Zetor

COMPAX HT

OPERATOR´S MANUAL

1/2020

35 40

Tractor is Zetor. Since 1946.

ZETOR

This Operator's Manual for the Zetor tractors, which we are presenting to you will help you to become familiar with the operation and maintenance of your new tractor.
Although many of you have rich experience with the operation of other tractors, please, read the information contained in this Operator's Manual very carefully.
In the Manual you will find a lot of new information and get a perfect overview of how to use the tractor with maximum efficiency during various kinds of work.
If you observe the rules of tractor operation and maintenance and driving safety, your new tractor will become your reliable and long-term friend.
The manufacturer of the tractor wishes you thousands of hours of satisfactory work.

ZETOR
Brno

The technical specifications and information about the design, equipment, material and appearance are valid at the time of print. The manufacturer reserves the right to implement changes.

Printing errors reserved

The instructions for use are a part of the machine.

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LOCATION OF SERIAL NUMBERS

The engine number is stamped on the left hand side of the engine block.
The chassis number is stamped on the right hand side of the tractor, see the picture.

CCLHTN001

1 - Position of the stamped engine number and engine type
2 - Position of the stamped chassis number

Product Warranty
The manufacturer provides the warranty for this product. The warranty terms are set out in a separate document.

After-Sales Service
The objective of ZETOR TRACTORS a.s. company is complete customer satisfaction with the purchased product.
Any problems with your machine will be solved by your dealer / distributor service department.

Service
Service is available from any ZETOR TRACTORS a.s. dealer in the relevant area.

Spare Parts
To obtain spare parts, contact your nearest dealer and provide the following information:

- Tractor model
- Tractor serial number
- Tractor engine number
- Part number and description
- Quantity required

NOTES

ABOUT THIS MANUAL

This manual has been prepared to assist you in following / adopting the correct procedure for running-in operation and maintenance of your new ZETOR Tractor.

Your tractor has been designed and built to provide maximum performance, low fuel consumption and ease of use. To maintain the condition and ensure trouble-free performance, it is important that maintenance is performed at the recommended intervals as described in this manual.

Read this Manual carefully and keep it in a convenient place for future reference.

If at any time you require advice concerning your Tractor, do not hesitate to contact your Authorized ZETOR dealer / Distributor. He has trained personnel, genuine parts and necessary equipments to undertake all your service requirements.

All data given in this book is subject to production variations. Dimensions & weight are approximate only and the illustrations do not necessarily show Tractors in standard condition.

For exact information about any particular Tractor, please consult your ZETOR dealer / Distributor.

NOTES

INTRODUCTION & DESCRIPTION

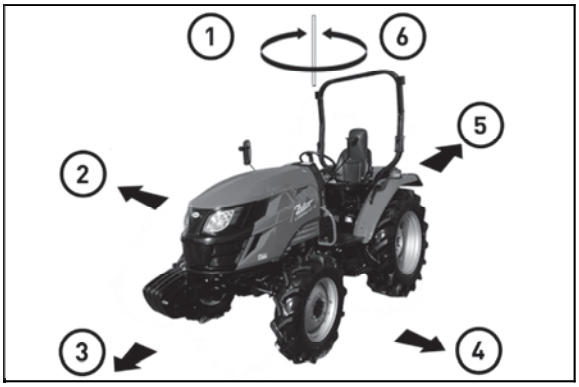
Instructions and Description
The word 'tractor' is derived from 'traction', which means towing.
The tractor is required to tow or draw working equipment, an implement or a trailer that is attached to the body of the tractor by means of a suitable hitch.
The tractor can also be used as a drivetrain, thanks to a power output called a PTO or a PTO shaft.

These operating manual is prepared in accordance with the operating, maintenance and storage instructions for the relevant Zetor tractor model.
The manual has been designed to help you better understand the maintenance and efficient operation of this machine.
If you require any information not provided in this manual or require service from a trained mechanic, contact your local ZETOR TRACTORS a.s. dealer/distributor.
Dealers/distributors are kept informed about the latest service procedures for tractors. They have original spare parts in stock and have full service support from the machine manufacturer.

In this manual, the use of the terms LEFT, RIGHT, FRONT and REAR must be unified to avoid any confusion when following these instructions.
LEFT and RIGHT means the left and right sides of the tractor when looking from the driver's seat towards the front. The reference to FRONT means the end of the tractor radiator, while REAR means the end of the drawbar (see the picture).

When ordering spare parts, always specify the tractor and engine serial numbers when ordering.
This will make their delivery easier and faster and ensure that you receive the right spare parts for your particular tractor.
The tractor's serial number is stamped on a plate attached to the right side of the tractor (see the picture).
For easy reference, we recommend you to write this number in the space reserved for the owner's personal data.

1 - Turning Right (Clockwise)
2 - Right
3 - Front
4 - Left
5 - Rear
6 - Turning Left (Anticlockwise)



CCLHTN002

(front, rear, left and right)

INTRODUCTION & DESCRIPTION

Description

Overall Design
The transmission case, clutch, clutch housing, engine and front axle support are bolted together to form a rigid unit.

Front Axle and Wheels
The front axle is a 4WD, center pivot type.
The front wheel drive mechanism is incorporated as a part of the axle. The front wheel drive power is taken from the rear-mounted transmission and transmitted to the front axle differential, where it is divided into right and left half axles and to the final drives.
In the final drives, the transmitted speed is reduced by the axle gears for front wheel drive.
This 4WD mechanism with axle gears allows a wider range of steering and longer service life of the mechanism.

Engine
The tractors are equipped with fuel-efficient three-cylinder engines manufactured by Yanmar.

Clutch and Transmission
A single-plate dry clutch is used in these tractors.
Tractors with IPTO (independent power take-off) are equipped with a hydraulic clutch assembly.
The transmission has twelve synchronized forward and twelve synchronized reverse gears with the Fast-Slow selector lever.

Brakes
Zetor tractors are equipped with disc brakes controlled by a foot pedal. There is a parking brake lever installed for parking.

Rear Axle and Wheels
It is mounted on ball bearings and is enclosed in a removable housing that is attached to the transmission case.
The rims and discs, assembled with the rear tires, are attached to the mounting points of the rear axle.

Hydraulic System and Hitches
Zetor tractors are equipped with active (i.e. the system is running) independent systems. A three-point hitch may be used for Type 1 (N) implement category.

Steering
Steering consists of a hydrostatic power steering system that has a hydraulic cylinder and a tandem hydraulic pump.

Electrical System
A 12 V battery is installed to start the motor using the starter.
The electrical system includes a horn, headlights, turn signal lights, tachometer, hour meter, brake lights, instrument lighting, hazard warning lights, generator or alternator, and a fuse box.

ROPS (ROLL OVER PROTECTION STRUCTURES)

Roll-Over Protection Structure (ROPS)
Zetor tractors are equipped with a frame to protect the operator.
On tractors with a cab, this frame is built into the cab structure.
The objective of the frame or the cab design is to protect the operator in the event of rolling over, they are designed to support the full weight of the tractor.
Each ROPS or cab structure, as well as any mounting brackets and screws or other fasteners, have been designed and tested to meet safety and government standards.

Danger

 ***For the ROPS frames to effectively protect the tractor operator, the operator in the driver's seat must be wearing a seat belt. This will keep the driver inside the ROPS-protected area in the event of a rollover. Failure to use the seat belt can result in serious injury or death.***

Some models of the ROPS frame can be folded, which can be used when entering low buildings, etc.
Be careful when lowering the top part of the ROPS and be very careful when driving with the ROPS lowered.

Do not use the seat belt with the ROPS lowered and remember that the folding mechanism is intended for special use only and not for daily routine operation.

 ***Using a tractor with the ROPS folded can cause serious injuries.***

Since the ROPS frame or ROPS cab, together with the seat belt, have been designed to meet safety standards, they must be maintained in good order and in good condition.
For maximum safety, both the frame and seat belt must be regularly inspected (whenever the tractor is serviced).
If the seat belt is damaged or frayed, it must be replaced and if the ROPS frame or any part of its mounting structure is damaged or cracked, the defective part must be replaced by a new one.
Such a part must meet all test criteria of the original set.
The use of poor quality component(s) affects the certification of the entire ROPS and the effectiveness of the structure in the event of an accident.

 ***Drilling or welding or making any unprofessional modifications of ROPS is prohibited.***

ROPS (ROLL OVER PROTECTION STRUCTURES)

ROPS damage
If the tractor has rolled over or the ROPS has been damaged (for example, by hitting a low overhead object or during transport), the ROPS must be replaced to provide the guaranteed protection.

After an accident, check for damage on:
1. ROPS.
2. Seats
3. Seat belt and seat mountings.
Replace any damaged parts before operating the tractor.

CCLHTN003

Do not weld, drill or straighten the ROPS.

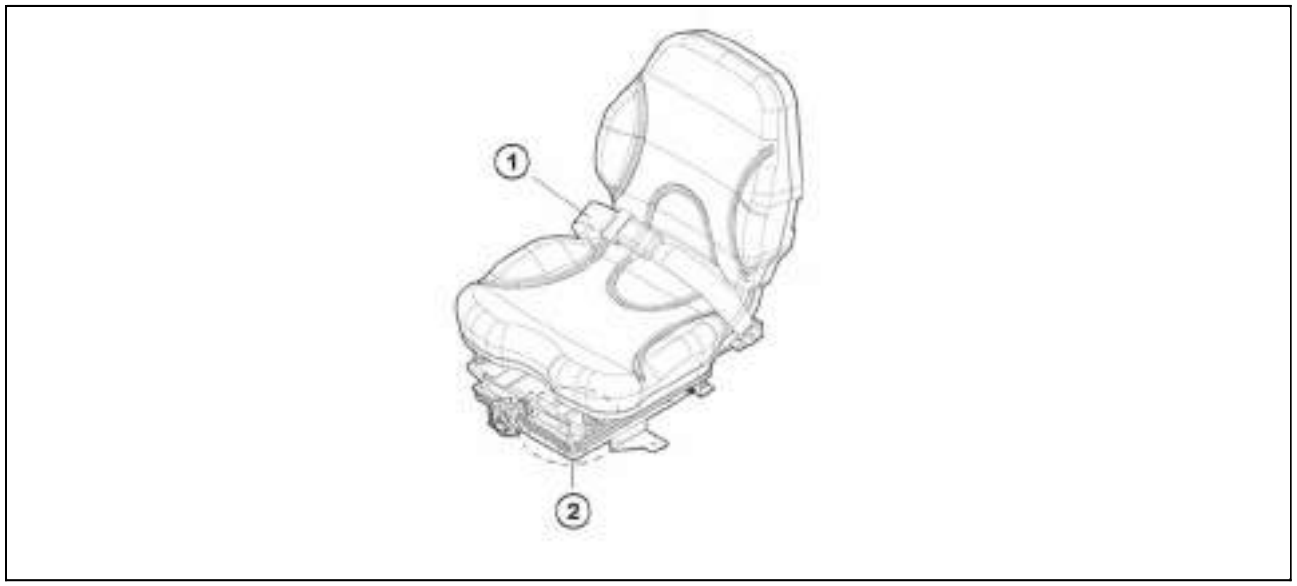
Warning: Never attach chains or ropes to the ROPS for towing; it will cause the tractor to roll over. Always use the points specified on the tractor for towing. Be careful when driving through open doors or under low overhead objects. Ensure sufficient overhead clearance for ROPS to avoid fatal injuries.

Warning: When removing or replacing the ROPS, ensure that the correct fasteners are used to replace the ROPS and that the fastening bolts are tightened to the recommended torque values.

Warning: If the tractor is equipped with ROPS, always use the seat belt.

ROPS (ROLL OVER PROTECTION STRUCTURES)

Sliding Seat
To adjust the seat position, move the adjustment lever and slide the seat towards or away from the instrument panel and controls.



CCL25004

1 - Seat Belt
2 - Forward / Reverse Position Adjustment Lever

Before operating the tractor, it is important to adjust the seat to the most comfortable position and ensure that it is properly locked in its position.

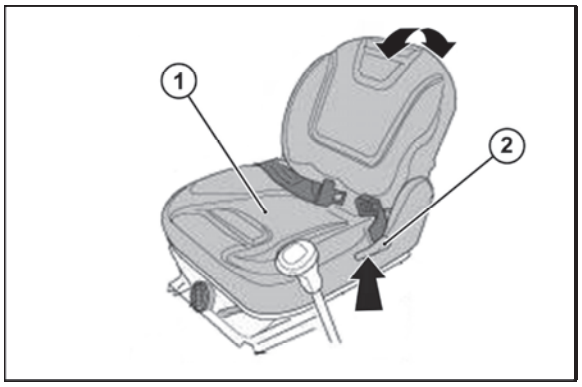
NOTE:
Do not use solvents to clean the seat. Use warm water with detergent.

Warning: Do not place your hand between the seat and the guide rail when adjusting the seat. You may be injured.

Danger: Check that the seat is properly locked in its position before driving the tractor.

Danger: Always use the seat belt when the ROPS is installed/lifted. Do not use the seat belt if the ROPS is folded down or not installed. Check the seat belt regularly and replace it if it is frayed or damaged.

Seat Back Reclining

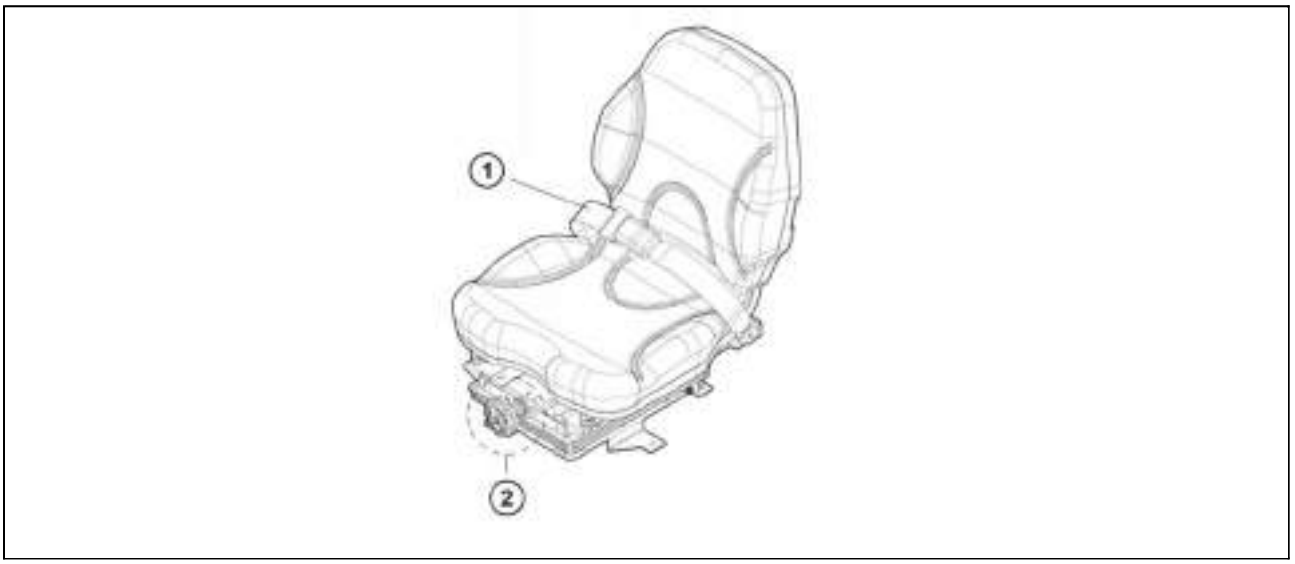


HODP008

1 - Seat belt
2 - Backrest angle adjustment lever

To change the seatback angle, raise the lever on the left of the seat.
Then, adjust the seatback angle with the lever pulled. Release the lever after adjustment . Make sure that the lever is returned and the seat is firmly fixed after adjustment.

Seat Suspension Adjustment
The seat cushion can be adjusted according to the driver's weight.
Turning the cushion adjustment knob counterclockwise towards 50 kg position will make the cushion softer.
By turning the knob clockwise towards 130 kg position, the cushion becomes harder.



CCL25005

1 - Seat Belt
2 - Knob for Weight Adjustment

SAFETY INSTRUCTIONS, DO'S & DON'TS

Introduction to safety information

This symbol means **ATTENTION! YOUR SAFETY IS INVOLVED.** The message that follows the symbol contains important information about safety. Carefully read the message.

Signal words

A signal word 'DANGER, WARNING OR CAUTION' is used with safety alert symbol. DANGER identifies the most serious hazards. Safety signs with signal Word 'DANGER OR WARNING' are typically near specific hazards. General precautions are listed on CAUTION safety signs.

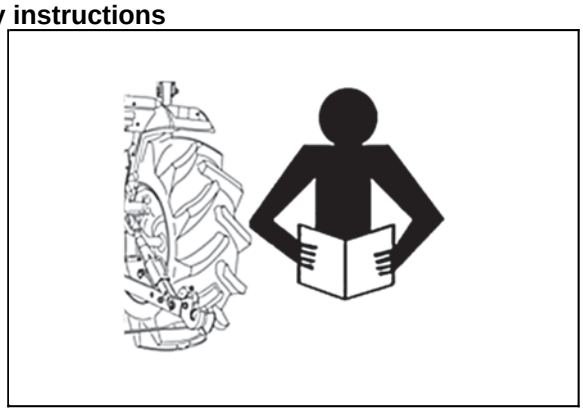
DANGER

WARNING

CAUTION

Introduction to safety instructions Introduction to safety instructions

Carefully read all safety instructions given in this manual for your safety. Tempering with any of the safety devices can cause serious injuries or death. Keep all safety signs in good condition.
Replace missing or damaged safety sings.
Keep your tractor in proper condition and do not allow any unauthorized modifications to be carried out on the tractor, which may impair the function/safety and affect tractor life.



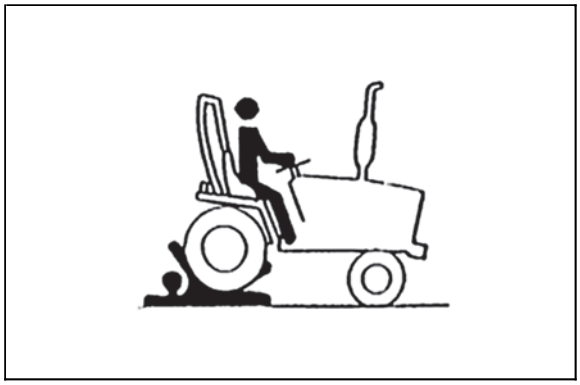
U18N134

Protection children

When using the tractor, prevent other persons from accessing the tractor.

Reverse travel

- Look around if someone is not behind the tractor.
- Do not allow anyone to ride on the tractor or implement.



U18N135

Use of rops and seat belt

The Roll Over Protective Structure (ROPS) has been certified to industry and/or government standards. Any damage or alternation to the ROPS, mounting hard-ware, or seat belt voids the certification and will reduce or eliminate protection for the operator in the event of a roll-over. The ROPS, mounting hardware, and seat belt should be checked after the first 100 hours of tractor and every 500 hours thereafter for any evidence of damage, wear or cracks. In the event of damage or alternation, the ROPS must be replaced prior to further operation of the tractor.

The seat belt must be worn during machine operation when the machine is equipped with a certified ROPS. Failure to do so will reduce or eliminate protection for the operator in the event of a roll over.

U18N136

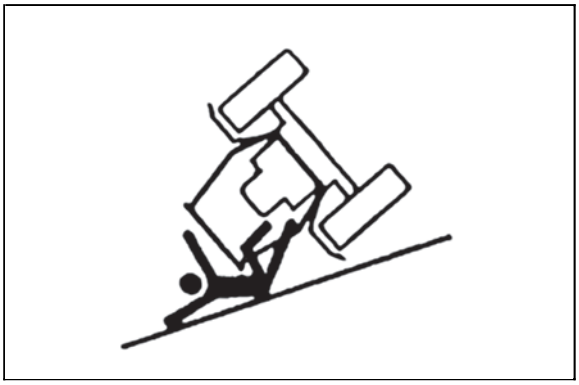
Precaution to avoid tipping

Do not drive where the tractor could slip or tip.

Stay alert for holes and rocks in the terrain, and other hidden hazards.

Slow down before you make a sharp turn.

Driving forward out of a ditch or mired condition could cause tractor to tip over backward. Back out of these situations if possible.



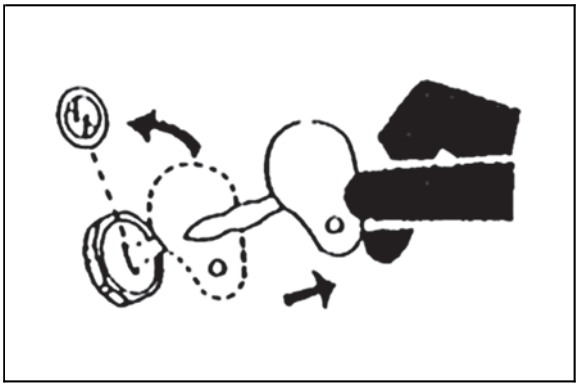
U18N137

Safe parking of the tractor

Before working on the tractor:

Lower all equipment to the ground.

Stop the engine and remove the key.



U18N138

Keep riders off tractor

Do not allow other persons to ride on the tractor besides the operator.

Persons on the tractor are exposed to the risk of injury, e.g. due to the impact of a foreign object or falling from the tractor.

U18N139

Handle fuel safely-avoid fires

Handle fuel with care; it is highly flammable. Do not refuel the tractor while smoking or near open flame or sparks.
Always stop engine before refueling tractors.
Always keep your tractor clean of accumulated grease, and debris. Always clean up spilled fuel.

U18N140

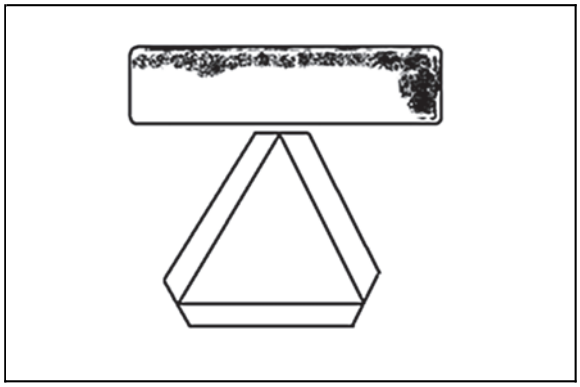
Stay clear of rotating shafts

Entanglement in rotating shaft can cause serious injury or death.
Keep PTO shield in place at all times.
Wear close fitting clothing. Stop the engine and be sure PTO drive is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

U18N141

Always use safety lights and devices

Use of hazard warning lights and turn signals are recommended when towing equipment on public roads unless prohibited by state or local regulations.
Use slow moving vehicle (SMV) sign when driving on public road during both day & night time, unless prohibited by low.



U18N142

Practice safe maintenance

Be thoroughly familiar with the service procedure before performing work.
Keep the tractor area clean and dry.
Do not attempt to service the tractor while it is in motion.
Be careful not to let your body or clothing get into the rotating shaft.
Always lower all attached equipment on the ground. Turn off the engine.
Remove the ignition key. Let the tractor cool down before any repairs.
All parts of the tractor that need to be lifted for service work must be securely supported.
Keep all parts in good conditions and properly installed.
Replace worn or damaged parts. Replace damaged/missing plates.
Remove any accumulated excess grease or oil from the tractor.
Disconnect the battery ground cable (-) before making adjustments to electrical systems or performing welding work on the tractor.

U18N143

Avoid high-pressure fluids

Liquid escaping under pressure can penetrate the skin and cause serious injury. Be especially careful when handling the injection elements - there is a risk of injecting liquids under high pressure under the skin of your hands or other parts of your body. If ANY liquid penetrates the skin, contact your doctor immediately.

U18N144

Prevent battery explosions

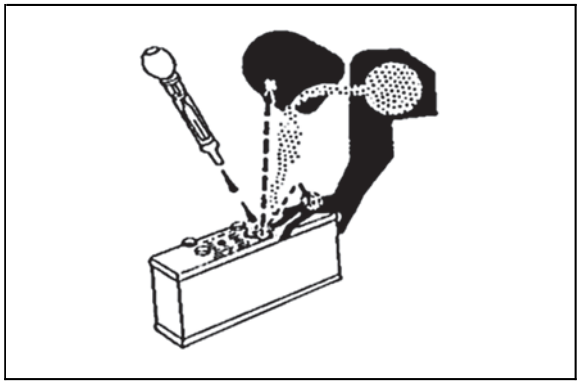
Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode. Never check battery charge by placing a metal object across the poles.

U18N145

SAFETY INSTRUCTIONS, DO'S & DON'TS

Prevent acid burns

Protect the top of the battery from sparks, flammable materials and open flames. Accumulated battery fumes can explode. Never check the battery charge by connecting the battery terminals with a metal object.



U18N146

Sulfuric acid in the battery electrolyte is hazardous to health. It is strong enough to burn the skin, burn through the clothing and cause blindness when it gets into the eyes.
To ensure adequate safety, always:

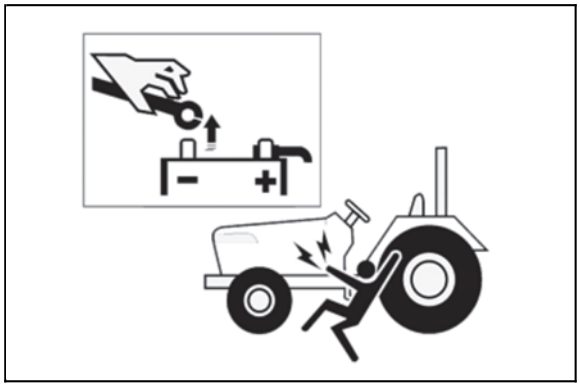
1. Refill the batteries in a well-ventilated place.
2. Wear eye protection and acid-resistant gloves.
3. Do not inhale the released vapors after the electrolyte has been added.
4. Do not add water to the electrolyte, as it may cause expansion and subsequent severe burns.

If you get stained with acid:

1. Rinse skin with water.
2. Rinse eyes with water for 10 - 15 minutes. Seek medical advice immediately.

Battery disconnect

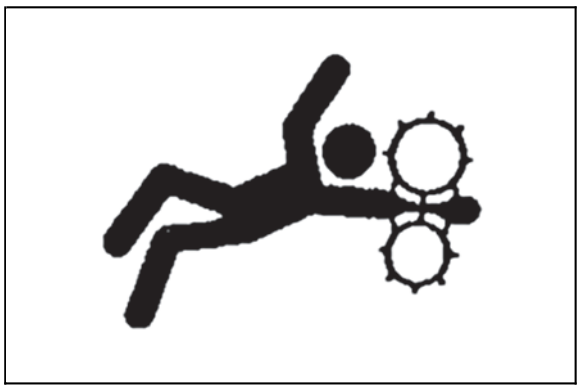
1. When working with your tractors electrical components you must first disconnect the battery cables.
2. To ensure that there are no accidents from sparks you must first disconnect the negative battery cable.



UCL18N007

Service tractor safely

Do not wear a tie, scarf or any other loose clothing when working near moving parts. If any of these garments is caught, a serious injury may occur.
Do not wear rings or other jewellery to avoid electrical short circuits and entanglement in moving parts.



U18N147

SAFETY INSTRUCTIONS, DO'S & DON'TS

Work in ventilated area
Do not start the tractor in an enclosed building unless the doors & windows are open for proper ventilation, as tractor fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area remove the exhaust fumes by connecting exhaust pipe extension.

U18N148

Tractor runaway

1. The tractor may start when the gear is engaged, as a result of which the tractor may run uncontrolled and can cause serious injuries to people standing near the tractor.
2. When using the starter switch or other work on the tractor, the gearbox must be in the neutral position, the handbrake applied and the PTO lever disengaged.

