	O				Please contact your local dealer



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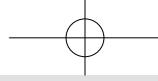
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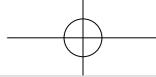
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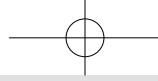
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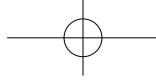
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