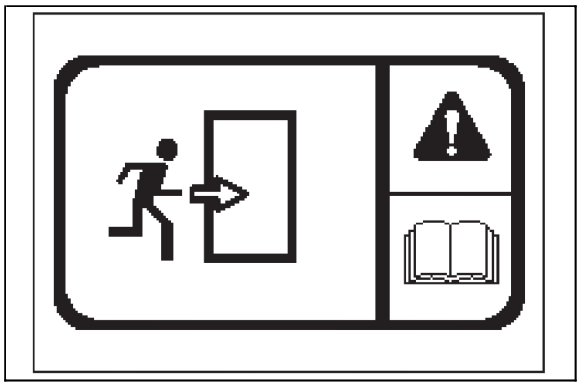
Safety starter switch

1. Clutch operated safety switch is provided on all tractors which allow the starting system to become operational only when the clutch pedal is fully pressed.
2. Do not by-pass this safety starter switch or work on it. Only authorized dealers are recommended to work on safety starter switch.
3. On some models safety starter switch is provided on transmission high-low shifter lever and in PTO shifter lever. The tractor can be started only if High-low shifter lever is in neutral position.

Caution: ***Safety starter switch is to be replaced after every 2 000 hours / 4 years, whichever is earlier.***

Emergency exits
If exit from the cab side doors is blocked (following an accident or vehicle overturn) the alternative safety exits are indicated by decals.
The possible safety exits are:

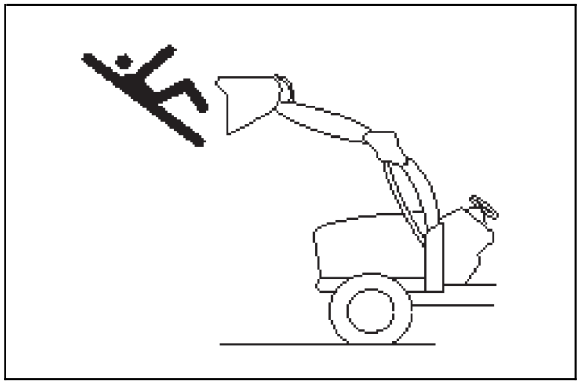
- Rear window hatch (all tractors)
- Front window (for versions with openable front window).



U18N005_1

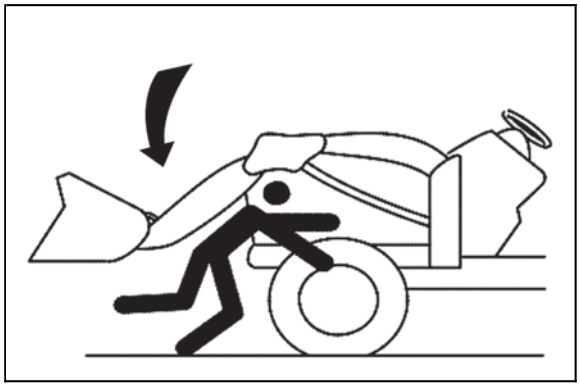
Safety precautions when using the loader

Do not allow persons to enter the attached loader adapter or the loader boom operating area. Failure to do so may result in serious injuries or even death.



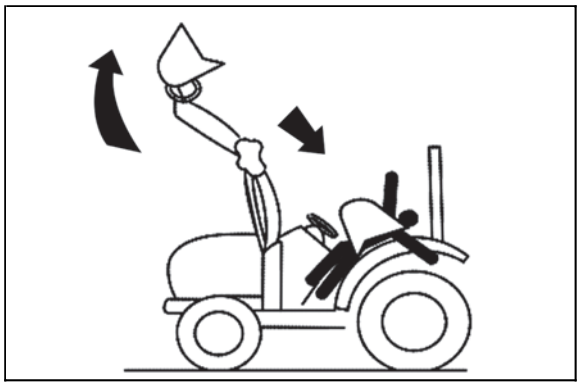
U18N005_2

Do not stay under the lifted loader or do not approach it. Lower the loader boom to the ground before leaving the tractor. Failure to do so may result in serious injuries or even death.



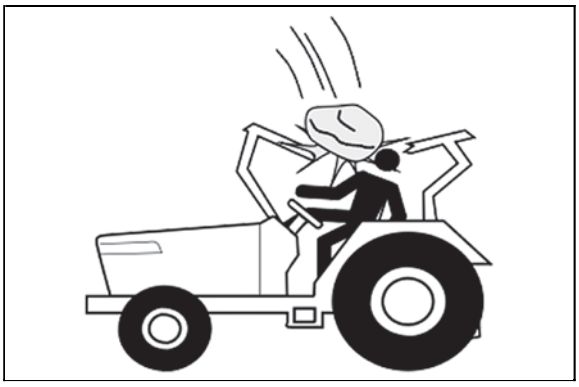
U18N005_3

When mounting or dismounting the loader, secure all parts that are attached to the adapter and the boom. The adaptor or the boom may unexpectedly drop, which can lead to injury or even death.



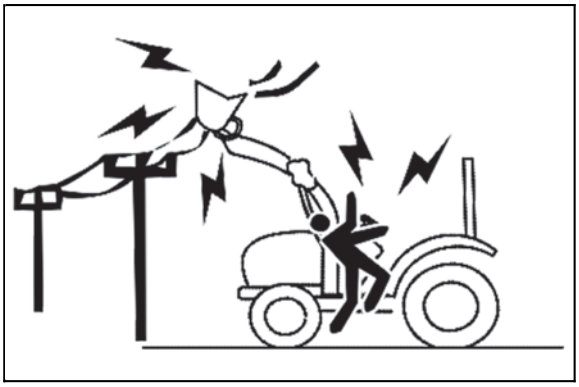
U18N005_8

ROPS (roll-over protective structure), sun visor and cab are not FOPS protective structures (falling-object protective structure).
In no case does it serve to protect the operator from falling objects.
Avoid driving in dangerous areas, such as places where there is a danger of falling rocks, etc.



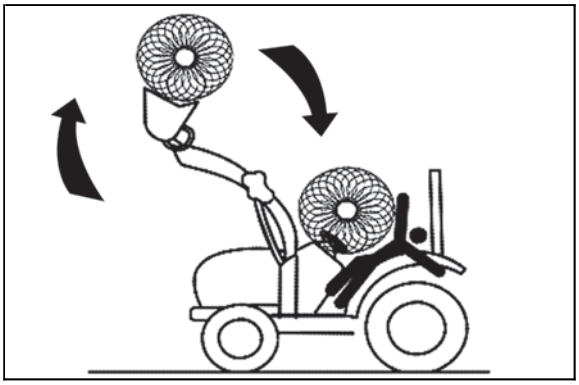
U18N005_5

Do not allow the boom or attached adapter or equipment to come into contact with electrical lines or other electrical equipment. Electric current causes serious injuries or death.



U18N005_6

For safe handling of loads, always use a suitable type of adapter for your work. While driving, keep the boom loaded with a load at a low position above the mat. Failure to do so may result in machine damage, serious injury or even death.



U18N005_7

Towing safely
For the maximum permissible load of the hitch, see 'Maximum hitch load' in the Specifications section.

- Maintain a suitable speed taking into account the weight of the load towed or carried by the tractor and the inclination of the surrounding terrain, remembering that the braking distances will be greater than that of a unloaded tractor. Attached trailers or semi-trailers with or without brakes that exceed the specified technically permissible maximum authorized weight may cause loss of control of the tractor unit.
- Always take into account the total weight of the attached machine and its load.
- When semitrailers are attached to the tractor, remember to switch all controls to neutral position, lock the parking brake, turn off the engine, engage first gear (for mechanical transmission), and remove the ignition key before leaving the operator's seat. ALWAYS secure the wheels of the tractor and the trailer with wedges. The safest and recommended way to transport a damaged tractor is to transport it on a low-load trailer. Always attach the tractor to the low-load trailer with chains. Before transporting the tractor on a low-load trailer or on a railway wagon, make sure that the engine cover, door, openable roof (if available) and windows are closed and securely locked. Never tow the tractor at a speed higher than 10 km/h. In this case, the operator must remain in the operator's seat to drive and brake the tractor.

 **Caution:** ***When a trailers is hitched to the tractor, before you leave the driving seat remember to put all the controls in neutral, apply the handbrake, switch off the engine, engage first gear (if the tractor has a mechanical transmission) and remove the key from the starter switch. If the tractor is not parked on level ground, ALWAYS place chocks under the wheels of both the tractor and the trailer For further information on safe working procedures, refer to the chapter 'Parking the tractor' in the safe section of this manual.***

Falling Object Protective Structure (FOPS)
The term FOPS refers to a structure mounted on a tractor to reduce the risk of injury to the operator from falling objects.

 ***This tractor is not equipped with a FOPS protection.***

Operator Protective Structure (OPS)
The term OPS refers to a protective structure installed on a tractor in order to minimize risk of operator injury caused by objects penetrating into the operator position area.

 ***This tractor is not equipped with an OPS. If work must be carried out in areas where there is a risk of objects entering the driver's platform, consult your dealer before starting work on a suitable protective structure the tractor can be equipped with.***

Use of Hazardous Substances

Below find the classification category, as determined according to ISO 14269-5, for the cab installed on this tractor series:

- Engine operating at rated speed
- Maximum amount of air blown from outside the cab (recirculation closed)
- With fan at maximum speed

 ***Danger: Use all personal protective equipment suitable for the relevant work and the relevant substances, in accordance with the requirements of the legislation applicable in your country.***

Category of protection against hazardous substances	Category 1

The cab does not provide any protection against hazardous substances.

SAFETY INSTRUCTIONS, DO'S & DON'TS

Safe operation of your tractor

The manufacturer of your tractor has made every effort to make it as safe as is humanly possible.
Beyond this point it is the responsibility of the operator to avoid accidents and we ask that you read and implement our suggestions for your safety.
Ensure that only trained and competent operators use this tractor and ensure that they are fully conversant with the machine and aware of all it's control and safety features.
Operators should not operate a tractor or attached machines if they are not properly trained or if they are physically unfit to operate the machine.
To avoid accidents please ensure that the operator wears clothing which will not get entangled in the moving parts of the tractor or machine and protect him or her from the elements.
When spraying or using chemicals, please ensure that clothing and protective equipment is worn which prevents respiratory or skin problems.
For full details consult the manufacturer of the chemicals.
To avoid lengthy exposure to noise ensure that ear protection is worn.
If adjustment to the tractor or machinery need to be made ensure the tractor or machine are turned off beforehand.
Use of certified Roll Over Protection Structure (ROPS) is a must while operating a tractor.
Use of seat belt is a must while operating a tractor.
Under all circumstances, it is necessary to ensure the safety of the operator and others near the machine.
Ensure no one is between the tractor and a towed vehicle (trailer or implement).

Safety Tips During Maintenance

1. At least on a daily basis check all oil levels. Water level in the radiator and electrolyte level in the battery and perform services according to the service schedule.
2. Ensure tire pressure are even and the correct pressure for the job being done is maintained.
3. Check to ensure that the all controls and preventative mechanisms of the tractor and implement work correctly and effectively.
4. Ensure that an adequate set of the correct tools is available for maintenance and minor repairs.
5. Ensure that all service work and repairs are carried out on a flat area with a concrete or similar floor. Do not carry out service work on a tractor until it is switched off, and the parking brake applied and wheels choked.
   Where a tractor is started in a confined area, ensure that the area is well ventilated as exhaust gases are very harmful, and can cause death.
6. Do not work under raised implements.
7. When changing wheels or tires ensure that a suitable wheel stand is placed under the axle prior to removing the wheel and the wheels are chocked.
8. Where guards or shields need to be removed to perform a service or repair, ensure that the guard or shield is correctly reinstalled before starting the tractor.
9. Never refuel near a naked flame or with an overheated engine. Ensure to turn off Engine before refueling.
10. The cooling system operates under pressure, take care when removing the radiator cap on a hot engine to prevent being scalded by steam or hot water. Do not add water in the radiator when the engine is hot. Add water to the radiator only after the engine cools down completely.
11. To prevent fires keep the tractor including the engine clean and free from inflammable material and well away from fuels and other inflammable material.

SAFETY INSTRUCTIONS, DO'S & DON'TS

Mounting and demounting implements

1. Ensure that all assembly and disassembly of implements (attachments) is carried out on a secure, level surface. To prevent accidental injuries, ensure that no one is between the tractor and the implement or under the implement.
2. After mounting the implement, ensure that all hanging parts such as chains or hoses are properly secured and, where PTOs are used, properly fastened and secured.
3. Where heavy implements are used, ensure that the unit is well balanced, using suitable ballast to ensure this balance.
4. Before leaving the tractor, lower the implement onto the ground, deactivate the PTO, apply the parking brake and stop the engine.
5. When working with an implement that uses PTO, make sure that no other persons are near the moving parts and do not make any modifications to the implement while the machine is in operation.
6. A tractor equipped with a ROPS protective frame only performs its function in combination with a fastened seat belt.
7. If children are present in the immediate vicinity of the machine or unit, caution and anticipation of possible risks related to the movement and operation of the machine are necessary.
8. The tractor may only be used by trained operators who must ensure that no worker is injured. Extra caution is necessary in dusty environment with significantly reduced visibility.
9. Never start the tractor unless the transmission is in the neutral position, the operator is in the driver's seat, and there is no other danger when the engine is started up.
10. Only the operator sitting in the driver's seat can operate the tractor. Never turn or brake suddenly at high speed, as this may cause the tractor to roll over, resulting in serious injury or death.
11. When driving on public roads, observe all legal requirements of the country in which the tractor is operated, including the requirements for accompaniment. When driving with wide implements, use the warning devices specified by the applicable legislation in the country in which the machine is used.
12. When operating under adverse conditions, in hilly or bad terrain, adjust the speed of the tractor to the following conditions:
    Never drive down the hill rashly or with the transmission in the neutral position.
    Use engine braking capability together with service brakes.
    Do not attempt to shift gears in a steep slope and engage a suitable gear before starting to drive the tractor.
13. When driving uphill with a heavy implement, be careful to prevent overloading and loss of front axle adhesion and consequent loss of control.
14. Never remove or modify the seat belt.
15. Never remove, modify or repair the ROPS protective frame.

 ***Please remember that a little bit of extra care can prevent serious injury or teath and avoid damage to your tractor.***

SAFETY INSTRUCTIONS, DO'S & DON'TS

The following precautions are suggested to help prevent accidents
The best operator is the careful operator. Most accidents can be prevented by observing certain safety measures. Before using the tractor, read the following measures and observe them to avoid accidents. The tractor may only be operated by authorized persons who are properly trained for this operation.

Tractor

1. Read the operating and maintenance manual of the machine carefully before operating the tractor. Insufficient knowledge of machine operation can lead to accidents.
2. For safe operation, use an approved protective structure and seat belt. Roll-over of a tractor without a protective structure can result in serious injuries or even death.
3. **Do not remove the roll-over protective structure (ROPS).** Always use the seat belt.
4. The laminated roof of the tractor cab does not provide protection against the breakthrough of external objects with higher weight.
5. To avoid falling while entering and leaving the cab, keep the stairs and platform clean, free of mud and oil.
6. Do not allow anyone other than the operator to ride on the tractor. There is no safe seat or approved passenger seat on the tractor.
7. Replace any missing, illegible or damaged safety signs.
8. **Keep safety signs clean, free of dirt and grease.**

Tractor service

1. For your safety, keep the tractor in good operating conditions. An inadequately maintained tractor can be dangerous.
2. Stop the engine before servicing the tractor.
3. The cooling system operates under pressure. **If the engine and its cooling system are hot, it is dangerous to remove the cap.** Turn the cap slowly to the stop, then let the pressure escape before removing the cap.
4. **Do not smoke while refueling the tractor. Never refuel the machine near an open flame.**
5. The fuel in the injection system is under high pressure and can penetrate the skin. Unqualified persons must not disassemble or modify the fuel pump, injectors, nozzles or other parts of the fuel injection system. Failure to follow these instructions may result in serious injuries.
6. **To prevent fire or explosion, keep the battery and the cold start devices away from open flames.**
7. **Do not change or modify anything on the tractor and do not allow anyone to change or modify anything on the tractor or any part of the tractor or its function.**

SAFETY INSTRUCTIONS, DO'S & DON'TS

Tractor Operation

1. Before starting the tractor, apply the parking brake, set the PTO switch to the 'OFF' position, move the hydraulic control levers to neutral, the remote control levers to neutral (if fitted), and the transmission to neutral.
2. Do not start the engine or operate the tractor when standing next to the tractor. Always sit in the driver´s seat when the engine is running or when operating the controls.
3. A safety switch is mounted on the tractor to prevent the tractor from starting accidentally. The tractor's starter system is connected via this switch, which only closes when the clutch pedal is depressed. On some models, the reverse lever and the PTO button must also be in the neutral position to close the starter circuit. It is forbidden to bypass the starter safety switch in any way. If the starter safety switch is defective, consult your Zetor tractor dealer/distributor.
4. Avoid accidental contact with the shift lever while the engine is running. Such contact can cause the tractor to move.
5. Do not get off or get on the tractor while it is moving.
6. Before leaving the tractor, stop the engine, remove the ignition key and apply the parking brake.
7. Do not operate the tractor in an enclosed building without adequate ventilation. Exhaust gases can cause death.
8. Do not park the tractor on a steep slope.
9. If the power steering or engine stops working, stop the tractor immediately.
10. Use only the lower swinging hitch or the draw bar connected to the 3-point hitch lower link in the down position. Always use a lockable pin to secure it. Attaching the drawbar to the rear axle bracket or any other point on the rear axle can cause the front axle to be lifted and the loss of control over the machine.
11. If the front of the tractor tends to lift when heavy working implement is attached to the three-point hitch, install the front ballast weights or front wheel weights. Do not operate the tractor with a light front axle.
12. Always use the hydraulic position control lever when attaching the implement and transporting the implement. Make sure that the hydraulic couplers are properly mounted and that they will disconnect safely in case of accidental detachment of implement.
13. Do not leave the implement in the lifted position.
14. Use the beacon, turn signal lights and slow moving vehicle (SMV) signs when driving on public roads during both day and night time, unless prohibited by law.
15. Dim the tractor lights when meeting approaching vehicles at night. Make sure that the lights are adjusted to avoid dazzling the eyes of the oncoming vehicle driver.
16. Emergency stop instruction: If the tractor does not stop after the brakes are applied, switch off the ignition switch (or switch off the key).

Tractor control

1. Watch where you drive,especially at the ends of the rows, the headlands, on the roads, around the trees and at obstacles hanging low to ground.
2. To prevent the tractor from rolling over, drive the tractor at a safe speed, especially when driving on uneven ground, when driving over ditches or slopes, and when turning in corners of areas and parcels.
3. When driving on the road, do not disconnect the two brake pedals of the tractor from each other to ensure better braking.
4. When driving downhill, shift the same gear in the tractor as uphill. Do not drive downhill with the engine stopped or idling.
5. For safety reasons, any towed vehicle and/or trailer, the weight of which exceeds the maximum towed weight, must be fitted with its own brakes.
6. If the tractor gets stuck or its tires are frozen to the ground, try to reverse to prevent the tractor from rolling over.

Always make sure you have enough space above you, especially when transporting the tractor.

SAFETY INSTRUCTIONS, DO'S & DON'TS

PTO operation

1. When operating a PTO driven implement, stop the engine and wait until the PTO stops before getting off the tractor and disconnecting the implement.
2. Do not wear loose clothing when operating the PTO or near a rotating equipment.
3. When operating PTO-driven stationary equipment, always secure the tractor with the tractor parking brake and secure the rear wheels from the front and rear side with wedges.
4. To avoid injury, always cover the PTO outlet. Do not clean, modify or repair the PTO-driven equipment while the tractor engine is running.
5. Always make sure that the PTO cover is installed and always install the PTO end piece cover whenever the PTO is not in use.

Diesel fuel

Diesel complies with EN 590 standard
IMPORTANT NOTE! ***By using motor oil with elevated sulphur content, the service life of diesel particle filter can be significantly reduced.***

1. Keep the equipment clean and properly maintained.
2. Under no circumstances should gasoline, alcohol or blended fuels be added to diesel fire or explosive hazard. Such blends are more explosive than pure gasoline. In a closed container, such as a fuel tank. DO NOT USE THESE BLENDS.
3. Never remove the fuel cap or refuel the tractor with the engine running.
4. Do not smoke while refueling or when standing near fuel.
5. Maintain control of the fuel filler pipe when filling the tank.
6. Do not fill the fuel tank to capacity. Allow room for expansion.
7. Wipe up spilled fuel immediately.
8. Always tighten the fuel cap securely.
9. If the original fuel tank cap is lost, replace it with genuine cap. A none approved cap may not be safe.
10. Do not drive equipment near open fire.
11. Never use fuel for cleaning purpose.
12. Arrange fuel purchases so that winter grade fuel are not held over and used in the spring.

Note: ***It is suggested that after repairs if any of the safety decal/sign is peeled/defaced, the same may be replaced immediately in interest of your safety.***

SAFETY INSTRUCTIONS, DO'S & DON'TS

DO'S AND DON'T'S

DO'S-for better performance

YES Ensure that protective covers are returned immediately and they are in good conditions.

YES Read all operating instructions before operating the tractor

YES Perform all maintenance tasks completely and without error.

YES Keep the air filter clean.

YES Ensure that lubricating oils of the appropriate standard and quality are used and that they are refilled and changed at recommended intervals.

YES After replacing the filter elements, install new sealing rings.

YES Observe the warning light on the oil pressure gauge and if it lights up, check immediately for any abnormality.

YES Make sure the radiator is always filled with clean water and use antifreeze in cold weather. Drain the system only in case of emergency and refill before starting the engine.

YES Ensure the transmission is in the neutral position before starting the engine.

YES Store all fuel in clean environment and use a filter when filling the tank.

YES Perform minor adjustments and repairs as soon as necessary.

YES Allow engine to cool before removing radiator filler cap and adding water; remove the radiator cap slowly.

YES Engage a lower gear when going downhill steep slopes.

YES Connect the brake pedals together when driving on the road.

YES If the draft control lever is not in use, keep it in the lower limit position.

SAFETY INSTRUCTIONS, DO'S & DON'TS

Don'ts - for safe operation

DON´T- Run the engine with the air filter removed.

DON´T - Start the tractor in an enclosed building unless the windows and doors are open to ensure proper ventilation.

DON´T - Operate the tractor or engine while performing lubrication or cleaning.

DON´T - Allow the tractor to run out of diesel fuel, otherwise it will be necessary to bleed the system.

DON´T - Do not interfere in the injection pump - if the seal is broken, the warranty will be void.

DON´T - Allow the engine idle for an extended period of time.

DON´T - Run the engine when the fuel is not combusted in all cylinders.

DON´T - Do not drive with the brake or clutch pedal depressed. This will result in excessive wear of the brake linings, the driven clutch parts and the clutch release bearing.

DON´T - Use the disconnected brake pedals to turn the tractor on the road or at higher speeds.

DON´T - Refuel the tractor with the engine running.

DON´T - Get on or get off the tractor from the right side.

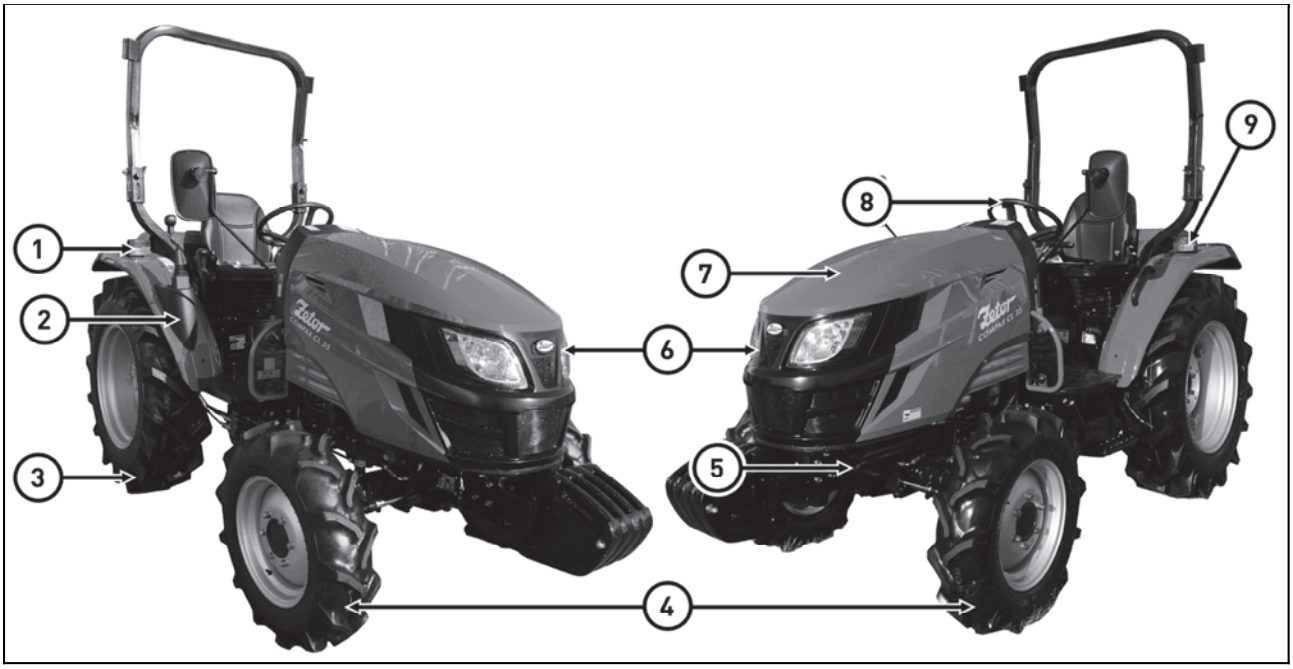
DON´T - Handle the upper stops of the control levers.

DON´T - Use the draft control lever to lift implements.

DON´T - Start the engine with the PTO engaged.

DON´T - Use the control lever (throttle lever) when driving on the road.

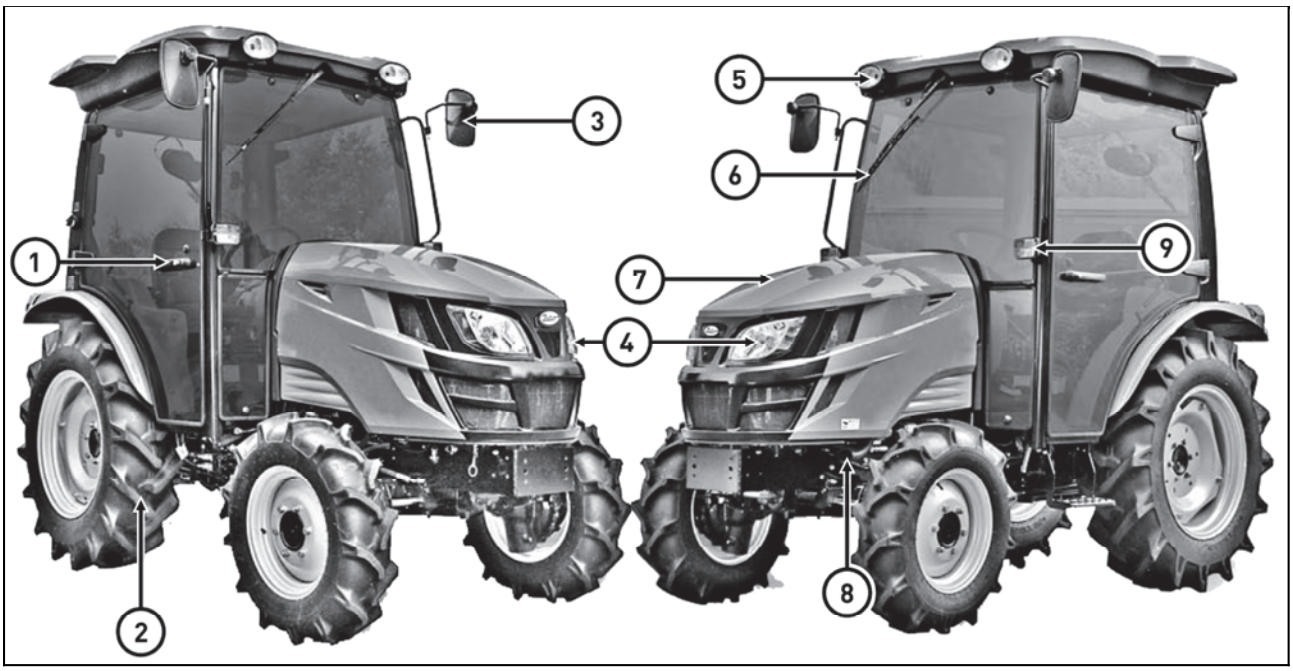
Exterior view (Type without cab)



CCLHTN004

1. Rear Light Right
2. Fender Extension
3. Rear Tire
4. Front Tires
5. Muffler
6. Headlights
7. Hood
8. Steering Wheel
9. Rear Light Left

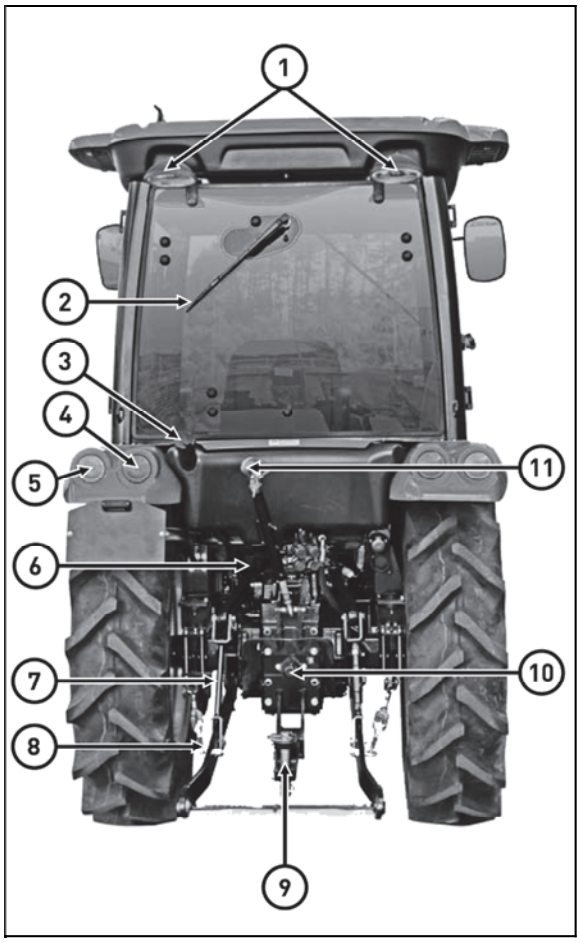
Exterior view (Type with cab)



CCLHTN005

1. Door handle
2. Rear Tire
3. Outside Rearview Mirror
4. Headlights
5. Work Light Front
6. Front Wiper
7. Hood
8. Muffler
9. Front Turn Signal Light / Position Light

1.Work Lights Rear
2. Rear Wiper
3. Fuel Tank
4. Position / Brake Light
5. Turn Signal Light
6. Lifting Link
7. Stabilizer Bar
8. Lower Link
9. Towing Hitch
10. PTO Shaft
11. Upper Link



CCLHTN013

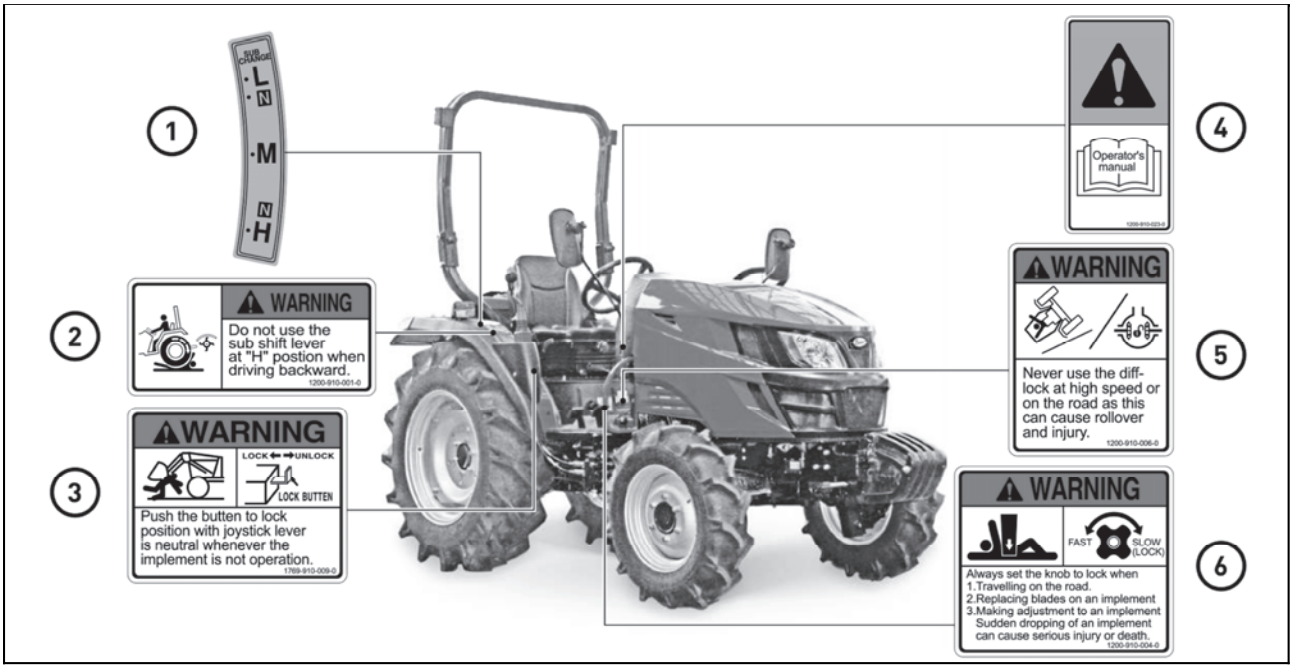
Safety labels

IMPORTANT: This 'general safety information' should be stored with the machine as reference data.

ATTENTION: This symbol means: ATTENTION! YOUR SAFETY IS AT RISK! The message that follows this symbol contains important safety information. Follow the recommended precautions and procedures for safe operation.

- ***Keep safety labels clean and undamaged.***
- ***Do not wash the labels with a direct stream of high pressure water, as the label may peel off.***
- ***If a safety label is damaged or lost, order a new one immediately and stick it to the machine.***
- ***When replacing a labeled part with a new part, also replace the label.***

Locations of safety labels



CCLHTN007

1.Reduced and Road Gears Shift Scheme

- L - Low Speed
- N - Neutral
- M - Medium Speed
- H - High Speed

2. Warning: Do not use the range shift lever in the **H** position when reversing.

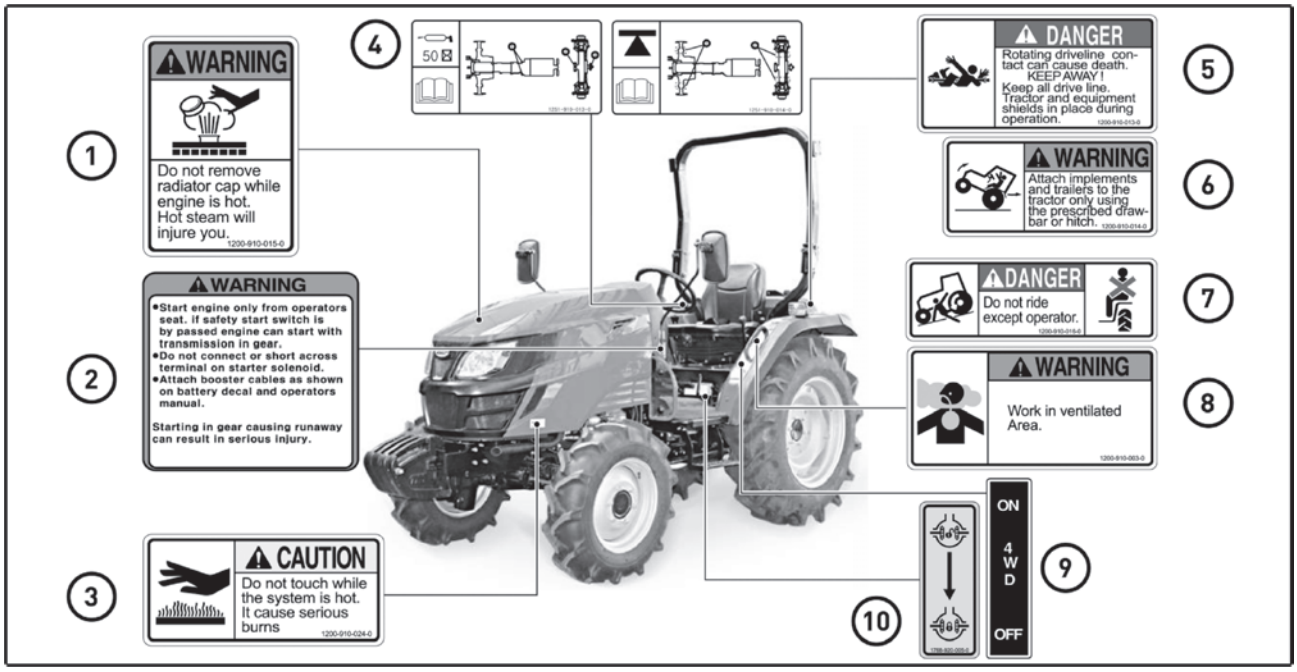
3. Warning: Push the lock button to the locked position with the joystick lever in neutral whenever the implement is not in use.

4. Operator´s manual.

5. Warning: Never use the differential lock at high speed or on the road, as this may cause the machine to roll over and cause injury.

6. Warning: Always move this control to the locked position when:

1. Driving on the road.
2. Changing the blades on an implement.
3. Performing adjustment and maintenance of the connected implement. A sudden drop of the implement can cause serious injury or death.



CCLHTN008

1. Warning: Do not remove the radiator cap while the engine is hot. Hot steam can cause injuries.

2. Warning:

- Only start the engine from the operator's seat. If the safety start switch is bypassed, the engine can be started with the gear engaged.
- Do not connect or short-circuit the leads on the starter coil.
- Connect the auxiliary power cables as indicated on the battery label and in the operating and maintenance manual.

Starting with the gear engaged will cause the machine to jump and can result in serious injury.

3. Notice: Do not touch when the system is hot. It will cause severe burns.

4. Labels showing lubrication and lifting points.

5. Danger: Contact with rotating parts can cause death. KEEP AWAY FROM THEM! Keep all protective devices in place.

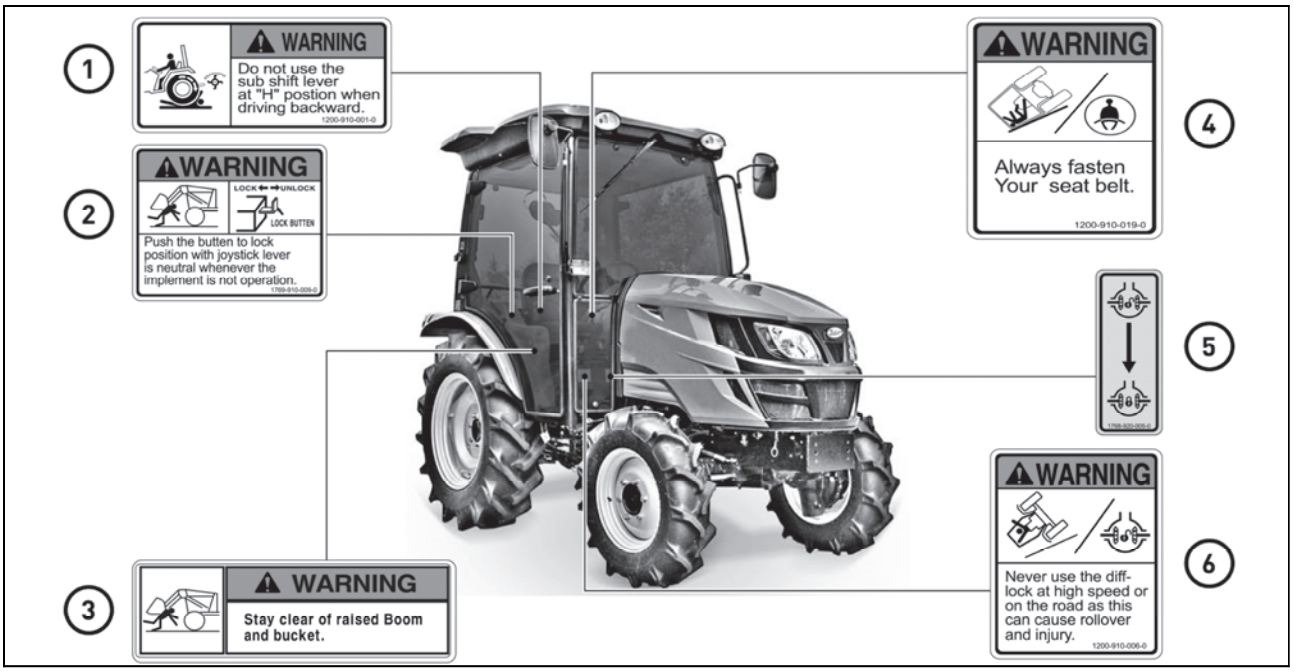
6. Warning: Use only the specified hitches when connecting trailers and implements.

7. Danger: Only the driver may ride on the tractor.

8. Warning: Work in a ventilated area.

9. Front axle drive shift scheme.

10. Differential lock shift scheme.



CCLHTN009

1. Warning: Do not use the range shift lever in the **H** position when reversing.

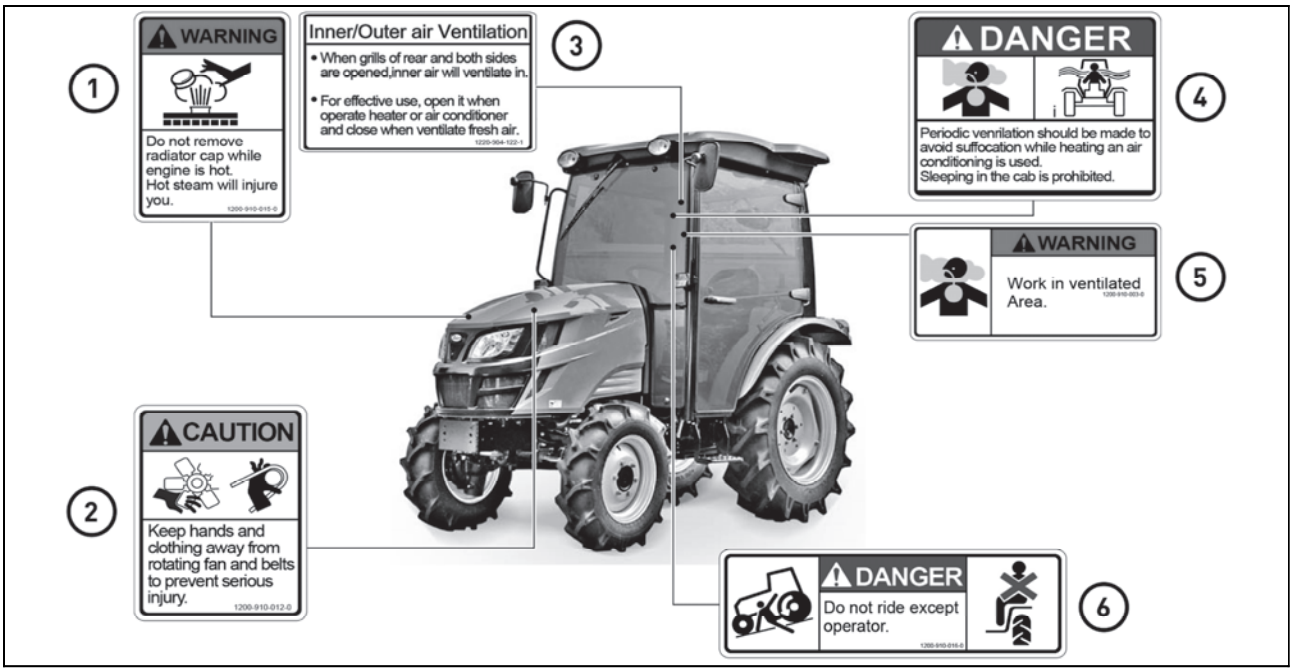
2. Warning: Push the lock button to the locked position with the joystick lever in neutral whenever the implement is not in use.

3. Warning: Do not stay under the raised boom.

4. Warning: Always use the seat belt.

5. Differential lock shift scheme.

6. Warning: Never use the differential lock at high speed or on the road, as this may cause the machine to roll over and cause injury.



CCLHTN010

1. Warning: Do not remove the radiator cap while the engine is hot. Hot steam can cause injuries.

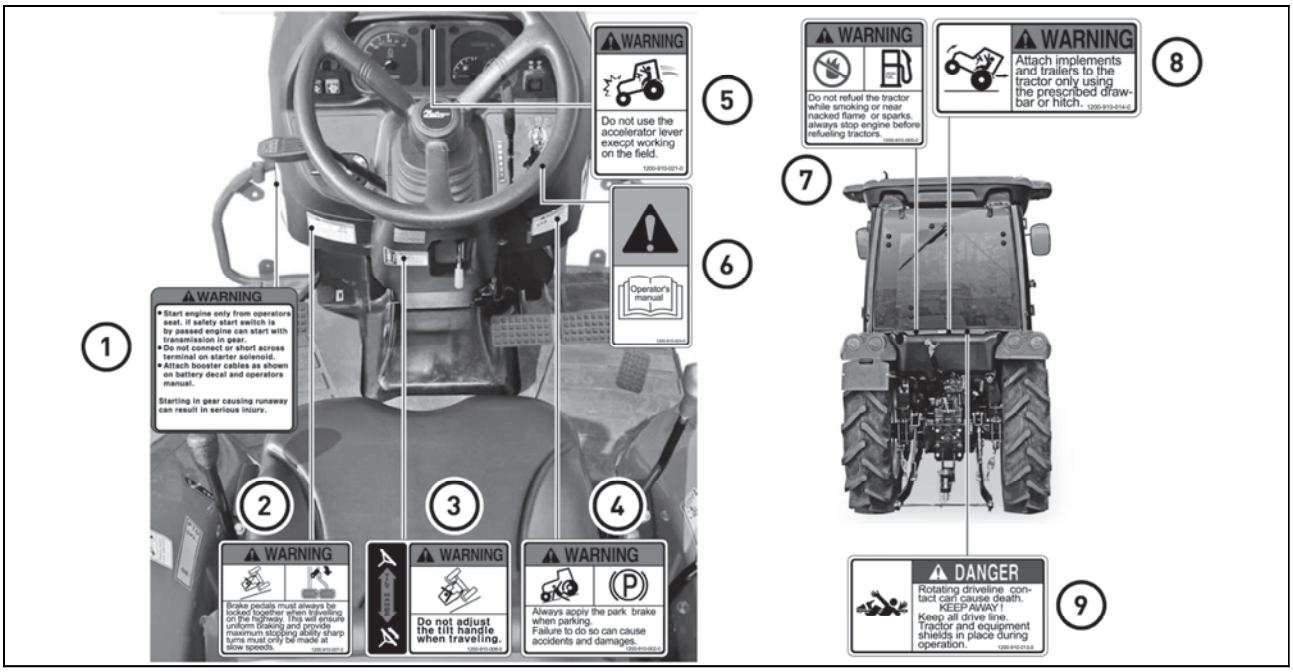
2. Notice: Keep hands and clothing away from moving engine parts to avoid serious injury.

3. Internal/external air ventilation: When the rear grilles are open on both sides, internal air circulation is active. Use internal air circulation when heating/air conditioning the cab. When the rear grilles are closed, fresh air flows into the cab, external circulation.

4. Danger: Do not use internal air circulation for a long time. During internal circulation, fresh air does not flow into the cab, which can lead to suffocation. Sleeping in the cab is forbidden.

5. Warning: Work in a ventilated area.

6. Danger: Only the driver may ride on the tractor.



CCLHTN012

1. Warning:

- Only start the engine from the operator's seat. If the safety start switch is bypassed, the engine can be started with the gear engaged.
- Do not connect or short-circuit the leads on the starter coil.
- Connect the auxiliary power cables as indicated on the battery label and in the operating and maintenance manual.

Starting with the gear engaged will cause the machine to jump and can result in serious injury.

2. Warning: When driving on the road, brake pedals must always be connected together. This will ensure even braking and maximum stopping capacity. Sharp turns can only be made at low speeds.

3. Warning: Do not adjust the steering wheel position while driving.

4. Warning: Always apply the parking brake when parking. Failure to follow this instruction may result in an accident.

5. Warning: Only use the hand throttle lever when working in the field.

6. Operators manual.

7. Warning: Do not refuel if you are smoking or if there is an open flame or spark source nearby. Always switch off the engine before refueling.

8. Warning: Use only the specified hitches when connecting trailers and implements.

9. Danger: Contact with rotating parts can cause death. KEEP AWAY FROM THEM! Keep all protective devices in place.

GENERAL INFORMATIONS

Universal symbols

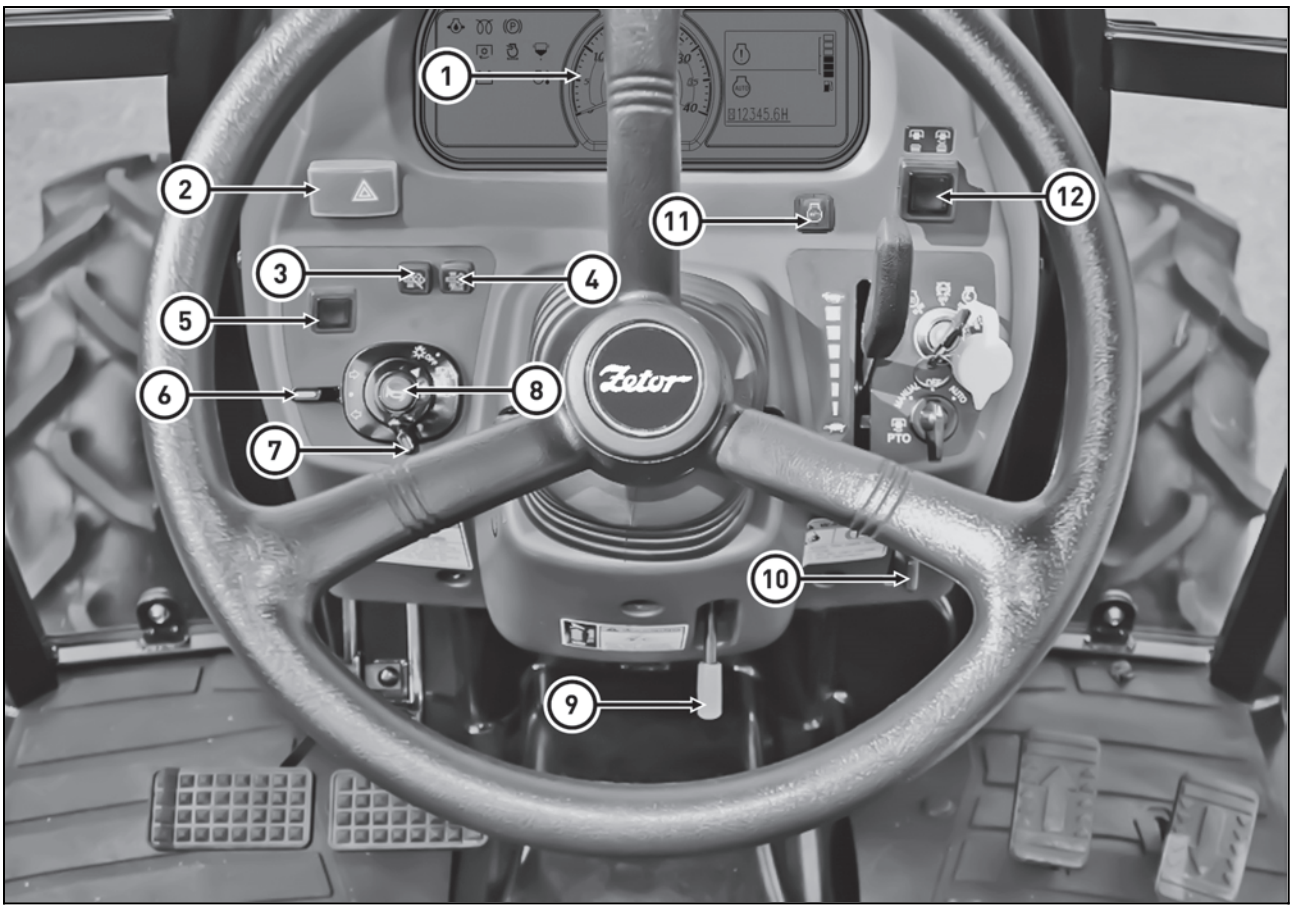
Some of the universal symbols have been shown below with an indication of their meaning.

 Engine speed rev/minX100	 Pressured-open slowly	 Corrosive substance
 Hours, recorded	 Continuous variable	 "Tortoise" Slow or minimum setting
 Engine coolant temperature	 Warning	 "Hare" fast or maximum setting
 Fuel level	 Hazard warning	 Transmission oil pressure
 Engine stop control	 Neutral	 Turn signal
 Lights	 Fan	 Transmission oil temperature
 Horn	 Power take off engaged	 Parking brake
 Engine oil pressure	 Power take off disengaged	 Work lamps
 Air filter	 Lift arm/raise	 Differential lock
 Battery charge	 Lift arm/lower	 See operator's manual

NOTES

TRACTOR CONTROLS

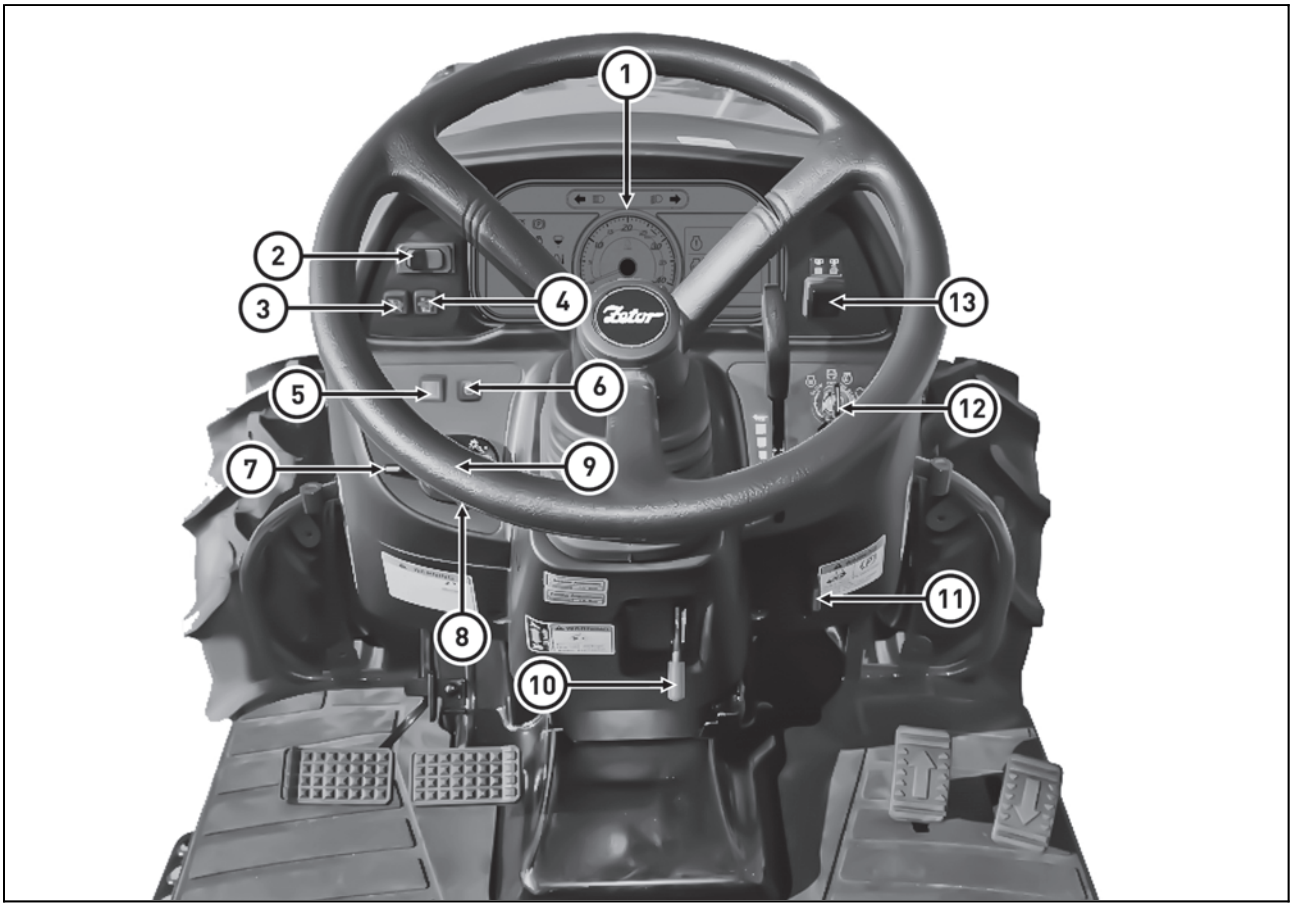
Instruments and Switches (Type with Cab)
1. Instrument Panel
2. Warning Light Switch
3. DPF Regeneration Deactivation Switch
4. DPF Regeneration Switch
5. Speed Limit Switch
6. Turn Signal Light Switch
7. Light Switch
8. Horn
9. Steering Wheel Angle Lever
10. Parking Brake Lever
11. Automatic Fuel Control Switch
12. PTO Switch (ON/OFF)



TRACTOR CONTROLS

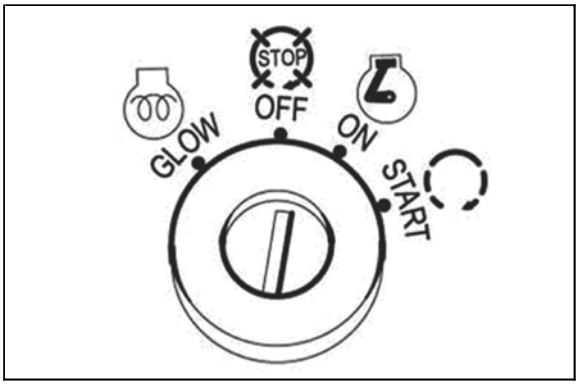
Instruments and Switches (Type without Cab)

1. Instrument Panel
2. Warning Light Switch
3. DPF Regeneration Deactivation Switch
4. DPF Regeneration Switch
5. Speed Limit Switch
6. Automatic Fuel Control Switch
7. Turn Signal Light Switch
8. Light Switch
9. Horn
10. Steering Wheel Angle Lever
11. Parking Brake Lever
12. Key Switch
13. PTO Switch (ON/OFF)



Key Switch

- OFF - The key can be inserted or removed.
- ON - The electrical circuit is closed.
- START - The engine starter is closed. When released, the key returns to the ON position.
- GLOW - Preheating of combustion chamber.



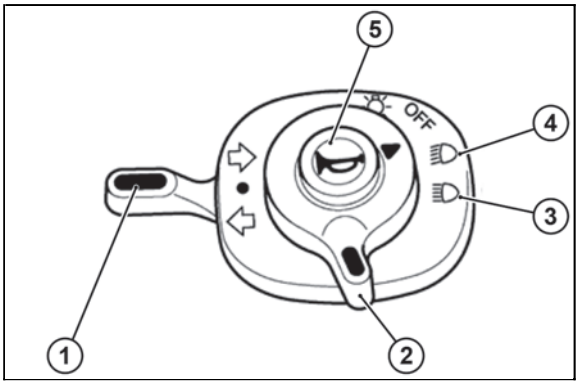
HODP042

Combined Switch
Turn Signal Light Switch Lever
Press the turn signal lever (1) down to signal a left turn.
Press the turn signal lever (1) up to signal a right turn.

Headlights Switch (if Beacon Light is Installed, also Beacon Light Switch)
High beam and low beam lights are controlled by the lever (2) on the main switch.
Position 3 - High beam lights (Beacon)
Position 4 - Low beam lights (Beacon)

Horn
Press the red button (5).

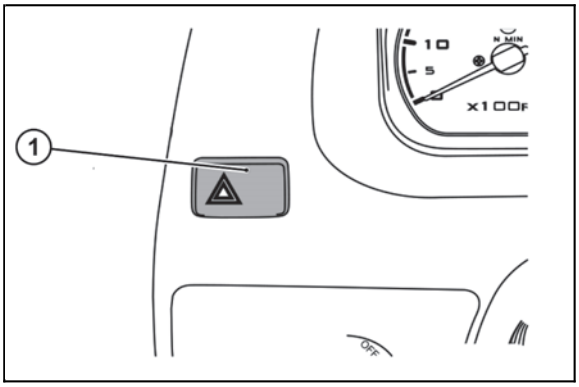
1 - Turn Signal Light Switch Lever
2 - Headlight Switch
3 - High Beam Lights (Beacon Light)
4 - Low Beam Lights (Beacon Light)
5 - Horn



U18N012

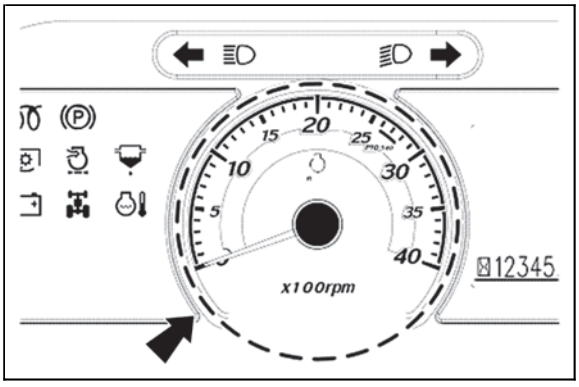
Warning Lights Switch
Push the hazard warning signal once to operate the hazard warning light. (Left and right turn indicators flash). Push the hazard warning light switch again to switch off the hazard warning lights.

1 - Hazard warning signal S/W



UCL18N015

Tachometer
Displays the number of engine or PTO revolutions per minute. At the highest gear also the speed.

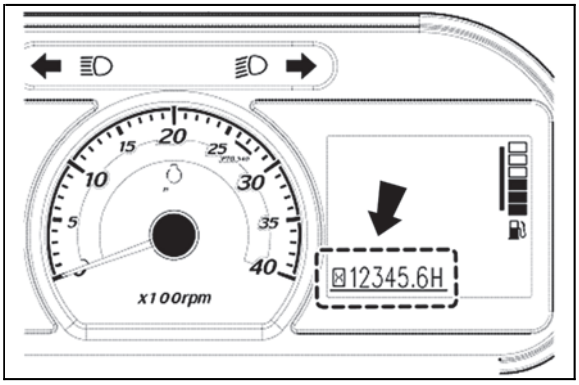


HODP044

Hour Meter

Displays the total time the machine has been used. The last digit indicates the tenth of an hour (after the decimal point).

If the hour meter on the left is in operation, the indicator light below it flashes.



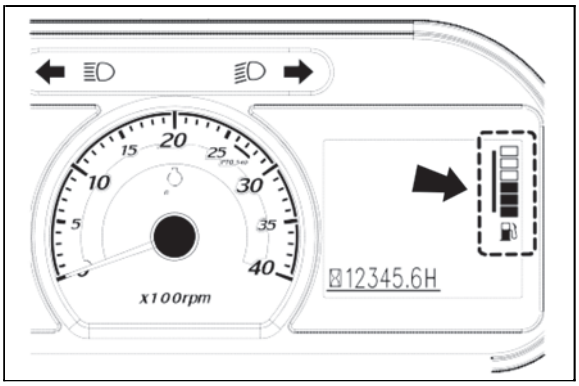
HODP045

Fuel Gauge

Displays the amount of fuel in the tank when the ignition switch is the ON position.

Notice: Poor fuel quality can damage the engine.

To make it easier to start the engine, use fuel intended for winter period in winter.



HODP046

Engine Coolant Temperature

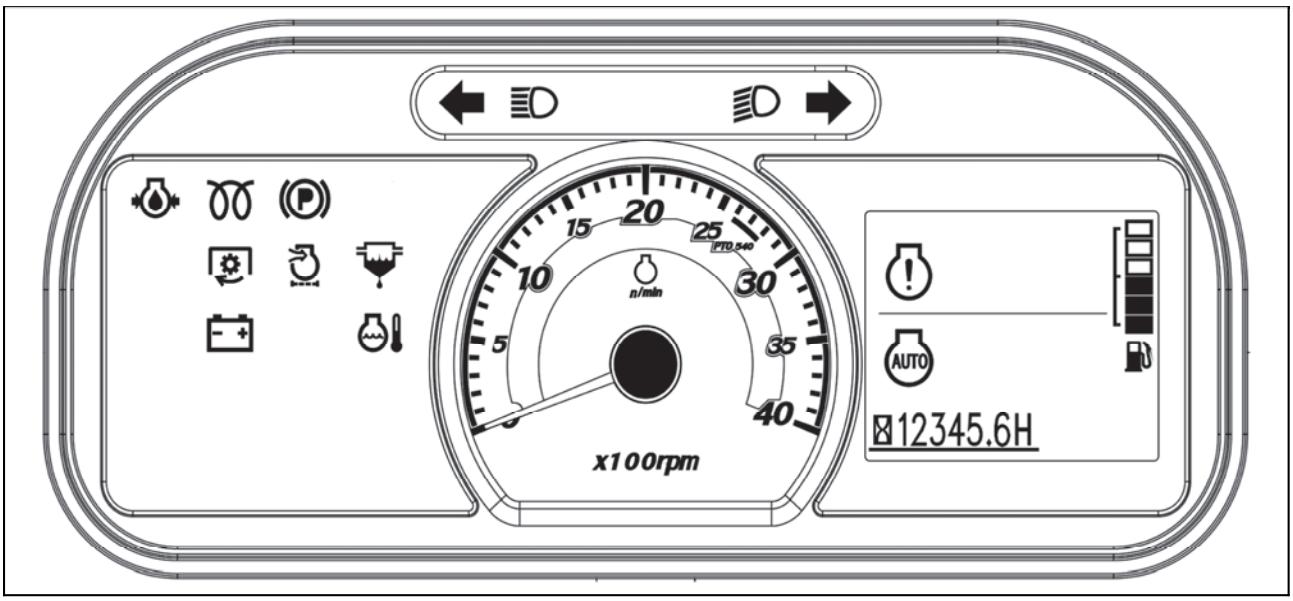
Displays the coolant temperature when the ignition switch is in the ON position.

When this warning indicator light comes on while driving, it means the engine is overheated.

Operating the tractor at increased coolant temperatures can damage the engine.

HODP047

Warning Indicator Lights



Turn Signal Light Indicator Lights

High Beam Lights Indicator Light

Low Beam Lights Indicator Light

Fuel Level Warning Light indicates a low fuel level in the fuel tank.

PTO Indicator Light is on, when the PTO shaft is in operation.

Parking Brake Indicator Light is on when the parking brake is applied.

Glow Indicator Light is on when the preheating function is activated.

Charge Indicator Light is on when the ignition switch is turned to the 'ON' position and goes out when the engine is started. If the charge warning light comes on while driving, the battery is not being charged. Contact an authorized service center for elimination of the fault.

Engine Oil Pressure Warning Light When the oil pressure warning light comes on while the engine is running, it indicates a lubrication system fault. Check the engine oil level immediately and contact an authorized service center, if necessary.

Coolant Temperature Warning Light Stop the engine, wait for the coolant temperature to decrease, check the coolant level, if the coolant starts to overheat again after starting the engine, stop the engine and contact a service center.

Fuel Water Separator Warning Light If the fuel water separator warning light comes on, drain the water from the fuel filter as soon as possible.

Air Filter Contamination Warning Light This light comes on when the air filter is clogged. Open the lid, remove the filter element and clean it with compressed air against the direction of the air supply, or replace it with a new one and clean the inside of the filter.

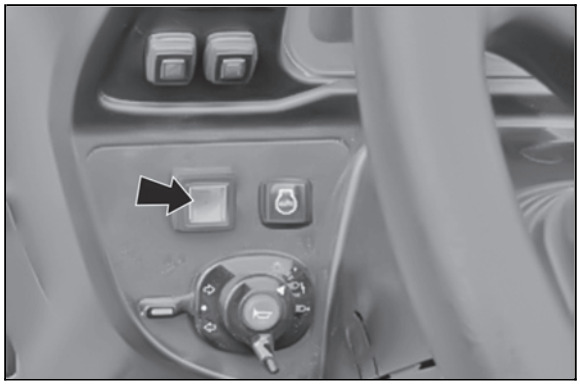
DPF Regeneration Indicator The indicator light is on when DPF regeneration is in progress. Do not perform any work during regeneration.

DPF Warning Light This light flashes when the particulate filter is clogged. When this light flashes, start DPF regeneration using the relevant button.

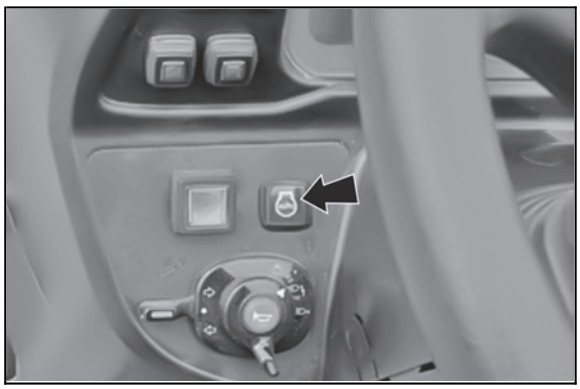
Automatic Fuel Control Indicator This function automatically increases the engine speed when the pedal is depressed when driving forwards or backwards.

Engine Warning Light comes on when there is an engine malfunction.

Speed Limit Switch
When the speed limit switch is pressed, the button indicator light comes on, the speed limit is activated and the indicator on the instrument panel comes on. The speed limit is disabled when this switch is pressed to the OFF position or when the brake pedal is depressed.



Automatic Fuel Control
To activate the automatic fuel control function, press the button to the ON position. Then the yellow indicator on the button and the symbol on the instrument panel come on. By depressing the HST pedal in this state, the vehicle accelerates to the relevant speed level.
To deactivate this function, press this button again. Then the indicator light goes out and this function is disabled.



DPF Regeneration Switch
During tractor operation, the particulate filter becomes clogged with solid particles generated during engine operation due to fuel combustion.
A clogged particulate filter is indicated by a flashing DPF regeneration light and an illuminated engine light. In this case, start regeneration of the DPF using the regeneration activation switch (ACK), whose indicator light also flashes.

 Engine Warning Light

 DPF Warning Light

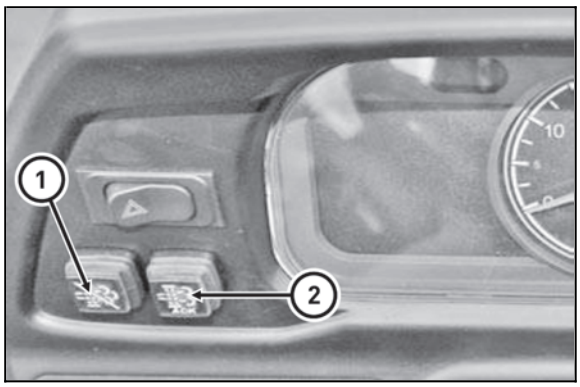
Activation (ACK)

1. Park the tractor on an even surface before performing DPF regeneration. Engage neutral, apply the parking brake and turn off the PTO.
2. Press the DPF regeneration activation button for three seconds. If regeneration of the DPF starts, the engine speed will increase to 2,200 rpm.
3. Regeneration takes approximately 30 - 40 minutes.
4. After successful regeneration of the DPF, the engine and DPF regeneration warning lights go out.

 ***If the parking brake is not applied, the regeneration process will not start and the activation button will flash.***

Deactivation
Press the deactivation button only in an emergency. Do not press the deactivation button when the regeneration process is activated.

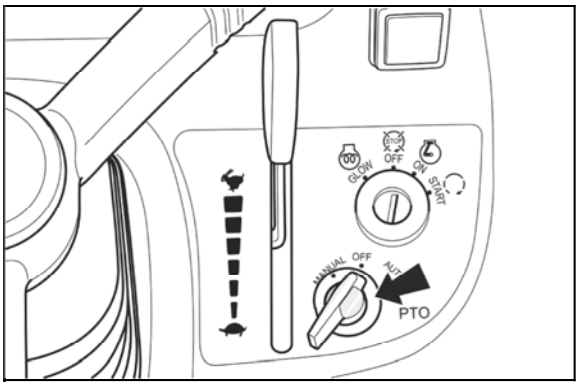
1. Regeneration Emergency Stop Button
2. Regeneration Activation Button (ACK)



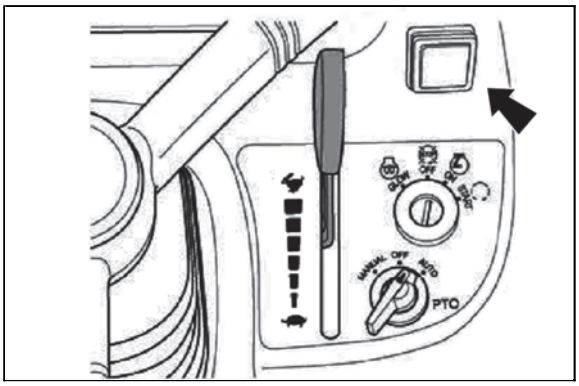
CCLHTN015

PTO Control Switches
PTO Selector Switch
OFF- The PTO shaft is stopped.

Auto -(Automatic) When the implement is raised to the preset height, the PTO shaft stops automatically.
Manual - The PTO shaft rotation status can be controlled by manually switching the PTO switch to the ON / OFF position.

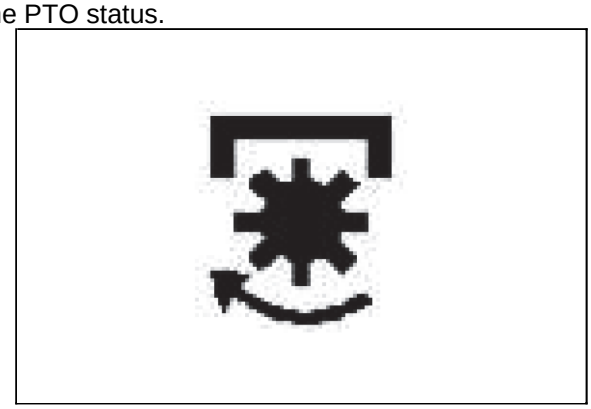


PTO Switch (ON/OFF)
It is used to turn the PTO on/off in conjunction with the PTO selector switch.
ON - Pressing the switch turns on the red indicator light and the PTO shaft rotates.
OFF - Pressing the switch again turns off the indicator light and the PTO shaft stops rotating.



HODP051

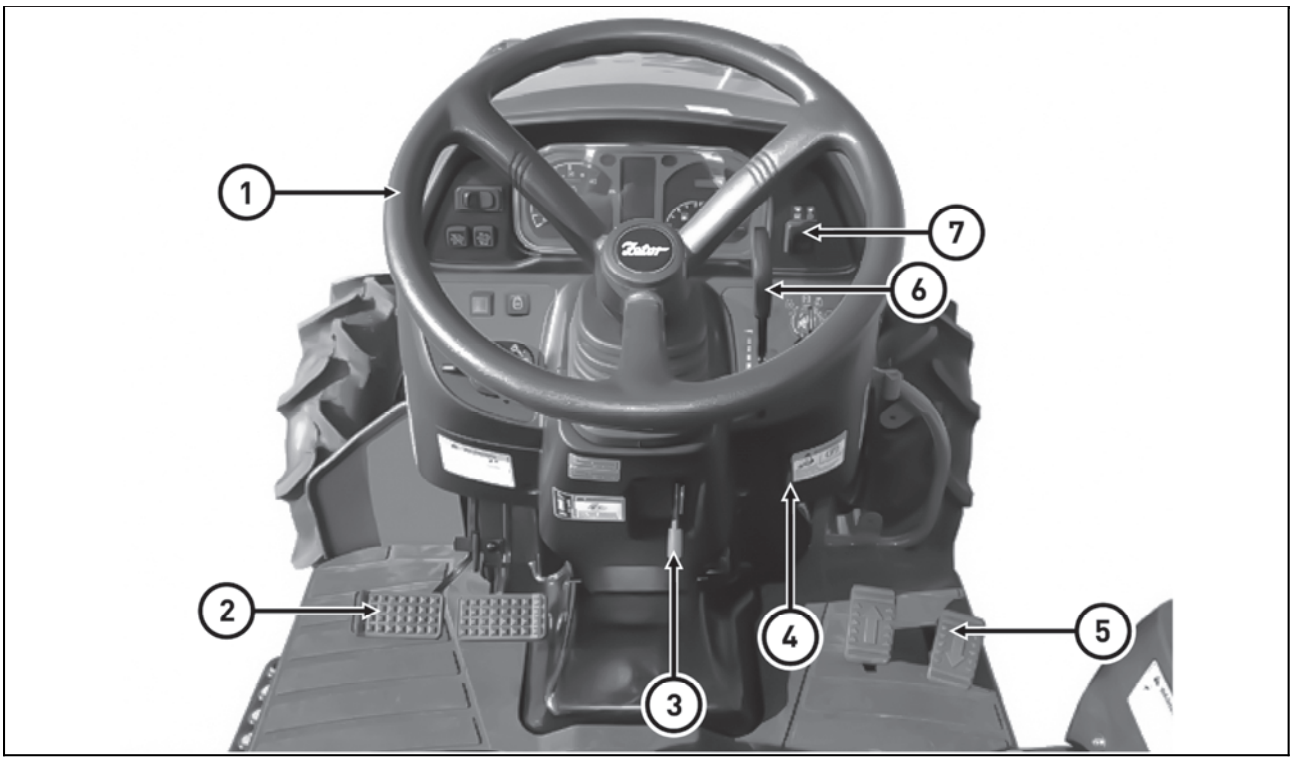
PTO Operation Indicator Light
The PTO indicator light on the instrument panel indicates the PTO status.
1. If the indicator light is on: PTO rotates.
2. If the indicator light is off: PTO is off.



HODP050

TRACTOR CONTROLS

Operation of Tractor Controls

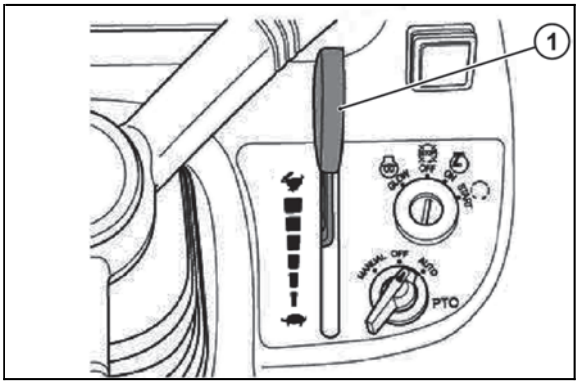


1. Steering Wheel
2. Brake Pedals
3. Steering Wheel Adjustment Lever
4. Parking Brake Lever
5. Travel Direction Pedals
6. Throttle Lever
7. PTO Switch

Throttle Lever (Manual Control)
It is used to set the engine speed.


Pushing (away from the operator): speed increase.

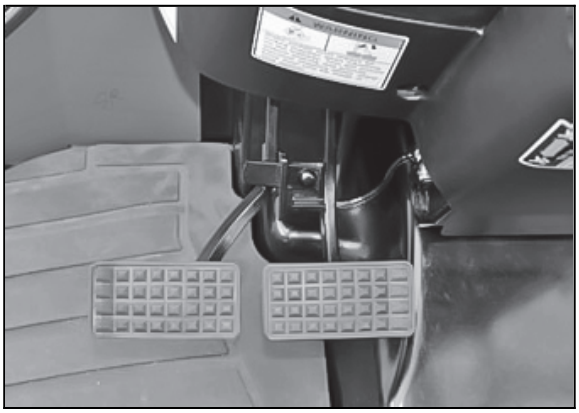

Pulling (towards the operator): speed decrease.



HODP055

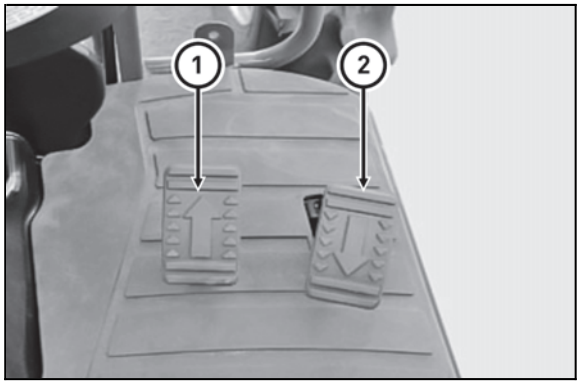
Never use the throttle lever unless you are working in the field. This can lead to increased speed and an accident.

Brake Pedals
The brake is used to force the vehicle to stop. This vehicle is equipped with separate brakes for its left and right side. The right and left brake pedals are designed to assist in turning the tractor in terrain and on unpaved surfaces.
A connecting latch is used to connect the left and right brake pedals.
When the brake pedals are disconnected, the warning light is on. When the brake pedals are connected, the warning light is off.
Driving on the road - Always connect both brake pedals, the brakes are applied simultaneously, the one-side brake indicator light is off.
Working in the field - Disconnect the brake pedals, only one side of the tractor is braking, the one-side brake indicator light is on.



- ***A connecting latch is available to connect the left and right brake pedals when driving at high speed or on the road.***
- ***For safety reasons, always use it on the road or when driving at high speed, as braking on only one side can result in machine damage, serious accidents and serious injury or death.***
- ***During tractor maintenance, make sure that the setting on both sides is the same.***

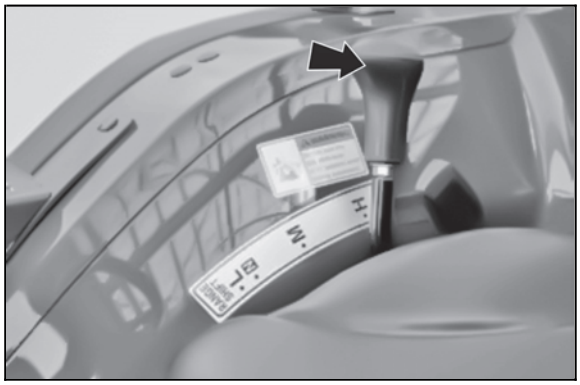
Travel Direction Pedals
Depressing the forward pedal **(1)** selects forward travel.
Depressing the reverse pedal **(2)** selects backward travel.



Parking Brake Lever
1. With the left and right brake pedals connected, depress the brake pedal strongly and pull the parking brake lever, so that the pedals are blocked.
2. To release the parking brake, strongly depress the brake pedal.

The brake discs can wear out prematurely when driving with the parking brake partially engaged.

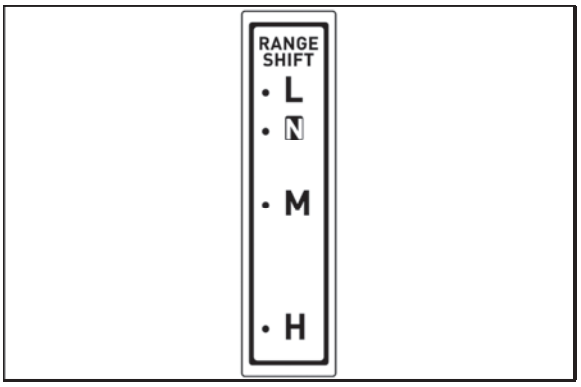
Reduced and Road Gears Shift Lever
Reduced and Road Gears Shift Lever provides three speed ranges. Use it when the tractor is at a complete standstill, with the clutch pedal depressed in conjunction with the gear shift lever to select the appropriate speed for various operations.



CCL3540020

Choose the correct speed range and gear for the relevant task:

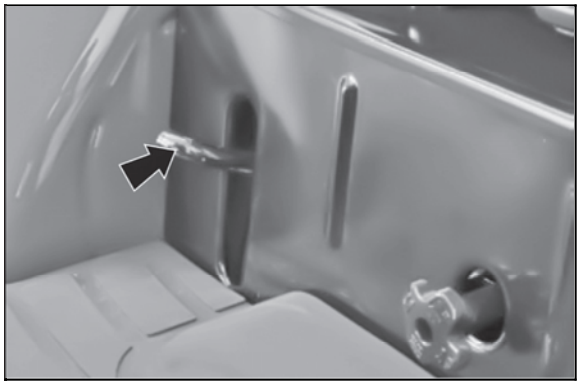
- The machine can work with any gear with an engine speed between 945 - 2,200 rpm. Within these limits, the engine may be subjected to various operations.
- Never overload the engine running at low speed.
- Increase the engine speed according to the expected load. If the engine speed increases slightly while the throttle lever is moved, the engine is not overloaded.



CCL3540021

Only move the range shift lever when the tractor has come to a complete stop and with the clutch pedal depressed. Moving this lever while driving may damage the transmission.
Never use the range shift lever in the 'H' position when reversing. Failure to do so may result in serious accidents or injuries.

Differential Lock Pedal
The differential lock is a device for locking the differential system so that the left and right wheels rotate at the same speed. This function can be used when the rear wheels are slipping.



CCL3540022

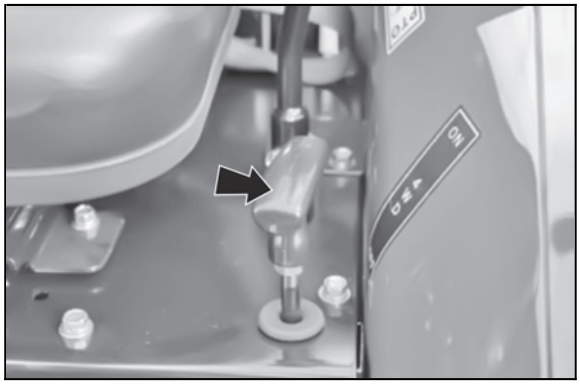
Never use the differential lock at high speed or on the road, as this may cause the machine to roll over and cause injury.

It is difficult to turn the tractor when the differential lock is applied. To prevent damage to the mechanism, turn the differential lock off before turning the steering wheel.

Do not use high engine rpm with the differential lock engaged. If the differential lock is not released after removing the foot from the lock pedal, alternately brake with the left and right directional brake until it is released.

Front Axle Drive Shift Lever (4WD)
Using front-wheel drive improves passability in difficult terrain and the traction of the tractor.

- To engage the front axle drive, pull the shift lever to the 'ON' position.
- To disengage the front axle drive, pull the shift lever to the 'OFF' position.

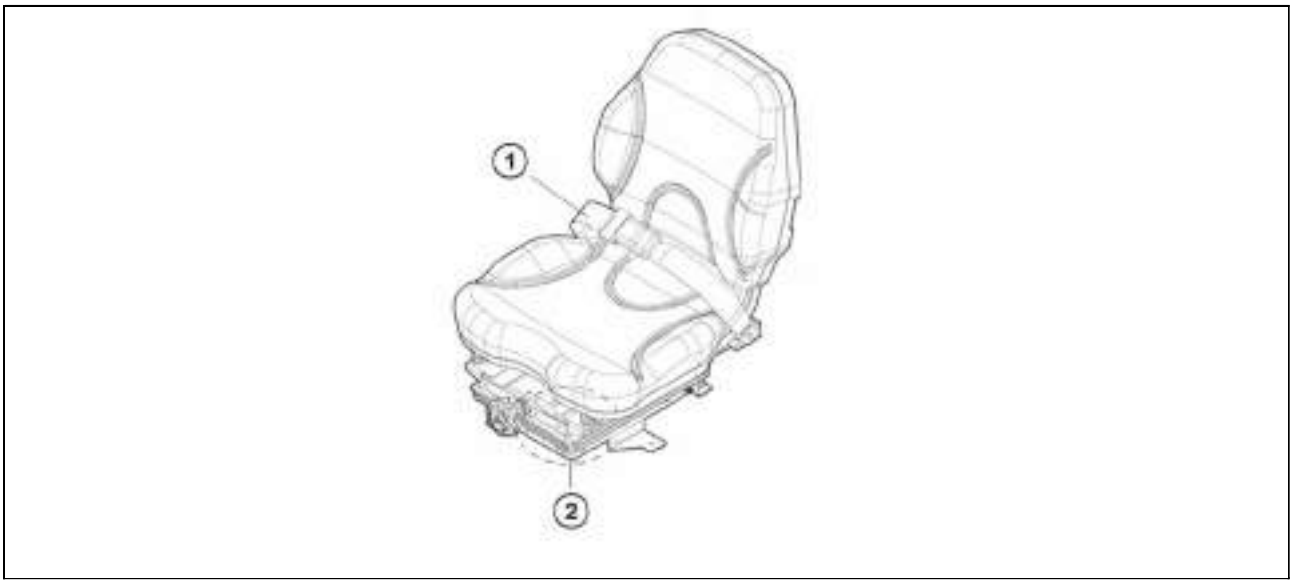


CCL3540023

Stop the tractor before shifting the front axle drive.

If it is not possible to engage the front axle drive, do not use excessive force. Instead, drive the tractor forward or backward slightly and try to engage the lever again.
To reduce tire wear, do not use the front axle drive on the road.

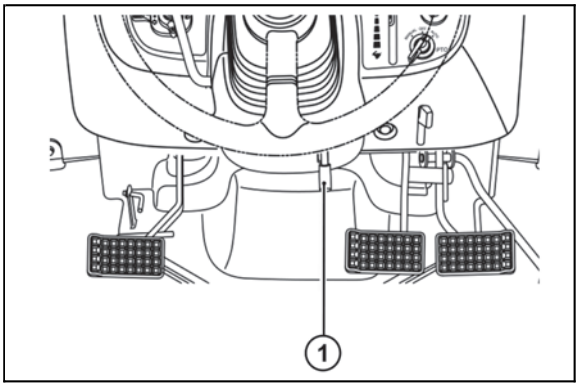
Driver's Seat
1. Seat belt, adjust the length of the belt as needed before driving and fasten it.
2. Seat adjustment, the seat can be adjusted by moving it forwards or backwards by pushing the seat movement lever located on the front of the seat. After adjustment, make sure that the seat is firmly secured.



CCL25004

Steering Wheel Adjustment Lever
It is used to adjust the inclination of the steering wheel to the desired position (3 options).

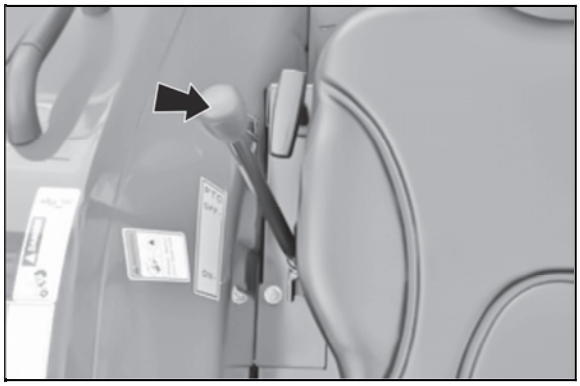
1. Steering Wheel Adjustment Lever



UCL18N028

Before starting the tractor, make sure that the steering wheel adjustment lever is locked.

PTO Shift Lever
To engage PTO, pull the shift lever to the 'ON' position. To disengage PTO, pull the shift lever to the 'OFF' position.

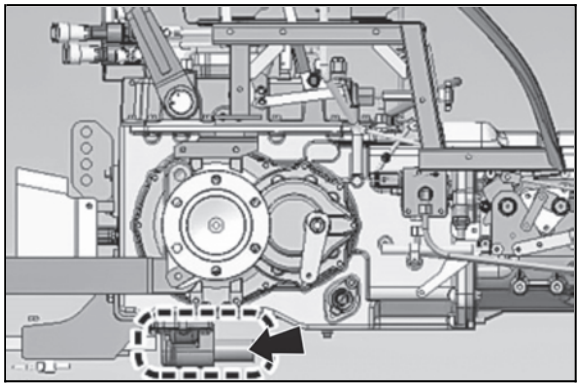


CCL3540024

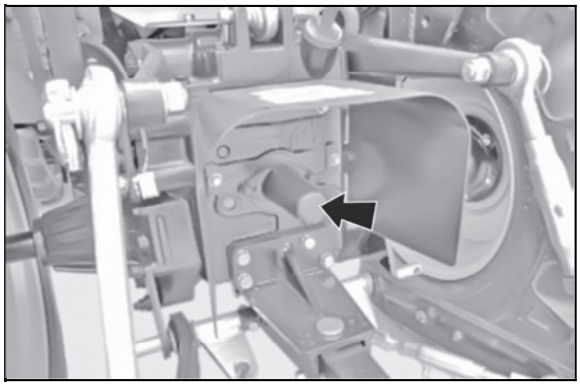
Only move the PTO shift lever with the PTO switched off.
Always use the clutch when connecting or disconnecting the PTO shaft.

Rear PTO	
PTO speed (rpm)	540

Mid PTO
The mid PTO is shifted by the PTO shift lever and its set speed is 2,000 rpm.



PTO Shaft Cover
When not in use, lubricate the PTO shaft with grease and install a cap.

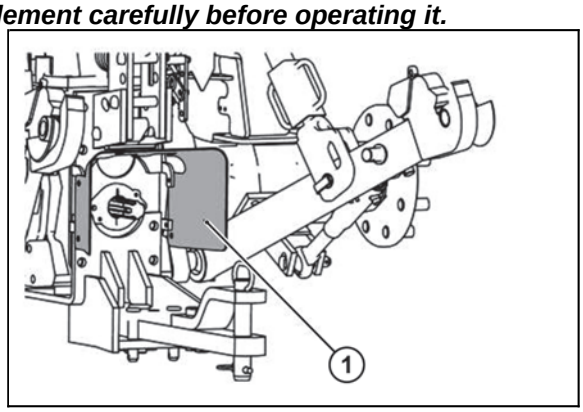


CCL3540025

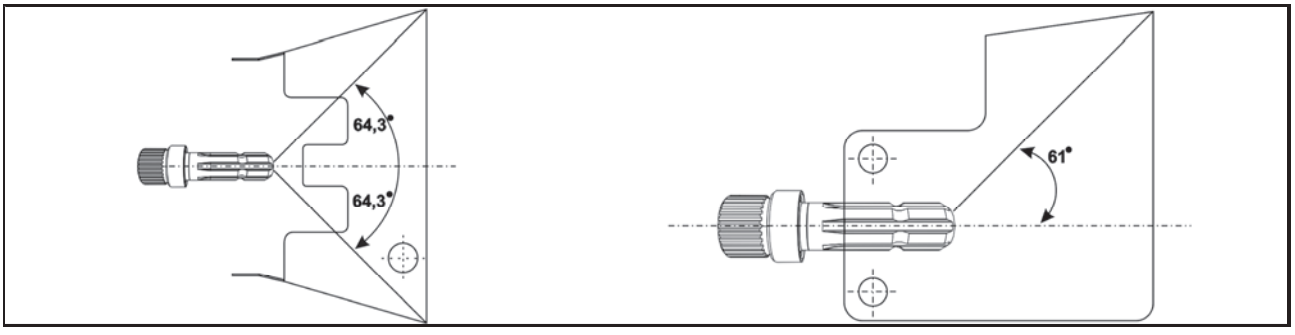
Do not connect the PTO shaft while the engine is running and make sure all protective covers are in place.

Under no circumstances should the rotational speeds specified by the implement manufacturer be exceeded, as this may result in serious damage to the tractor/equipment and serious injuries to bystanders.
Read the operating and maintenance manual of the implement carefully before operating it.

The measures must be taken to ensure that there are not bystanders around the tractor while working with a PTO-driven implement. Rotating blades of the implement can cause serious injuries. When not in use, install a protective cap on the PTO shaft.



U18N055A



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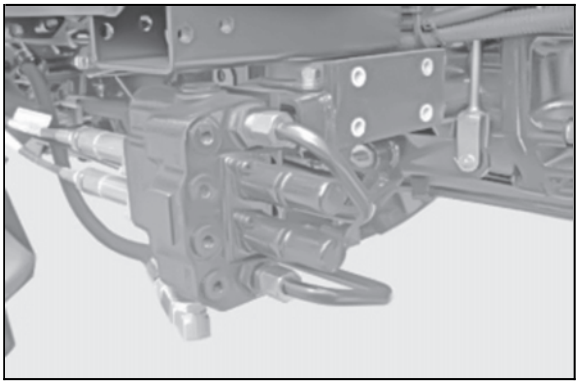
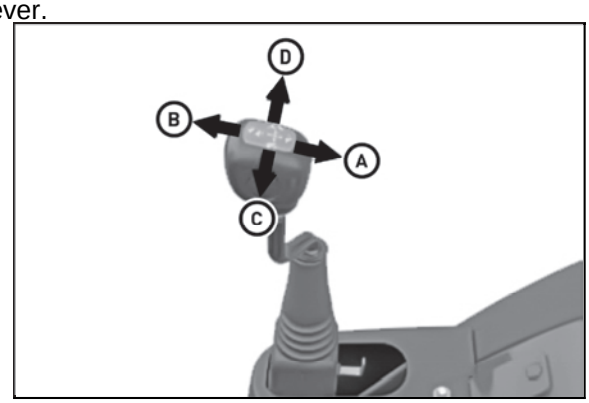
Loader valve and joystick lever
The loader valve is mounted under the step on the right side.
The joystick lever is mounted on the right side of the cab.



CCL3540027

When connecting the loader hydraulics, follow the instructions on the label attached to the joystick lever or loader assembly instructions.
Incorrect loader operation can lead to an accident.

Joystick Lever
To control the front loader or the front three-point hitch, the joystick lever is used. It allows to control the lifting, lowering and unloading of the front loader with one lever.
A - Lifting of the Loader Boom
B - Lowering of the Loader Boom
C - Rolling the Loader Adapter Back
D - Tilting the Loader Adapter Back

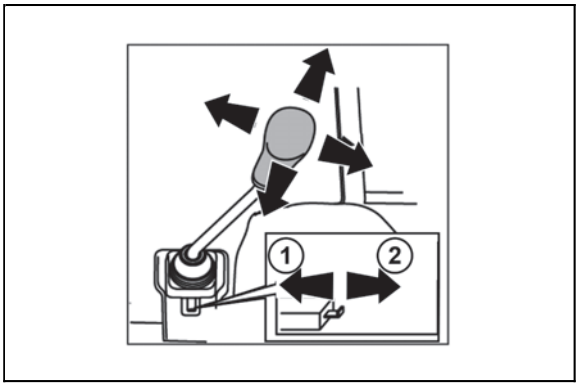


CCL3540028

Do not operate the boom and adapter at the same time, the loader may not work properly due to insufficient oil flow.

Joystick lever lock
With this simple safety system, the joystick can be locked by pressing and unlocked by pulling the control.

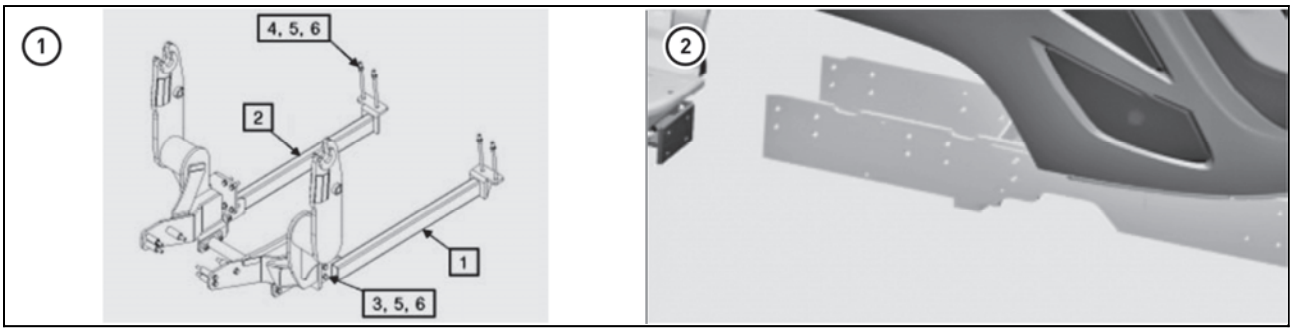
1 - Locking the Joystick
2 - Unlocking the Joystick



U18N040

Whenever the joystick lever is not used, lock it in the neutral position with the lock button. Otherwise, the implement may drop unexpectedly, in case the joystick lever is moved accidentally.

Loader Mounting Points
1. Screw size: M14x P2.0
Number of pcs: 4 (both sides)
Strength: 9T
2. Screw size: M12xP1.75
Number of pcs: 8 (both sides)
Strength: 9T



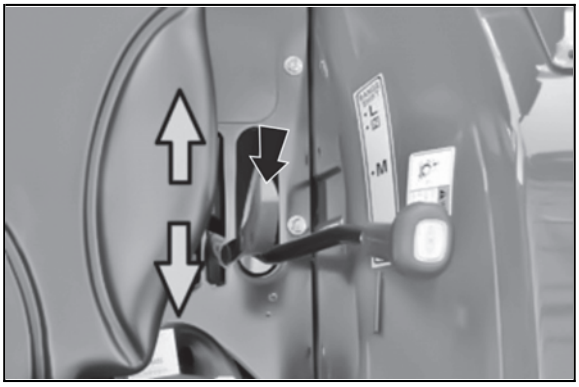
CCL3540061

See the loader manual for more information.

Three-point Hitch Position Control Lever
The implement can be lifted and lowered using the position control lever.

Pull the lever back to lift the implement.
Push the lever forward to lower the implement.

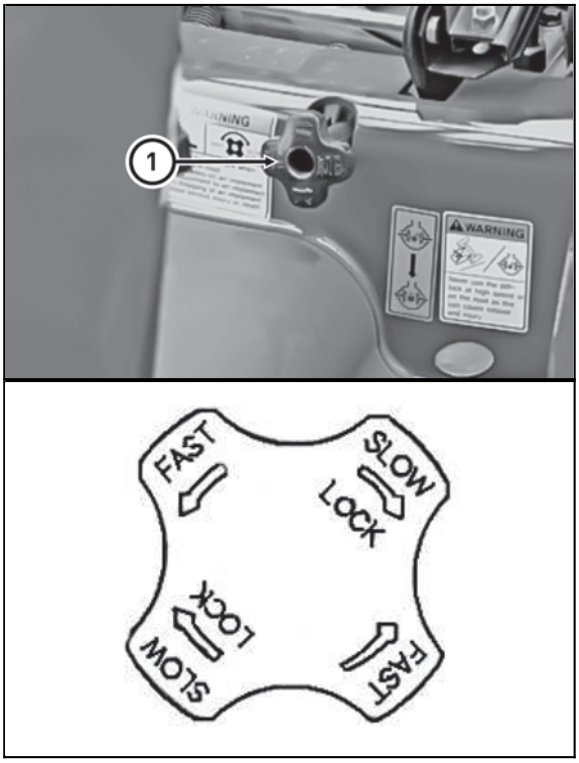
When leaving the tractor, always lower the implement to the ground, switch off the engine and apply the parking brake to prevent injuries and accidents.



CCL3540029

Three-Point Hitch Lowering Speed Control
It is used to set the lowering speed of the implement attached in the three-point hitch. It is located under the driver's seat.

1. Three-Point Hitch Speed Control



HODP074

To reduce the lowering speed of the three-point hitch arms, turn the control clockwise.
To increase the lowering speed of the three-point hitch arms, turn the control anticlockwise.
If the lowering speed control is turned clockwise to the stop, the arms of the rear three-point hitch cannot be lowered.

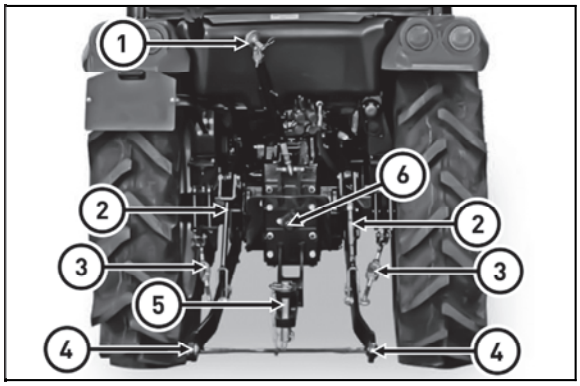
Always lock the control when:

1. **Driving on the road.**
2. **Servicing or maintaining the implement attached in three-point hitch**

External Hydraulic Circuit Lever
Connect the implement connection hose to port **A.**
Operation of **A** lever - Hydraulic pressure is supplied to **A** port of the quick coupler of the external hydraulic valve.

Three-Point Hitch Control

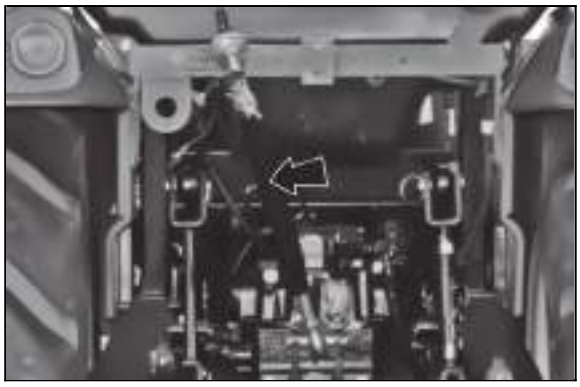
1. Upper Link
2. Lifting Link
3. Stabilizer Bar
4. Lower Links
5. Towing Hitch
6. PTO Shaft



CCL3540030

Upper Link Adjustment

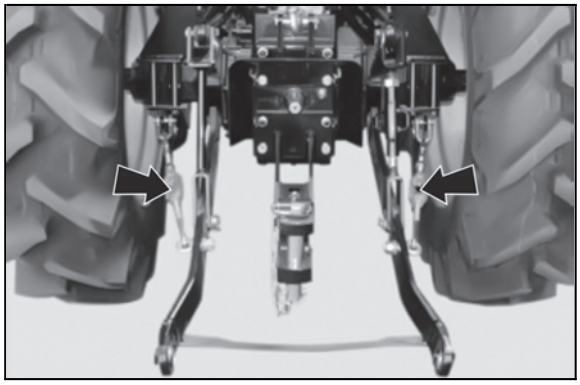
The angle of the implement can be adjusted by lengthening or shortening the upper link.
After adjustment, secure the adjustment lever with its mounting nut.



CCL3540031

Stabilizer Bars

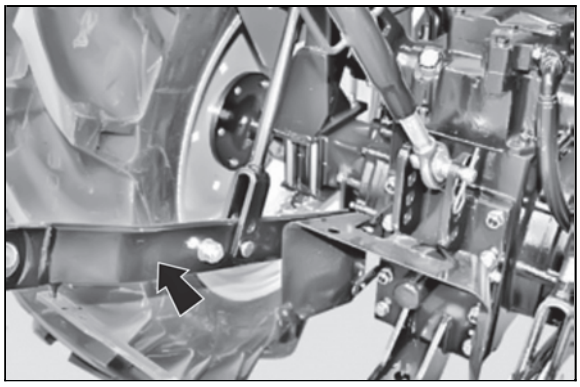
The stabilizer bars are designed to limit or prevent lateral movement of the implement.
The length of the stabilizer bars is adjusted by removing the pin and rotating the turnbuckle nut by which the threaded ends are interconnected.



CCL3540032

Lower Links

They are used for the attachment of the implement.
Category I type is installed



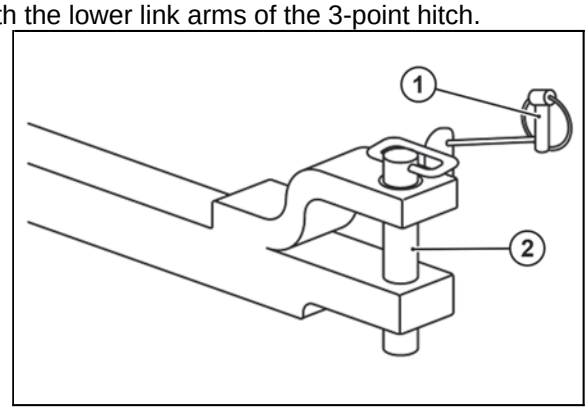
CCL3540033

When no implement is connected, secure the lower links with the stabilizer bars, so that the lower links do not touch the rear wheels.

Towing Equipment

It is used to attach implements with a requirement for the lower hitch. When coupling the implement to the lower swinging hitch, make sure that there is no collision with the lower link arms of the 3-point hitch.

1. Locking Pin
2. Pin



U18N050

Warning:

- ***Always secure the hitch pin with a locking pin to prevent spontaneous disconnection and disassembly of the units, which may result in machine damage, accident, or serious injuries.***
- ***Avoid anyone riding on the swinging hitch.***
- ***For towing, use the lower hitch or drawbar for 3-point hitch, which is adjusted to the height of the lower hitch. In order to keep the operation safe and to maintain the traction capability, it is essential that the front axle is not lifted.***
- ***Incorrect 3-point hitch height adjustment or incorrect mounting can cause machine damage, serious injury or death.***
- ***The front towing equipment should be used for emergency towing of a trailer or for towing a tractor in the yard or an authorized service center.***

Maximum permissible hitch load

Draw bar type	Maximum horizontal load	Maximum vertical load	Rear Tires
T-CD1	6000 kg	500 daN	12,4-24 6PR 41x14.00-20 4PR 12,5-20 10PR

Technically permissible towing weight

Unbraked towing weight	1,400 kg
Inertia braked towing weight	4,000 kg
Independently braked towing weight	N/A

DRIVING OPERATION

Starting the Engine

1. Sit into the driver's seat and make sure the parking brake is applied.
2. Check that all shift levers and the PTO switch are in the neutral position.
3. Set the throttle lever halfway.
4. Depress the clutch pedal. Safety switch is activated.
5. Insert the key in the ignition switch and turn it to the left to the GLOW position to activate the combustion chamber heating. Preheating is indicated by the indicator light on the instrument panel.
6. When the indicator light goes out, turn the key to the ON position and make sure that the indicator lights on the instrument panel are working. Then turn the key to the START position to start the engine.
7. Make sure all warning lights switch off after the engine is started.

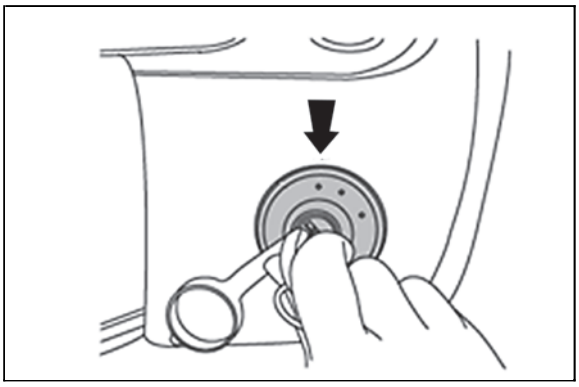
Never start the engine by connecting the starter terminals or with the safety switch deactivated, as the tractor may jump and cause an accident or injury.

Note:

- ***The engine will not start unless the clutch pedal is depressed.***
- ***The engine cannot be started unless the operator is sitting in the driver's seat.***
- ***Do not turn the key to the start position when the engine is running.***
- ***Do not keep the key in the start position for more than 10 seconds.***
- ***If the engine does not start within 10 seconds, wait 30 seconds and try to start again.***

Stopping the Engine

1. Set the engine to idle speed.
2. Turn the key in the ignition switch to the OFF position.
3. Remove the key from the ignition switch.



U18N049

Notice:

- ***After prolonged or hard work, let the engine idle for 5-10 minutes before turning it off.***
- ***Do not stop the engine at high speed.***

Engine Warm-up

After starting the engine, allow it to warm up to operating temperature by letting it idle for 5 to 10 minutes. At the same time, this provides lubrication for all engine components.

If the engine is loaded immediately after starting, it may be damaged.

DRIVING OPERATION

Engine Warm-up in Cold Weather
Cold weather changes the viscosity of the oil, resulting in a reduction in the performance of the engine oil pump, which can cause engine damage if oil is not heated properly.
At the same time, there may be problems with the hydraulic system and synchronization in the transmission.

 ***Make sure the parking brake is applied during warm-up.***
Insufficient warm-up may cause problems or shorten the life of relevant components.
Never idle the engine in a poorly ventilated area. This can cause carbon monoxide poisoning.

Temperature	Idle time
0 °C or higher	At least 10 min
0 ~ -10 °C	10 ~ 20 min
-10 ~ -20 °C	20 ~ 30 min
-20 °C or lower	At least 30 min

Engine Running-in Time
For the initial 50 hours of operation,follow the instructions below.
1. Avoid stopping the engine suddenly.
2. Do not run the engine at high speed or with excessive load.
3. Only drive the tractor when the engine is warmed up to operating temperature.
4. Do not idle the engine at maximum speed.
5. Check all components and replace the prescribed operating fillings after 50 hours of operation, see section Maintenance.

Driving the Tractor Off

1. Make sure the left and right brake pedals are connected when not working in the field.
2. Lift the implement.
3. Move the main shift lever, speed range shift lever, and reverse shift lever to the desired positions.
4. Release the parking brake by depressing the brake pedal.
5. Slowly release the clutch pedal while depressing the fuel control pedal to increase engine speed.

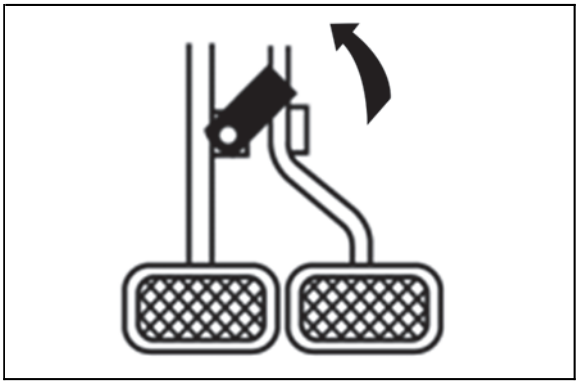
When driving, change gears only with the (main) gear shift lever and always with the clutch pedal fully depressed.

 ***Attention!***

- ***The reverse speed is almost the same as the forward speed.***
- ***Never reverse with the speed range shift lever in H position.***

Turning in the Field

Disconnect the latch connecting left and right brake pedals to allow the use of individual pedals.
To make a tight turn use both the steering wheel and the brake pedal at the same time.
For a left turns use the left pedal and a right turn the right pedal.



U18N050

Only use the brake pedals for turning at low speeds on unpaved surfaces.
At high speeds, the machine can roll over and cause very serious injury or death.
Note that when an implement is installed on the tractor, its overall length will increase. Pay extra attention when turning.

Stopping and Parking

1. Move the fuel control lever to set the engine to low speed.
2. Slowly release the forward travel (HST type) and accelerator pedals (mechanical). Depress the brake pedals for intermittent braking.
3. When the vehicle has stopped completely, move the gear lever to the neutral position.
4. Apply the parking brake.
5. If an implement is attached to the vehicle, lower it on the ground.

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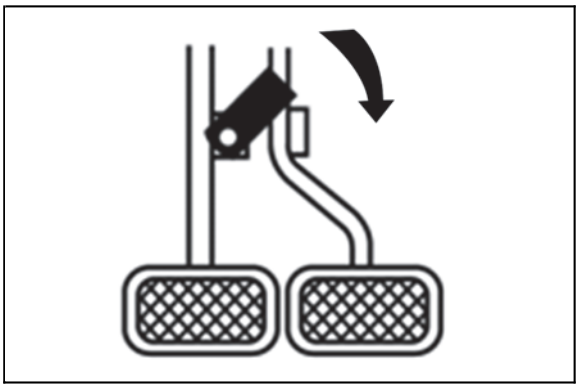
Always use the parking brake when parking.
When parking on a slope, secure the rear wheels with wedges.

Drive Off on Steep Slope

With the pedals connected, depress the brakes and depress the clutch.
Set all gear shift levers to low gears and throttle to medium engine speed.
Release the clutch and release the brake pedals when engaged.
Set the throttle to the required engine speed.



HODP085

DRIVING OPERATION

Driving on a Slope
When driving on a slope, set the main gear shift lever to a low gear to prevent the engine from stopping.

 ***When driving downhill, use the braking effect of the engine. Never set the main gear shift lever to the neutral position or drive with the clutch pedal depressed.***
Keep the speed low when driving downhill.

Driving to / from the Field
Connect the left and right brake pedals.
It is dangerous to enter / leave the field if the field is well below the balk. Use ramps if necessary.
Move perpendicular to the balk.
To use full power, it is recommended to reverse into the field.

 **CAUTION:**

- ***When working in hilly terrain, the risk of machine damage - rolling over and injury - is significantly increased. Environmental conditions must be taken into account.***
- ***When towing trailers and semi-trailers in hilly terrain, make sure that the brakes of these machines are in working order and in perfect condition. To drive down the hill, use the braking action of the engine in combination with a lower gear.***

Warning for Driving on the Road
When changing the direction of travel on the road, always use turn signal lights.
Always keep the brake pedals connected.
When driving at night, switch off the work lights.
Dim the tractor lights when meeting another vehicle at night.
Make sure that the lights are adjusted to avoid dazzling the eyes of the oncoming vehicle driver.
No one but the driver may ride on the tractor.
Follow all applicable regulations and drive safely.

Operating Tips for Power Steering

1. The power steering is only active when the engine is running. Steering wheel operation can be more difficult at lower engine speeds.
2. In the event of a front axle load (loader work, weight aggregation), it may be harder to turn the steering wheel with the tractor stationary. In this case, turn the steering wheel while driving the tractor at low speed.
3. An audible sound is heard when the steering wheel is turned to the end position. Avoid holding the steering wheel in the end positions for a long time.
4. Unnecessary turning of the steering wheel to its end positions (with the tractor stationary) wears out the tires.
5. In winter, warm the engine sufficiently before driving.
6. Repair hydraulic components such as hoses or pipes in a clean environment. Prevent dirt from entering the system.
7. Keep your hands on the steering wheel while driving.

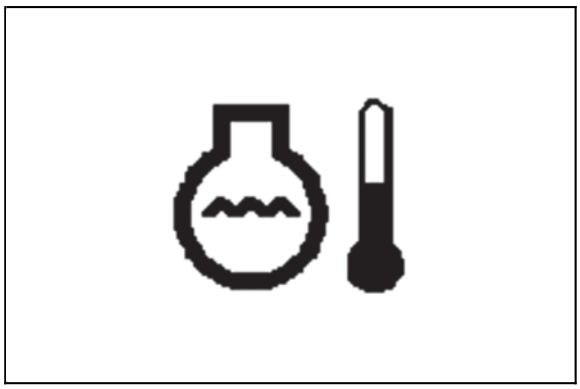
Releasing the steering wheel while driving can result in an accident and injury.

Coolant

When this warning indicator light comes on while driving, it means the engine is overheated.
Stop the engine and allow it to cool, then check:

1. Coolant level in the radiator
2. The radiator fins are not clogged
3. Fan belt tension / damage

If everything is OK, consult your dealer or an authorized service center to find out how to fix the problem.

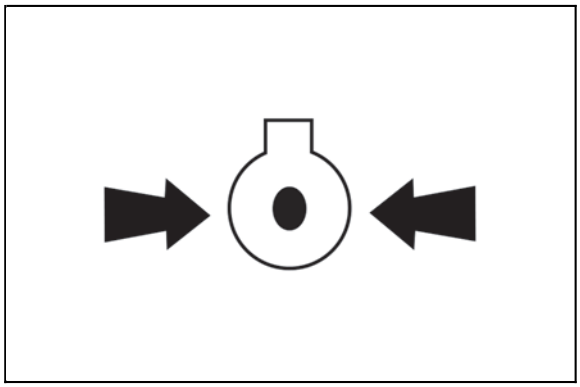


HODP047

Operating the tractor at increased coolant temperatures can damage the engine.

Oil Pressure Light

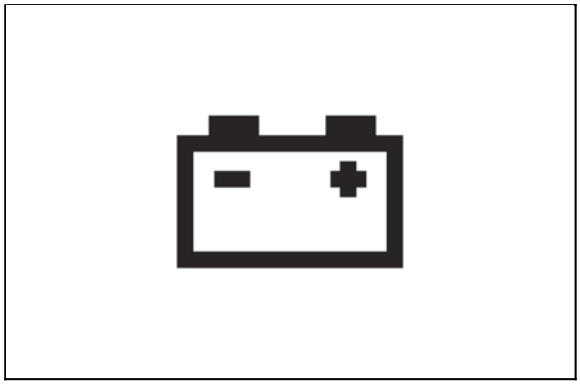
If the oil pressure indicator light comes on, check the oil level first.
If the oil level is correct, ask your dealer / authorized service center to remove the cause of the defect.



HODP086

Battery Charging

If the alternator indicator light comes on, check all connections and make sure the alternator V-belt is not damaged. If all connections and V-belt are OK, consult your dealer or an authorized service center to find out how to fix the problem.

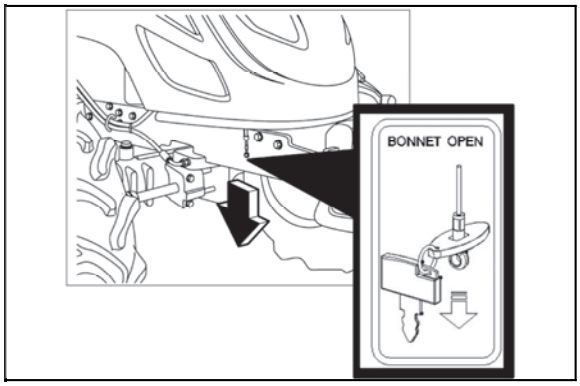


HODP087

NOTES

Hood Opening

Unlock the hood by pulling the locking hook down. Pay attention to the wiring harness of the hood lights.



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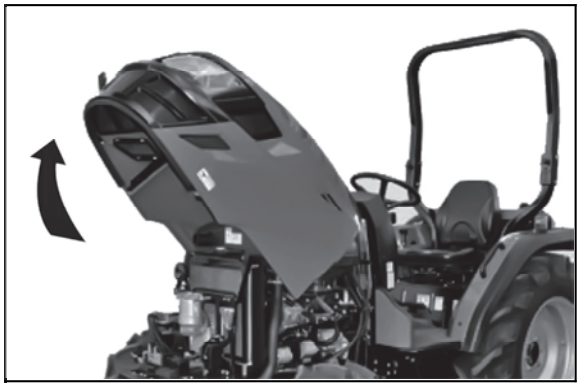
After unlocking the hood, lift it with your hands. The hood is held in the raised position by means of a strut.



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Tractor Lifting

If the tractor needs to be lifted for service, take it to a suitably equipped workshop.
Before performing any work on the tractor, carry out the following work. Engage front axle drive, first gear, parking brake and install wedges under the wheels touching the ground.
Before lifting the tractor, prevent it from swinging with wooden wedges inserted on the front axle.

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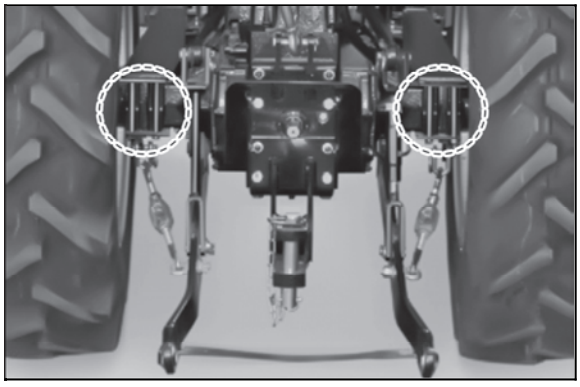
Use lifting equipment of suitable capacity, and place it in the middle of the front and rear axles, paying attention to the weight distribution.
There are no labels on the tractor regarding the position of the lifting points, as it would be very difficult to place them in accessible areas and they would be damaged by operation.



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Position the lifting equipment at the appropriate lifting points according to the type of operation. Follow all of the above mentioned safety procedures.

MAINTENANCE

Service Inspections
Service inspections are performed as follows:
The first service inspection when the hour meter is at a maximum of 50 hours of operation, but no later than within 6 months from the commissioning of the tractor.
The second service inspection after another 450 hours of operation (with a maximum of 500 hours of operation), but no later than 12 months after the first service inspection.
Further service inspections always after another 500 hours of operation, but no later than 12 months from the previous service inspection.

Engine Oil and Filter Change
The first change of the engine oil when the hour meter is at a maximum of 50 hours of operation, but no later than within 6 months from the commissioning of the tractor.
The second change of the engine oil after another 200 hours of operation (with a maximum of 250 hours of operation), but no later than 12 months after the first service inspection.
Further engine oil changes, always after another 250 hours of operation, but no later than 12 months after the previous service inspection.

Performing service inspections is part of tractor maintenance.
Authorized Zetor services will provide you with professional inspections according to the manufacturer's instructions.

Unit	Item	Service interval (hour meter, mark)									Note:
		Daily	50	100	200	250	300	400	500	600	
Engine	Engine oil and filter	o	xx			x			x		Exchange every 250 hours of operation / year
	Fuel filter cleaning / replacement	o							x		
	Coolant	o									Every two years
	Air Filter			o	o		o	o	x	o	
	V-belt		o								Replacement as needed
	Battery			o	o		o	o	o	o	Replacement as needed
	Hoses and clamps					o			o		

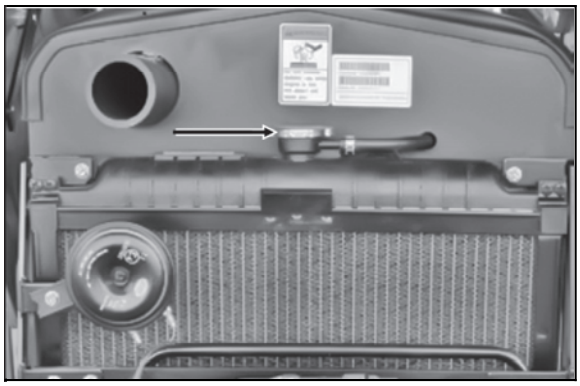
MAINTENANCE

Unit	Item	Service interval (hour meter, mark)									Note:
		Daily	50	100	200	250	300	400	500	600	
Body	Hydraulic oil	o	xx			o			x		Exchange every 500 hours of operation / year
	Hydraulic oil filter		xx						x		Exchange every 500 hours of operation / year
	Front axle oil		xx						x		Every two years
	Convergence					o			o		Clearance 2-6 mm
	Lubrication of all components		o								Every 50 hours of operation
	Brake pedals play	o									Play 30-40 mm
	Tightening wheels	o									
	Fuel control system adjustment					o			o		
	Rubber hoses					o			o		
	Electric lines check		o			o			o		Every year

Table of operating fluids specifications

Filling point	Fluid	Compax CL 35/40 NC
		Volume liters (gal)
Radiator	Clean water with antifreeze	4,8 (1,27)
Engine	Engine oil API class CD SAE 10W30, 10W40	3,2 (0,85)
Transmission	API GL-4 below -20 °C (-4 ° F) ISO VG 32 over -20 °C (-4 ° F) ISO VG 46	35 (9,25)
Front axle	Transmission oil API GL-4 SAE 80W/90	8,2 (2,16)
Fuel tank	Low sulfur diesel EN 590	33 (8,72)

Check and Change of Coolant
Check of Coolant
Remove the radiator cap and check that the coolant reaches the filler neck and is clean. If the amount of coolant is insufficient, top up.



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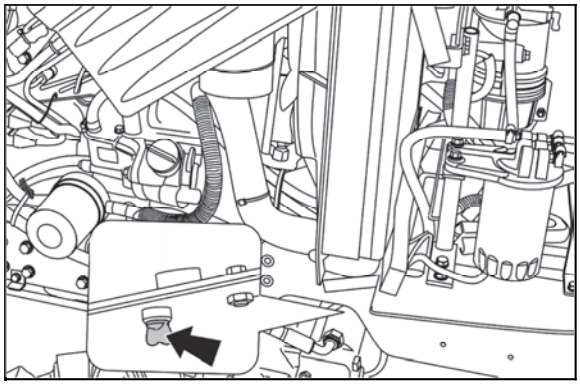
Do not open the radiator cap if the engine is hot. Otherwise, hot steam can cause serious burns. Wait until the engine has cooled down sufficiently.

Change of Coolant
1. Set the heating tap to the open position, open the drain tap.
2. At the same time, open the radiator cap.
3. For thorough cleaning, rinse the cooling circuit with running water.
4. Close the tap and fill the radiator with coolant, i.e. a mixture of water and an anti-corrosion inhibitor or antifreeze solution.
5. Start the engine and let it run for about 5 minutes, check the fluid level again and top up if necessary.



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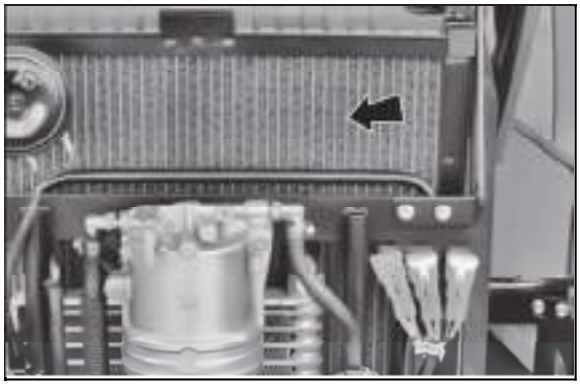
Antifreeze
Frozen coolant can damage the engine.
Flush the radiator before changing the antifreeze.
Mix the antifreeze solution according to the instructions of the antifreeze brand and according to local climatic conditions.
Replace the solution in the cooling circuit.
If the solution is lost due to evaporation or overflow, top up in the original mixing ratio.

If engine coolant gets on your skin, it may cause skin irritation. Wash skin thoroughly with soap and water or hand cleanser.

Check of Radiators for Clogging
After working in a dusty environment, check the radiator fins for clogging. If they are clogged, clean the radiator fins with compressed air or water.

Important: Water or air under high pressure can distort the cooling fins on the radiator and thus reduce the efficiency of the radiator.



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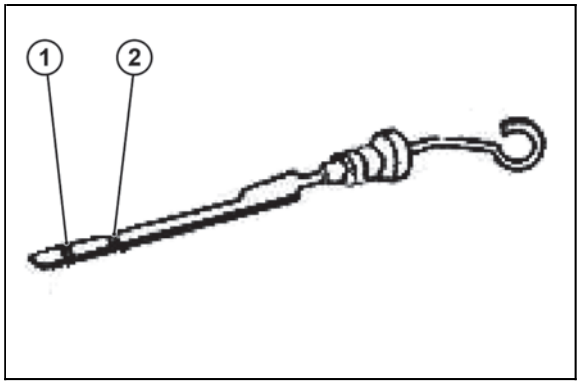
Engine Oil and Filter Replacement
Always use the oil types and classes according to relevant specifications and observe the oil change intervals. (see Tractor Maintenance chapter).

Engine Oil Check
Remove the dipstick, wipe it and immerse in the oil pan. Make sure the oil level is between the upper and lower mark, near the upper mark. If the oil level is not as specified, top up with the specified oil.

1. Minimum Level
2. Maximum Level



HODP096

Engine Oil Change
Park tractor on level surface, shutoff engine. Remove sump plug & drain oil.

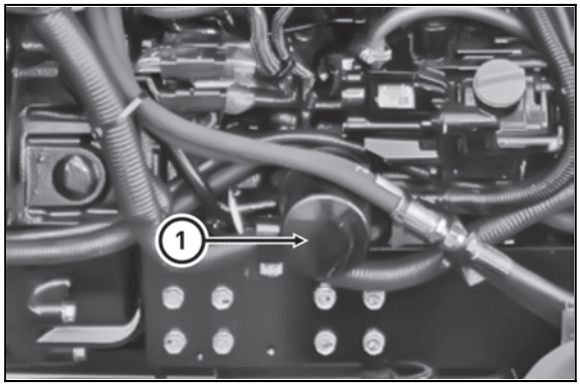
When changing the oil, always replace the filter as well.
Always use the prescribed oil, as using different types of oils or oils with different specifications can cause damage.
At the end of its service life, dispose of the oil in accordance with applicable regulations.
Replace and check the sump plug and refill the engine with oil to the correct level on the dipstick. (Approx. 2.11 gal)

Do not overfill the crankcase with oil.

Engine Oil Specifications
Oil for diesel engines
API class CD, SAE 10W/30, 10W/40

Engine Oil Filter Replacement
Using the oil filter wrench to loosen the filter, turn the filter anticlockwise to remove it. Lightly grease the new oil filter sealing to fix it in the correct position and perfect tightness. Turn clockwise until the sealing reaches the base, then rotate another 2/3 turn to tighten it properly.

1. Engine Oil Filter



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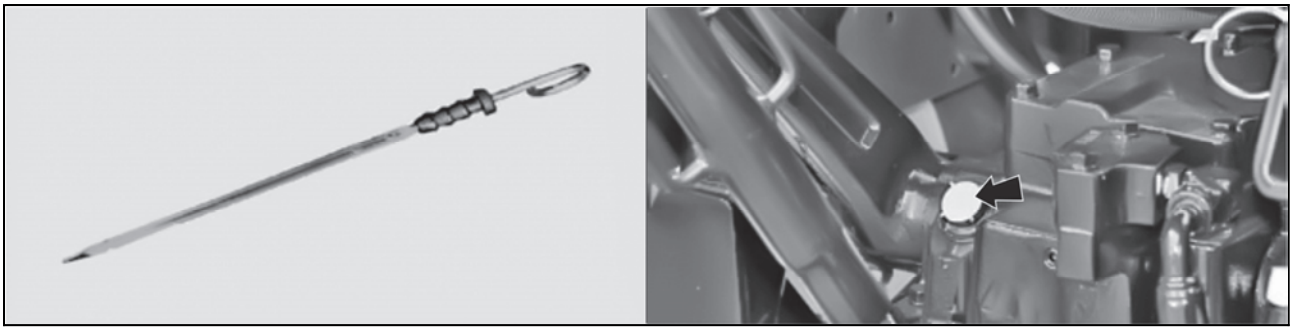
Transmission Oil and Filter Check and Replacement
Transmission Oil Check
Check the transmission oil level with an oil dipstick to see if it is between the upper and lower mark.
If the oil level is not as specified, top up with the specified oil.



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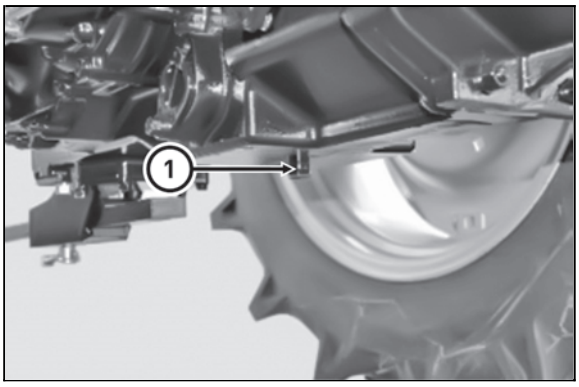
Transmission Oil Change
Remove the drain plug from the bottom of the transmission and drain the oil.
After draining the oil, screw the drain plug back on.
Pour the prescribed transmission oil to the required level through the filling port.

1. Drain Plug



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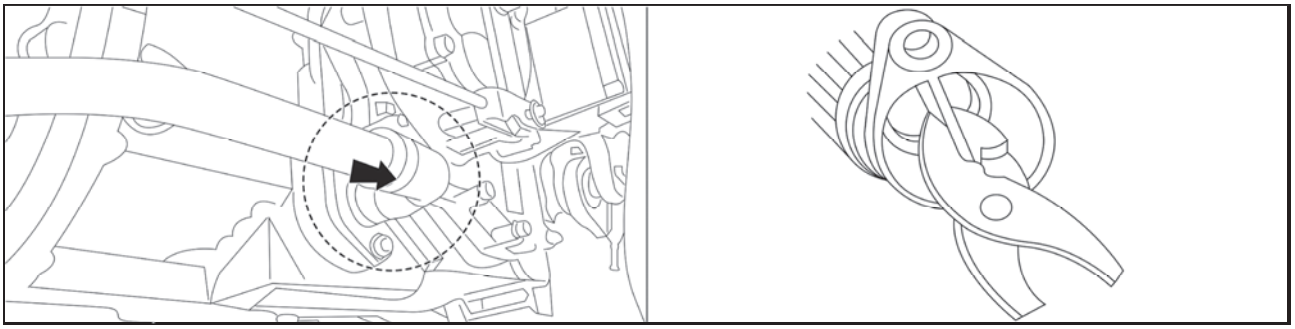
When changing the oil, always replace the filter as well.
Always use the prescribed oil, as using different types of oils or oils with different specifications can cause damage.
Only add the prescribed amount of oil.
At the end of its service life, dispose of the oil in accordance with applicable regulations.

Oil Specifications
API GL-4, below -20 ° C ISO VG 32, above -20 ° C ISO VG 46

Transmission Filter Maintenance
Unscrew the screw attaching the filter housing on the lower rear right part on the gearbox and gently remove the filter with pliers.
When changing the transmission oil, clean the filter with diesel.



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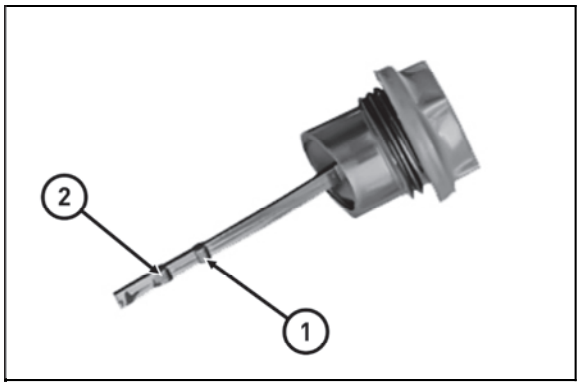
Front Axle Oil Check and Change

Check

Remove the dipstick, wipe its end and insert it back. Then pull it out and check that the oil level is between the upper and lower mark.
In case of lack of oil, top up with the prescribed oil.

1 - Maximum
2 - Minimum



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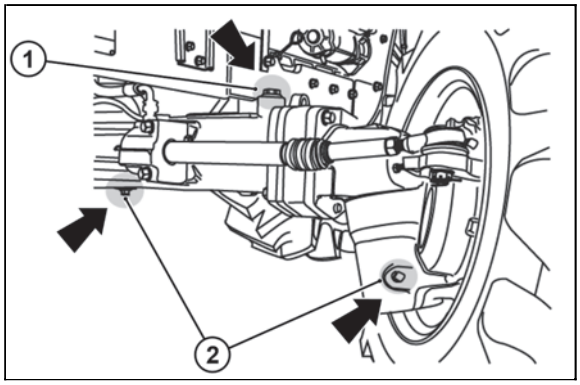
Change

To drain the oil from the front axle, unscrew the drain plugs on the bottom side of the axle and on the left/right reducer.
After draining the oil, screw the drain plugs back and tighten them, check for leaks.
Remove the front axle filler cap and fill with new oil that does not exceed the maximum level indicated by the mark.



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Always use the prescribed oil, as using different types of oils or oils with different specifications can cause damage.
Only add the prescribed amount of oil.
At the end of its service life, dispose of the oil in accordance with applicable regulations.

Specifications

Transmission oil SAE 80W/90
(API GL-4 or higher)

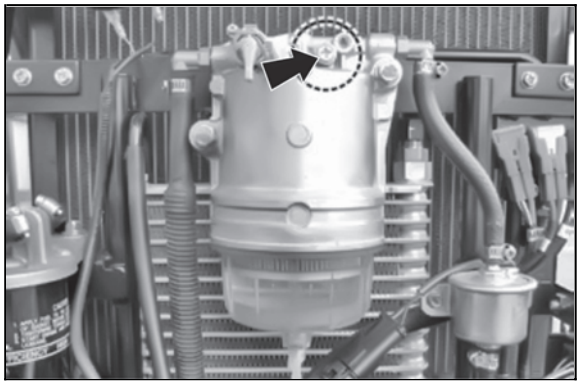
Fuel System
Use only low-sulfur diesel according to EN 590.

IMPORTANT: ***The diesel fuel system is susceptible to dirt and water, so minimize the risk of system contamination.***

Cleaning/Replacement of the Fuel Filter Element
1. Set the fuel filter tap to the 'OFF' position.
2. Remove the fuel filter cap and remove the filter element.
3. Flush the element with diesel to remove any foreign material.
4. Replace a heavily soiled element.

Fuel System Bleeding
The fuel system must be bled:
1. If the engine has stopped due to an empty fuel tank.
2. After replacement of the fuel filter or removal of the fuel line.

Procedure:
1. Unscrew the bleed screw.
2. Start the engine.
3. Tighten the screw when clean fuel flows out of the bleed screw.
4. If the system is not completely vented, repeat this procedure.



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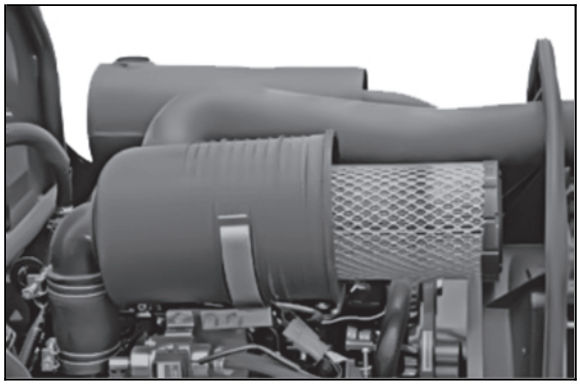
Air Filter Check and Maintenance
Perform air cleaner maintenance:
- Daily when working with front-mounted machines or in a dusty environment
- Every 100 hours of operation

Cleaning the Vent Valve
Remove the valve and remove dust and other dirt from inside it, using a dry cloth.

Notifications for Air Filter Check and Maintenance
1. Use the specified filter replacement parts.
2. Thoroughly remove dust from the cover.
3. Mount it firmly so that dust cannot enter under the cover.
4. Never drive with the element and the fine filter removed.

5. Do not shake the element to clean it, use compressed air. Blow the filter element against the direction of air flow into the engine. Be careful not to tear the filter element by air pressure.



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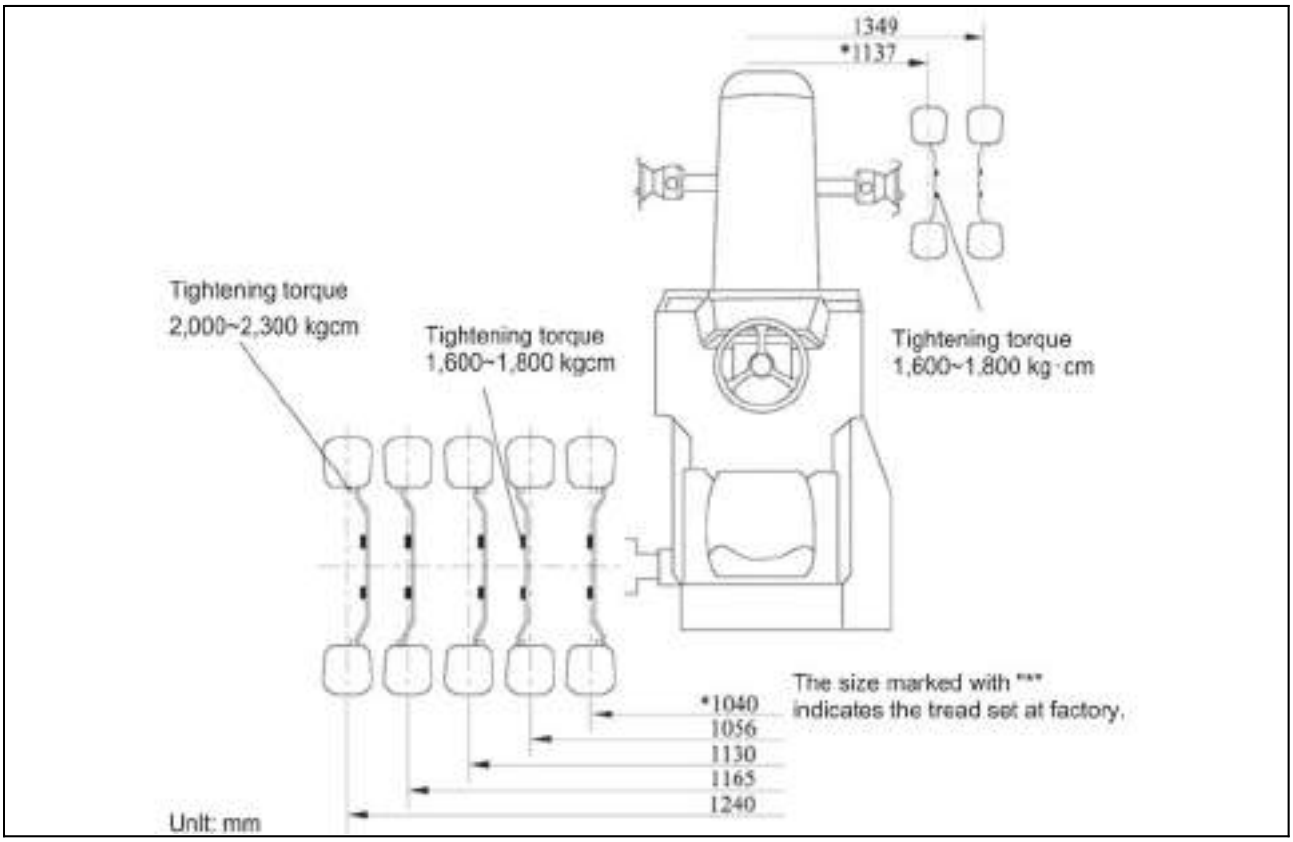
Replace the element after cleaning five times or if it is damaged.
Never clean the filter element by hitting it against a solid surface.
When reassembling, make sure all surfaces are properly sealed to prevent dust from entering.

Wheel Tread Setting
The front wheel track can be set in two positions. The rear wheel track can be set in four positions as shown in the figure.



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After adjusting the wheel tread, the width and turning radius of the vehicle change.

Greasing the Tractor
Grease the tractor according to the service schedule.
Ensure that grease nipples are cleaned well before any attempt is made to grease them.

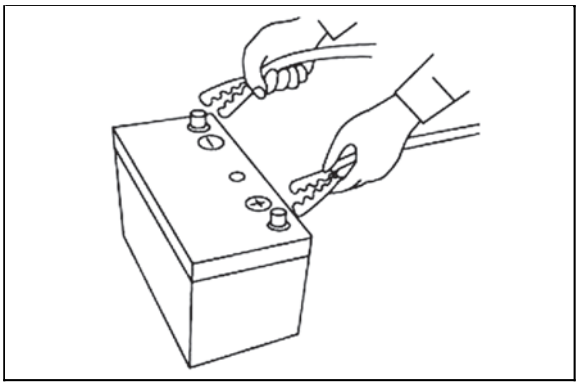
Lubrication of the Brake Levers
Remove the rubber caps on the floor and at the steering column to gain access to the lubrication points. Top up the grease with the supplied grease pump.

Electric System Check
Battery Check and Charging
Low temperatures affect battery performance, so pay special attention to them in winter.
Remove the battery and store it in a cool, dry place before prolonged shutdown.
If the battery remains in the tractor, disconnect the negative terminal.
If the batteries are not used for a long period of time, they will self-discharge.
If the battery contacts are oxidized, clean them with sandpaper or a steel brush.

Battery Specifications
12V 80AH

Battery Charging
1. Turn the ignition switch to the 'OFF' position and remove the battery from the tractor.
2. Recharge the battery in a well-ventilated area.
3. Avoid charging the battery with a large charging current.

4. Properly connect the charger cables to the negative and positive terminals of the battery.
5. When using the charger, its charging current must be below 10 A.

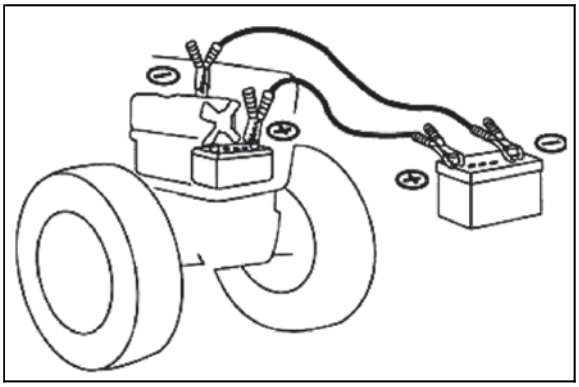


UCL18N076

Charge the battery only in a well-ventilated area.
The battery produces highly flammable hydrogen gases that can explode. Keep flammable objects and sparks away from the battery.
The electrolyte contains acid which can cause severe burns.

If the electrolyte battery gets in your eyes or on your skin, rinse them thoroughly with water. If swallowed, drink plenty of water and seek medical advice immediately.

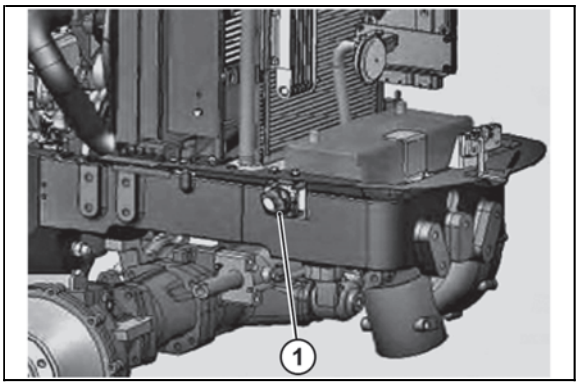
Start with the Other Vehicle
1. Switch off all electrical appliances.
2. Use a connecting cable to connect the positive terminals of battery of vehicles.
3. Use a connecting cable to connect the negative terminal of a standard battery to the tractor engine case with the discharged battery.
4. First start the engine of the vehicle with the charged battery. Then start the tractor engine with the discharged battery.
5. When the engine is started, disconnect the negative cable first. Then disconnect the positive cable.
6. After starting the engine, charge the discharged battery for about 30 minutes.



HODP136

Battery Disconnector
Turn the knob to "OFF" to disconnect the battery and back to "ON" to resume normal operation. The battery disconnect knob 1 is located on a bracket to the right of the battery. Putting the battery disconnect in safety condition The battery disconnect knob may be removed for safety purposes in the manner described below.

1 - Knob



HODP137

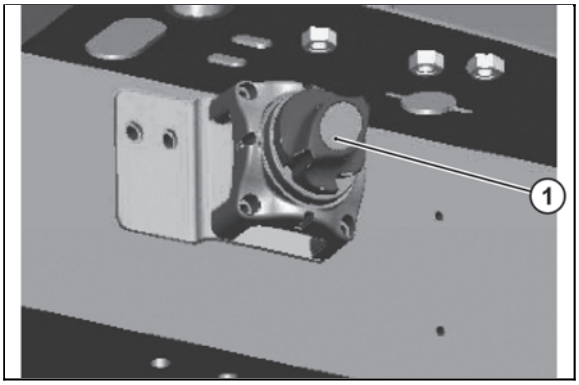
The function of the battery disconnection switch is to disconnect the supply voltage from the electrical system by interrupting the connection to the battery. The main benefits of this solution are:

1. Short circuit protection of the electrical system;
2. Reduction of the battery spontaneous discharge, especially when the machine is shutdown for a long time;
3. Maintenance and repair work in safe conditions.

Removal of the knob

1. Turn the knob to the "off" position; the knob cannot be removed in this position.
2. Press the knob in and continue to turn it counter-clockwise as far as it will go.
3. Remove the knob.

1 - Knob



HODP138

Refitting the knob

1. Refit the knob
2. Press and turn the knob clockwise, positioning it at 45°

Electric Lines Check

Loose wire terminals can cause contact break and damaged wires can lead to poor electrical operation, short circuits and fire. Replace or repair worn and damaged wires.
If the insulation of any conductor is damaged, wrap this conductor with insulating plastic tape or replace it.
If the conductor clips or straps are damaged, secure the wires with new clips or straps.
Have the lines checked regularly once a year by an authorized service center to prevent fire.

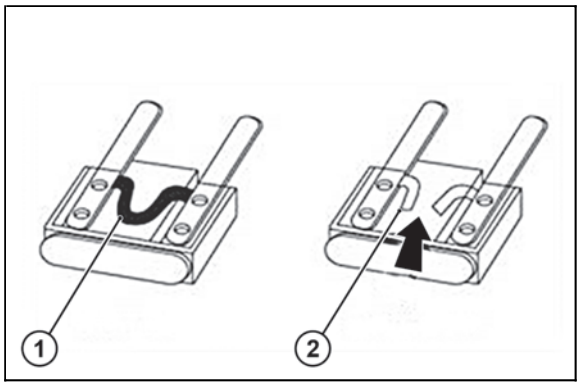
Fuses Check and Replacement

Fuses are installed in this tractor to prevent any possible accident in the event of a malfunction of the line circuit.

CCL3540050

If an electrical system does not function correctly while driving, check for a blown fuse:
1. Remove the fuse box cover.
2. Remove the blown fuse.
3. Insert a new fuse of the same rating.
4. The function and rating of each fuse is indicated on the fuse box cover.

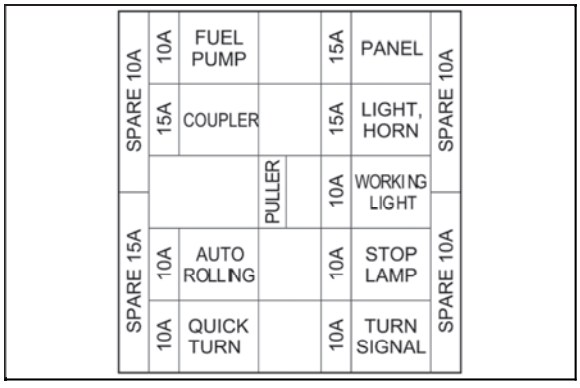
1 - Normal condition
2 - Blown



HODP141

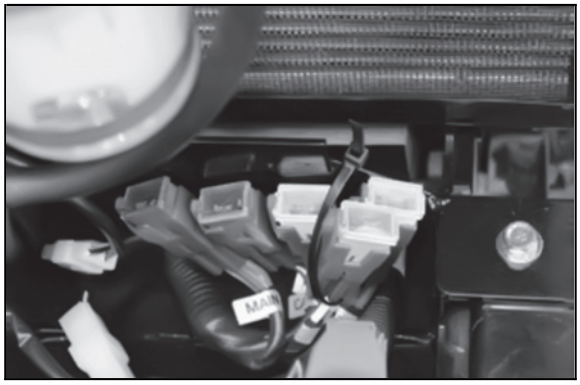
Always eliminate the cause of the fuse blowing, otherwise a new fuse is likely to blow as well. Always use a fuse of the specified rating, never replace a blown fuse with a higher fuse rating or a wire.

Fuse Panel



Large Capacity Fuses 50A

This tractor is equipped with three main line fuses. If the fuse blows, the entire circuit does not work. Identify and eliminate the cause of the blown fuse and replace the defective fuse with a fuse of the same rating.



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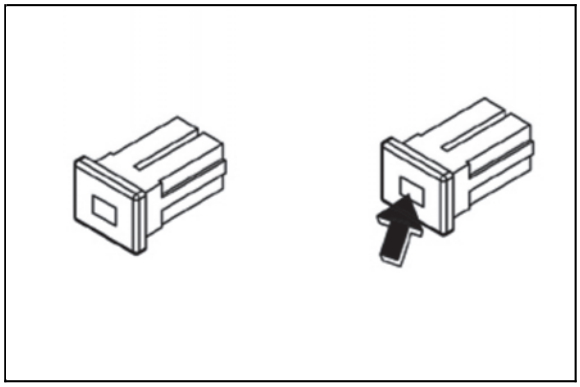
Check the fuse through the transparent window.



CCL3540052

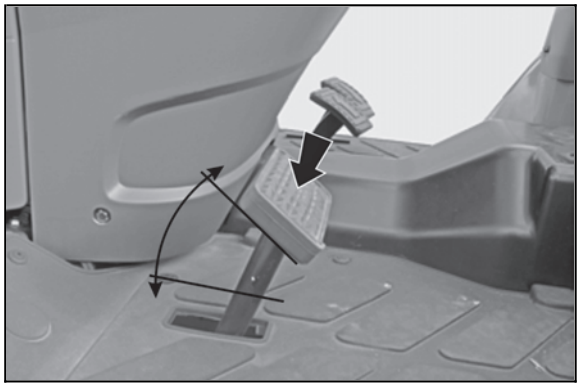
Light Bulbs List

Bulb	Specifications
Headlights	H4 12V 50W/40W
Front turn signal lights	12V 21W
Rear turn signal lights	12V 21W
Front position lights	12V 5W
Brake and position lights	12V 21W/5W
Instrument panel lighting	12V 3.4W
Rear work lights	12V 25W

Brake Pedal Play Adjustment

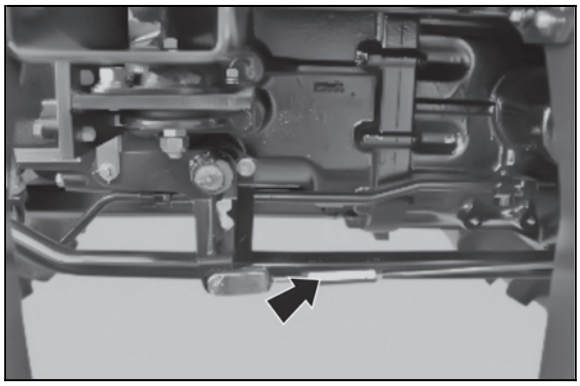
Slowly depress the pedal to check the play.

Brake Pedal
30 - 40 mm (1.18 - 1.57 in.)



Brake Pedal Check and Adjustment

The operation changes the brake pedal play, as well as the alignment between the right and left pedals. The correct play of the brake pedal is 30 - 40 mm.
In case of excessive play or pedals asymmetry, adjust the brake pedals.



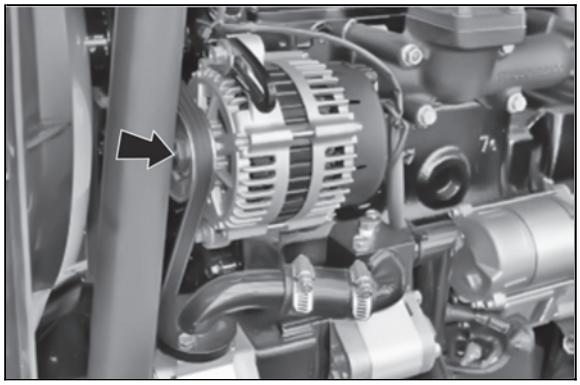
CCL3540054

Adjustment:
1. Unscrew the lock nut and turn the adjusting nut to adjust the play.
2. Turning counterclockwise increases the play, while turning it clockwise decreases the play.
3. After adjustment, tighten the lock nut firmly.

Caution:

- ***Uneven adjustment of the left and right pedal will result in one sided braking when the pedals are connected and can cause serious accidents, especially at high speeds.***
- ***Double check to ensure free play is the same on both pedals.***

V-belt Check and Adjustment
Regularly check and adjust the fan V-belt tension.



CCL3540055

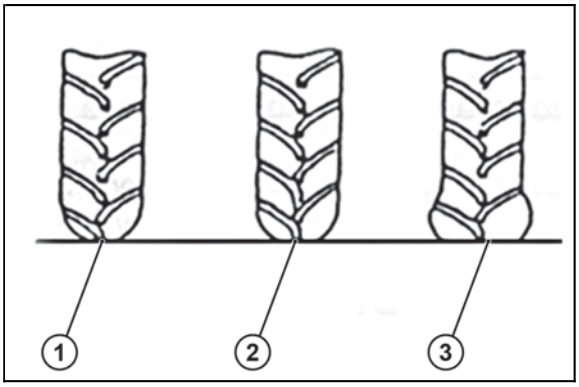
1. Slightly loosen the alternator mounting screw and adjust the tension by sliding the alternator.
2. Check belt tension. Press the middle of the belt with a weight of 6 - 7 kg (13.23 ~ 15.43 lbs).
If the belt bends by 7 - 9 mm (0.28 ~ 0.35 in.), its adjustment is correct.

Hoses and Connections Check
Fuel lines, radiator hoses, hydraulic and rubber hoses are consumables that degrade with age and use. Check them regularly and replace defective ones.
1. Carry out the check with the engine sufficiently cooled down.
2. Check fuel lines, coolant hoses, and other rubber hoses for damage or leaks. Replace, if necessary
3. Check the tightening of the clamps.

ATTENTION: ***Damaged fuel lines leak and may cause fire.***
Damaged radiator hoses can cause hot water burns and, in severe cases, damage the engine.

Tire Pressure
Tire pressure has a direct impact on tire life and its off-road characteristics.
Check the tire pressure visually before using the tractor, see the enclosed picture.

1. Over-inflated Tire
2. Correct Inflation
3. Under-inflated Tire



HODP104

IMPORTANT: ***We recommend to check the tire pressure with a pressure gauge and not rely solely on a visual tire pressure check.***

Permissible wheel combination for tractors

Tire	**Standard**
	Specifications
Front (R1 / Agricultural)	8-16 4PR
Rear (R1 / Agricultural)	12.4-24 6PR
Front (R4 / Industrial tires)	27X10.5-15 8PR
Rear (R4 / Industrial tires)	12.5X20 10PR
Front (R3 / Turf tires)	27X10.50-15 4PR
Rear (R3 / Turf tires)	41x14.00-20 4PR

MAINTENANCE

Service Prior to Daily and Short Terms Storage
Wash the tractor and keep it clean.
Refuel the fuel tank to avoid condensation in the tank and corrosion of the fuel system.
Lower the attached implement to the ground before parking the tractor.

For Daily or Short Term Storage
Clean the tractor and remove all dirt.
Refuel the fuel tank to avoid condensation in the tank and corrosion of the fuel system.
Lower the power tool to the ground.
Park the tractor in a dry area with roof, if this is not possible we recommend covering the tractor with a solid material such as foil or tarpaulin. In very cold conditions, it is advisable to remove the battery and keep it in a warm environment to ensure functional starting. If the outside temperature is less than 32 °F (0 °C), replace the coolant completely or drain the coolant circuit to protect the engine from damage with frozen coolant.

 **IMPORTANT:**

- ***When washing the tractor, make sure that water does not enter the tractor's electrical system or fuel and lubrication system.***
- ***To prevent short circuits remove the ignition key.***
- ***Do not wash the tractor when the engine is running.***

Long-term Shutdown
If the tractor will not be used for a long time, perform the cleaning as for the short term storage.
Drain and change the oil. Start the engine for approx. 5 minutes to refill the engine with new oil.
Drain the coolant from the radiator and remove the ignition key. Attach the 'NO COOLANT' sign to both the key and the steering wheel. If there is antifreeze in the cooling circuit, there is no need to drain the coolant.
Lubricate all lubrication points on the tractor.
Check pressure in tires, if necessary overinflate them slightly due to the machine being stationary for a long time.
Lower all attached implements on the ground or disconnect the unit if necessary.
Disconnect the clutch using the clutch release arm.
Place a wooden support under each tire to preserve its characteristics.
Refuel the fuel tank to avoid condensation in the tank and corrosion of the fuel system.
Recharge the battery every 2 months during long-term storage.

 **Important:**

- ***After refilling the engine with the coolant run the engine for approx. 5~10 min. at 1,500~2,000 rpm every month as a corrosion prevention measure.***
- ***Either removes the battery or the negative terminal as mouse damage to wiring can cause short circuits and fires.***
- ***Remove the ignition key and store in a safe place.***

Re-use After Long Term Storage
Carry out a full check of all oils and coolant.
Refit the battery and run the engine at idle for 30 min. to ensure optimum engine life.

CABIN SYSTEM

Main Features

The cab fully complies with international safety and soundproofing standards.
The cab can be provided with ventilation, heating and air conditioning system.
The cab is available in the following versions:

- The cab with ventilation and heating system
- The cab with ventilation, heating systems and air conditioning.

 **Caution:** ***When transporting heavy loads (Exceeding the weight of the tractor) reduce the speed under 15 Km/h (9.32 m/h).***

 **CAUTION:**

- ***The cab is fully compliant with international standards regarding its soundproofing.***
- ***Be very careful when working in small spaces and with specific (noisy) implements and protect your hearing by using appropriate protective equipment.***

 ***ATTENTION: Remember that steering, braking and operating performances are influenced by tractor load and attached implements (mounted / semi-mounted machines, trailers and semi-trailers).***

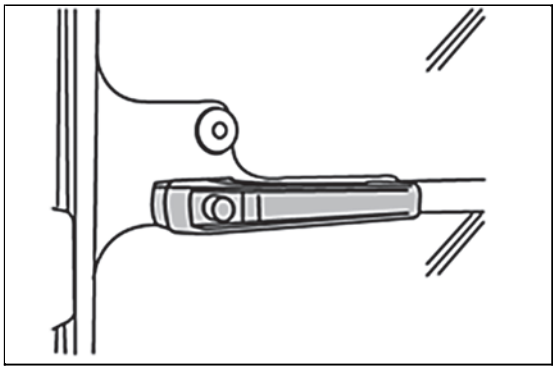
 ***ATTENTION: Each connected implement / equipment must be correctly attached and secured according to the operating instructions.***

 ***ATTENTION: Be very careful when attaching or removing implements. Make sure the supports and struts are in the correct positions and secured before disconnecting the machine.***

Instrument and Related Parts

Doors

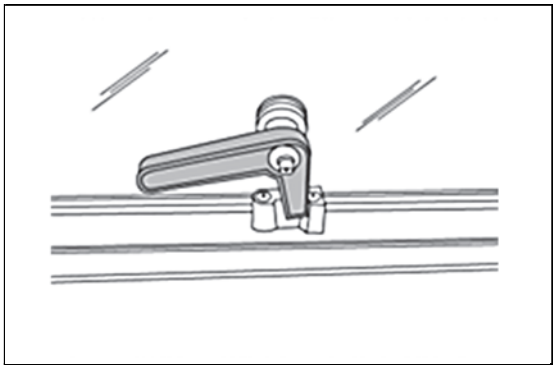
The doors are provided with key locks.
To open from the outside, when unlocked, depress the push button.
To open from inside, push the lever downwards.



HODP146

The rear window is fitted with central handle for opening.
When opened it is held in place by two dampers.

Rear Window



HODP147

Work Lights

The work lights are located on the cab roof (two at the front and two at the rear). They are switched on using separate switches on the roof console.

CCL3540056

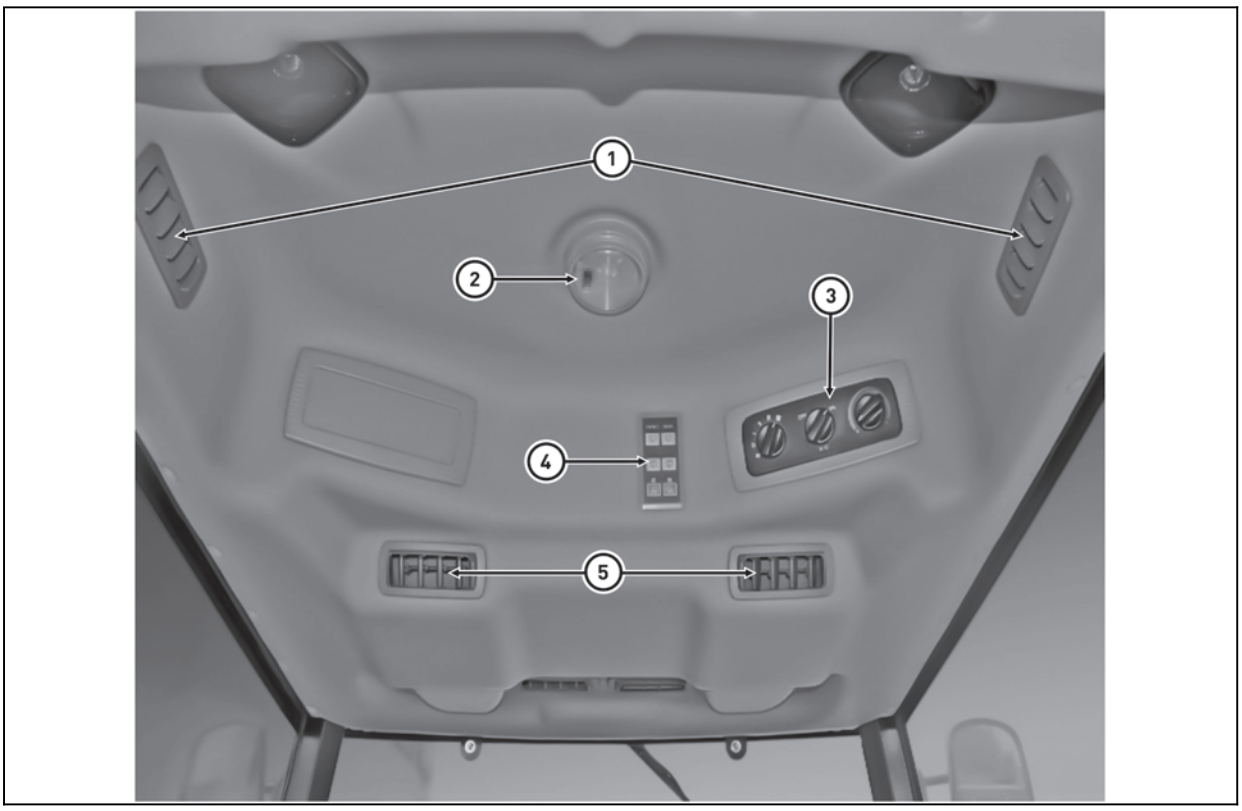
Rerarview Mirrors

The cab is provided with rearview mirrors on both sides. They can be adjusted and folded, whenever necessary, to avoid interference with external obstacles.
The mirror have a telescopic arm to allow positioning for maximum convenience by the user.
Remember that mirrors must always be positioned in compliance with road traffic regulations when driving on a public highway.

CABIN SYSTEM

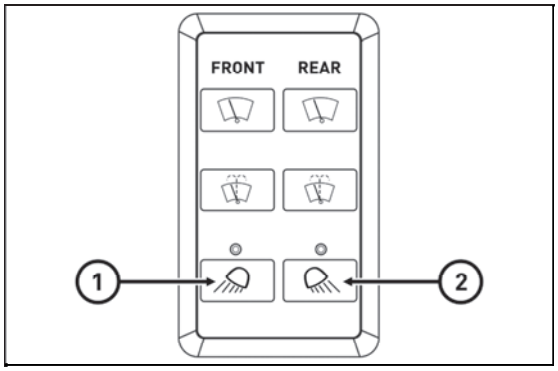
Cab Cailing
The ceiling is padded with insulation material to prevent heat radiation enter the cab and keep the temperature down when working in very sunny areas.
The cab floor is covered with a fixed carpet.
It is recommended to keep the floor clean for the operator to enter and exit the tractor safely.

1. Recirculation Inlet
2. Interior Lights
3. Heating and Air Conditioning Controls
4. Work Lights Switches
5. Heating Vents



CCL3540057

Work Light Switches
The front and rear work lights come on when the corresponding button is pressed. The indicator light indicates that the relevant light is on.



CCL3540058

Wiper Control Switch

Press the button - 'ON'

- Wind screen wiper operation.
- Continuous pushing button op- erates wiper and washer pump.

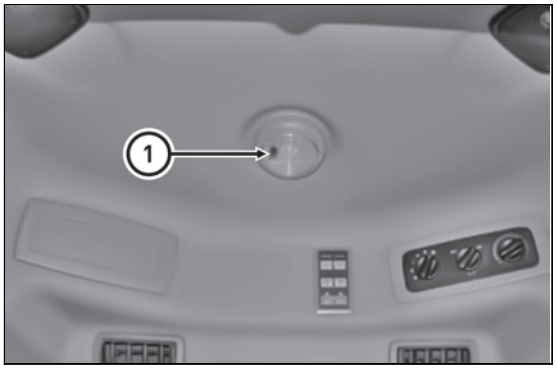
Pressing the button again - 'OFF'

- Wind screen wiper ''Off'' and operates washer pump.

Windscreen Washer Tank
Regularly check the windscreen washer fluid level in the plastic container located at the rear of the tractor.
During the winter, it is recommended to add suitable antifreeze or methyl alcohol to the windscreen washer fluid.

Interior Lamp
Push the button to light on and push it again to light off.

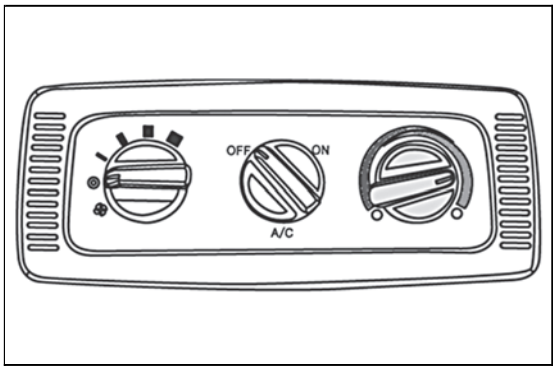
1 - Interior Lamp



CCL3540059

CABIN SYSTEM

Heating / Air Conditioning
The heating and air conditioning control panel is located on the cab ceiling in the right part.
It consists of a fan control, air conditioning switch and temperature control.



HODP155

Fan Switch
The fan can be switched on in four speeds using a rotary switch.

Temperature Control
Set temperature control as required, fully clockwise.
For maximum cool and fully counterclockwise for heat.

HODP154

Air Control Switch
The fan must be turned on to operate the air conditioner. The fan speed control and all air vents must be adjusted to achieve the best possible interior cooling performance.
Under normal operating conditions and with doors and windows closed, the cab temperature is reduced by 6 °C to 15 °C (10 °F to 25 °F) compared to outside temperature. When operating the air conditioning system, the air humidity level of the cab interior is reduced.

Note:

- **During cold weather, with ambient temperature above 32 ºF (0 ºC) operate the air conditioner at least once per month, for a period of 10 to 15 minutes. This will lubricate the seals to prevent them becoming brittle and help prevent the loss of refrigerant from the system.**
- **The system is equipped with an environmentally safe refrigerant, R134a. Never recharge the air conditioning system with refrigerant other than R134a as this will result in loss of cooling and permanent damage to all air conditioning components.**

Ventilation
The ventilation unit is housed in the cab ceiling.
To switch it on and adjust it, turn the electrical fan switch to the desired speed.
The cab becomes slightly pressurized when the ventilation system is in operation, so that the fresh air can enter only by way of the filter installed in the rear section of the cab roof.
The fan switch can be operated only after the ignition key is inserted.
The air flow can be regulated and directed by suitable positioning the air diffusers.
Air can be taken in fresh from outside or recirculated from within the cab by way of the relative side inlets.

CABIN SYSTEM

External Circulation
The air is supplied from outside the cab through the rear grille and filtered through a cab filter located behind the grille.

*N.B: It is very important that the air diffusers never be completed closed so as to allow for a steady air flow. To obtain a greater pressurization inside the cab, it is necessary to take the air from the outside, therefore the inside air recirculatiing grille should be fully closed.

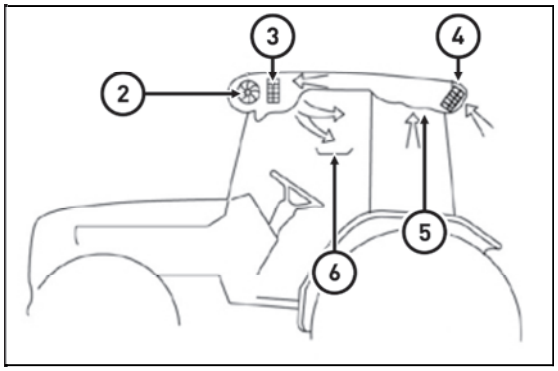
Cab Air Circulation Switch
To recirculate the cab air, open the recirculated air inlets on the side of the cab ceiling.

Heating System
The heating is switched on and set by turning the rotary knob on the roof console, then by switching on the fan and setting the selector to the preferred speed.
To warm up the cab quickly, the rotary knob must be turned clockwise to the stop and the fan must be set to the highest speed.
The windscreen can be demisted and defrosted by air directed through slotted vents. All other ventilation openings must be closed for defrosting or quick demisting.

Important:

- ***Ventilation is provided by a single blower unit serving both the heating system and the air conditioning system.***
- ***After reaching the desired temperature adjust the system to suit your needs.***

2. Heating Fan
3. Electric Heating Element
4. Air Filter
5. Recirculation Inputs
6. Air Vents



CCL3540060

Note: ***For ideal system operation, the engine must run at 1,000 rpm.***

WARNING:

- ***Before starting the engine, make sure that the system is off (by turning the fan off) to avoid overloading the battery.***
- ***After long operation of the system at full power, never switch it off suddenly, but let it run for about 20 seconds lightly loaded, switch off the heating and let the system cool down.***

Heating System
The heating system consists of two units:
1. Heating and fan unit installed behind the roof console.
2. Power supply kit, consisting of an auxiliary alternator located in front of the engine and driven and connected by a belt directly to the engine pulley.

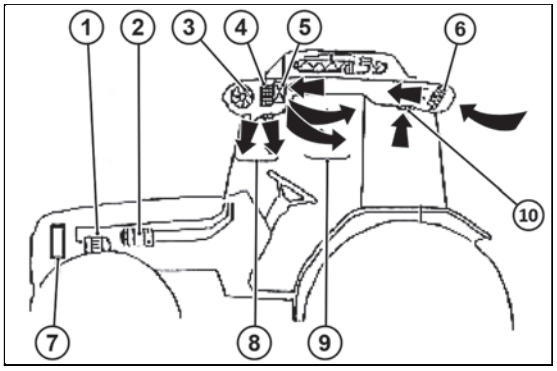
*N.B: Never turn on the heating system when working in dusty environments.

If air does not come out of the diffusers as soon as the system is switched on, switch it off immediately and identify the fault.

CABIN SYSTEM

Air-conditioning System
The system is designed to provide optimum temperature inside the cab, maximum operator's comfort and safety.
Any repairs and servicing of the system should be carried out in an authorized service center.
Do not approach the system with open flames, as any escape from the circuit may produce explosive gas.

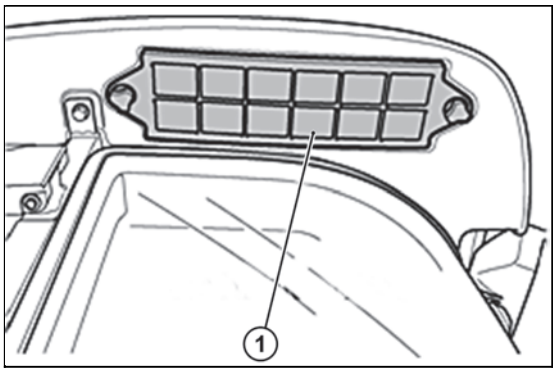
1. Alternator
2. Air Conditioning Compressor
3. Fresh Air Fan
4. Electric Heater
5. Evaporator
6. Cab Filter
7. Condenser
8/9. Air Vent
10. Air Recirculation Flap



HODP159

Cab Filter
The paper filter element is not suitable for the treatment of pesticides and must therefore be replaced with an activated carbon filter. Once the treatment of pesticides has been completed, the activated carbon filter must be replaced by a paper filter suitable for normal operation.

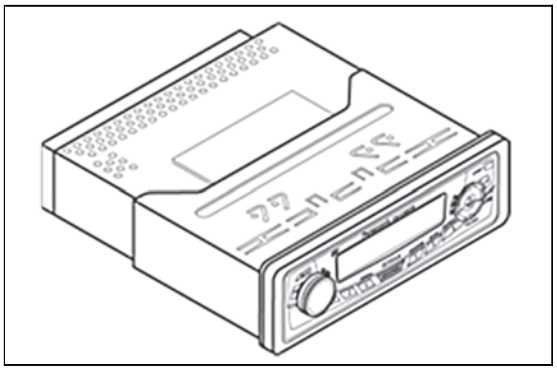
1 - Cab Filter



HODP161

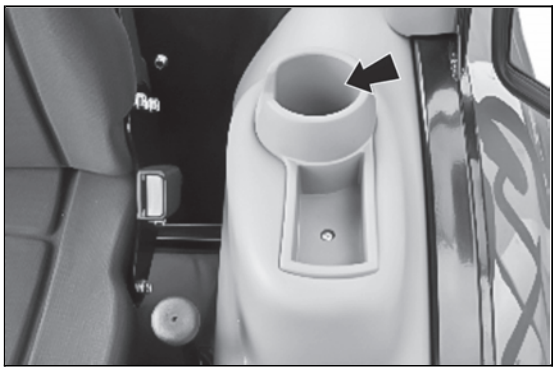
Warning: ***Cab air filters remove dust in the air, but are not capable of removing chemicals used in spraying crops or in weed control. Many chemicals used for these purposes are toxic when improperly used and can be hazardous to operators and others in the area. Follow the instructions of manufacturers of both the equipment and the chemicals regarding prohibition of dust or spray, personal hygiene practices, and other precautions noted by the manufacturers.***

Radio, CD Player (If Equipped)
For operation refer to the Radio, CD player manufacturers instructions.



HODP162

Cup Holder
Used for storing bottles and personal belongings.



CABIN SYSTEM

Checking the Air Conditioning System
1. Environment-friendly refrigerant: R134a (0.7 ~ 0.85 kg)
The presence of air and water in the system could jeopardize its efficiency.

- The air is uselessly compressed by the compressor and no cooling effect is produced.
- The moisture has a tendency rise to obstructions which prevent the cooling efficiency.

2. Check belt tension; when finger pressure is applied to the mid-point between both pulleys.
3. Condenser fins must always be duly clean using water or an air set.

Checking the Air Conditioning System Charge

1. Check the refrigerant charge.

- Start the engine at 1,500 rpm.
- Set the air conditioner to the lowest temperature for 5 minutes.
- Check the refrigerant level through the sight glass.

 **Caution:**

- ***If the air-con. is operated with not charged.***
- ***The lubrication in the compressor can cause the damage.***

Fault Diagnostics
1. Troubleshooting

	PROBLEM	CONDITION	CAUSE	CORRECTIVE MEASSURE
1. Compressor	Unusual sound	Noise at the input Noise at the output	- Insufficient lubrication	- Add
			- Belt tension released	- Adjust
			- Loose console	- Tighten the screws
			- Clutch defect	- Check
	Abnormal speed	Input cause	- Damaged parts	- Check, replace
			- Clutch slipping	- Check, replace
			- No lubricant	- Add
		Output cause	- Belt tension released	- Adjust
	Refrigerant or oil leakage	Refrigerant or oil leakage	- Sealing washer damaged	- Replace
			- Loose head screws	- Tighten the screws
			- O-Ring damaged	- Replace
	Excessive pressure	Low, high pressure	- Clogged radiator	- Clean
			- Compressor	- Replace
2. Fan	Low pressure or not working	The fan is running normally	- Air supply clogged	- Clean
			- Freezing evaporator	- Minimum pressure setting
			- Fan switch damaged	- Replace the switch
			- Compressor	- Replace
		The fan is running abnormally	- Engine fault	- Replace
			- Broken wire	- Replace
		- Air leak	- Pipe leak	- Check, tighten
	Fan cannot be controlled	Engine	- Control switch fault	- Check
		The engine is running abnormally	- Engine fault	- Replace

	PROBLEM	CONDITION	CAUSE	CORRECTIVE MEASSURE
3. Clutch	Noise	Regular sound, Irregular sound	Collision with pulley	Check the direction of rotation of the compressor
	Disengagement	Sometimes it engages	Conductor fault	Check the conductor
		Engaged by pressing manually	Large clutch play	Adjust
			Low voltage	Check the battery
		The conductor is not defective	Malfunction	Replace
	Slippage	Slipping when turning	Low voltage	Check the battery
			Oil remained on the clutch	Clean
			Malfunction	Replace

2. Check of the air conditioning with a pressure gauge.
To connect with manifold pressure gauge can find the cause of air conditioning system. Because manifold pressure gauge is various sensibly. (Ambient Temp. is based on 30~35 °C)

Caution: ***Operating E/G RPM 1500~2000 is must, and so to that you can check the correct cause and air conditioning. (In case below the figure of indicated pressure gauge has some clearance, confirm with approximate indicated needle data.)***

3. gauge pressure conversion

- lb/in^2=PSI
- 1 kgf/cm^2 = 14.22 lb/in^2 (Ex) 200 PSI=14 kgf/cm^2

TROUBLESHOOTING

Engine Troubleshooting

TROUBLE		PROBABLE CAUSE	SOLUTION
ENGINE	Starter does not work	• Clutch pedal released	• Depress the clutch pedal
		• PTO switch set to ON position • Defective safety switch • Dead battery • Loose contact • Defective switch • Defective starter	• Set the PTO switch to the OFF position • Have it repaired by an authorized service • Charge the battery • Check for loose contacts and corrosion. Clean, tighten • Have it repaired by an authorized service • Have it repaired by an authorized service
	Low starter speed	• Low battery • Poor grounding • Incorrect engine oil viscosity	• Charge the battery • Clean and tighten the contacts • Replace with engine oil of the correct viscosity
	The starter works, but the engine does not start	• Air in the fuel system • Clogged fuel filter • No fuel supply • Defective engine • Defective key switch	• Bleed the system • Clean or replace the filter • Open the fuel tap • Have it repaired by an authorized service • Have it repaired by an authorized service
	Irregular engine operation	• Air in the fuel system • Clogged fuel filter	• Bleed the system • Clean or replace the filter

TROUBLESHOOTING

TROUBLE		PROBABLE CAUSE	SOLUTION
Engine	Irregular engine operation	• Clogged injection nozzle	• Have it repaired by an authorized service
		• Fuel system leaks	• Tighten the connections, replace the pipe and sealing washers
		• Fuel injection malfunction	• Have it repaired by an authorized service
	Engine stops at low rpm	• Defective injection pump	• Have it repaired by an authorized service
		• Incorrect valve clearance	• Have it repaired by an authorized service
		• Low idle speed	• Set to standard
		• Defective nozzle	• Have it repaired by an authorized service
	Engine overruns	• Limited regulator operation	• Have it repaired by an authorized service
		• Rising oil level	• Have it repaired by an authorized service
	The engine stops suddenly	• Low fuel level	• Refuel and bleed the system
		• Defective nozzle	• Have it repaired by an authorized service
		• Engine seizure due to insufficient oil volume or poor lubrication	• Have it repaired by an authorized service
	The engine is overheated	• Insufficient coolant amount	• Add coolant
		• Damaged fan belt	• Replace belt
		• Clogged radiator	• Clean the radiator
		• Lack of engine oil	• Check and refill

TROUBLESHOOTING

TROUBLE		PROBABLE CAUSE	SOLUTION
Engine	The engine produces white smoke	• Clogged air cleaner	• Check and cleanit
		• Excessive engine oil amount	• Check and set it to the proper amount
		• Insufficient fuel supply amount	• Have it repaired by workshop
	The engine produces black smoke	• Low quality fuel	• Add the specified fuel
		• Excessive fuel amount delivery	• Have it repaired by workshop
		• Insufficient nozzle pressure	• Have it repaired by workshop
	The engine does not produce sufficient power	• Clogged or carbonon nozzle tip	• Have it repaired by workshop
		• Insufficient compression or gas leak from valve seat	• Have it repaired by workshop
		• Improperly adjusted valve clearance	• Have it repaired by workshop
		• Incorrect injection timing	• Have it repaired by workshop
		• Low fuel level	• Add fuel
		• Clogged air cleaner	• Clean the element
	The oil warning lamp comes on during driving	• Low engine oil level	• Add to the specified level
		• Low viscosity of engine oil	• Change engine oil with proper viscosity
		• Faulty pressure switch	• Replace the switch

TROUBLE		PROBABLE CAUSE	SOLUTION
Engine	The oil warning lamp comes on during driving	Defective oil pump	Have it repaired by workshop
		Clogged oil filter element	Replace the oil filter
	The charge warning lamp comes on during driving	Defective wiring	Check for loose or missing terminal, short circuit and poor ground and repair as necessary
		Defective alternator	Have it repaired by workshop
		Defective battery	Replace the battery
		Damaged fanbelt	Replace the belt

Brakes and Hydraulic Systems Troubleshooting
Clutch, Brake and Hydraulic System Troubleshooting

PROBLEM		CAUSE	CORRECTIVE MEASSURE
Brake	Brakes do not work	• Incorrect play adjustment, worn or burnt lining	• Adjust the play, contact an authorized service center
	Brake pedal does not return	• Defective return spring, lack of lubricant in the bearings	• Replace the spring • Remove rust and lubricate
Hydraulic System	Hydraulics does not lift	• Engine speed is too low • Lack of transmission oil • Air leaks into lines • Clogged suction filter • Defective pump • Defective hydraulic distributor • Defective hydraulic valve	• Increase the engine speed • Refill the oil to the correct level • Tighten the connections or replace the pipe and sealing O-ring • Clean the filter and change oil • Contact an authorized service center • Contact an authorized service center • Contact an authorized service center
	Oil leaks from lines	• Loose line connections, cracked lines	• Tighten the connections • Repair or replace the lines
	Whistling sounds when lifting	• Incorrectly adjusted limiter	• Adjust the limiter

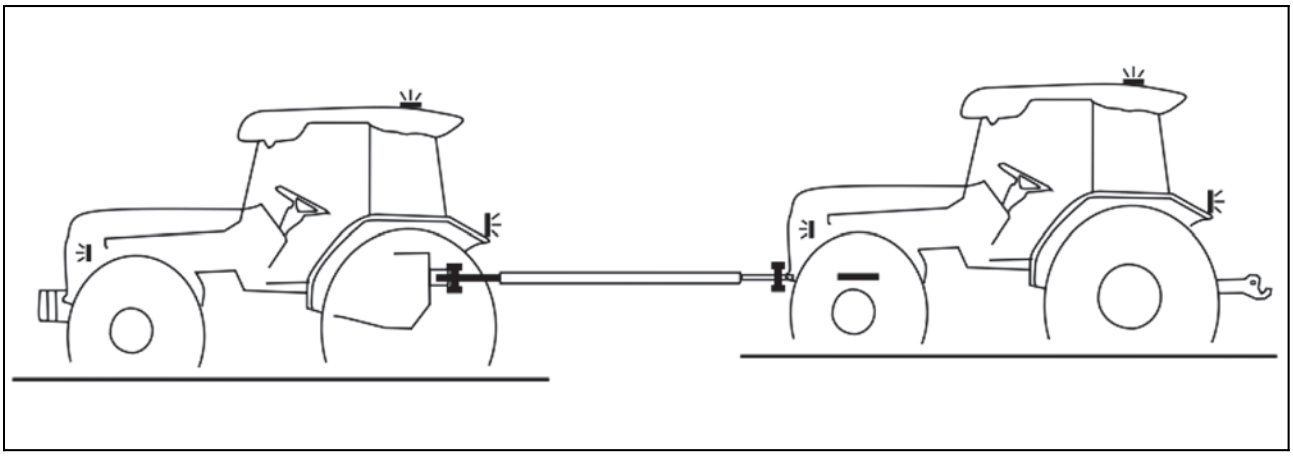
* For other hydraulic problems, contact an authorized service that has the correct equipment to perform diagnostics and repair the system.

TROUBLESHOOTING

Steering Wheel and Electric Instruments Troubleshooting

SYMPTOM		CAUSE	REMEDY
Steering wheel	Steering wheel shaking	• Wrong toe-in • Unequal tire pressure • Loose component	• Adjust toe-in • Inflate both to correct pressure • Tighten or replace if worn
	Excessive play in the steering	• Worn steering shaft • Worn components	• Contact dealer for repair • Contact dealer for repair
Electric instruments	Flat battery	• Faulty wiring • Faulty alternator • Faulty regulator • Broken or loose fan belt	• Repair, reconnect or tighten as needed • Contact dealer for repair • Contact dealer for repair • Replace or adjust
	Before anything else, check the electrolyte level of the battery and the connections. Top up it required and clean and retighten the terminal		
	Dim head lights	• Low battery • Faulty wiring	• Charge or replace • Repair or replace as needed
	Headlights not working	• Blown bulb • Blown fuse • Faulty contact	• Replace bulb • Replace fuse • Repair or replace and check the earth
	Horn not working	• Faulty horn button • Faulty wiring • Faulty horn	• Replace button • Repair or replace • Replace
	Dicator not working	• Blown bulb • Faulty flasher unit • Faulty wiring	• Replace bulb • Replace unit • Repair or replace

Towing the Tractor
The tractor can be towed only for short distances, such as, for example, from inside to outside a building.



HODP164

A broken down tractor should be towed for the minimum indispensable distance to remove it from potentially dangerous conditions. Observe all legal provisions as envisaged in the highway code relative to national legislation regarding towing manoeuvres.

CAUTION: ***We recommend transporting the tractor on a low loader in the case of longer transport distances. Comply with the maximum width and height regulations for road transport. Check that the loader is suitable for the weight of the tractor to be transported.***

CAUTION: ***When towing the tractor, the operator must always sit in the driver's seat.***

DANGER: ***Never allow unauthorized persons to access the driver's seat during towing.***

Towing with the Engine Running
Towing with the engine running is necessary due to forced lubrication of the gearbox, observe the following

- Engine speed between 1,200 - 1,300 rpm.
- Maximum towing speed 8 km/h
- Maximum towing distance 1 km

For towing the tractor use only a standard bar applied to the front towing hitch approved by the manufacturer. Make sure to use the correct pin for the towing hitch and that it is secured with its locking pin.
Clean all lights required for road use, front and rear, and make sure they are in working order.

Before starting towing check the following conditions:

- Unhitch any implement from the tractor;
- Lock the two brake pedals together with the connecting latch;
- Disengage the power take-off and differential locks;
- Set the shuttle control lever and gear lever to neutral;
- Move the range lever to the "fast" position;
- Move the creeper lever to neutral;
- Display the SMV (Slow Moving Vehicle) sign and turn on the rotating beacon and hazard lights

 **WARNING:** ***Turn on the warning lights and the beacon light. Attach suitable notice sign that the tractor is being towed. Check and comply with the applicable national legislation. Comply with the local safety regulations.***

When driving on the road, observe the following:

- Wait for traffic to thin down before entering the road. Be very careful at intersections without traffic control.
- Slow down to have a clear view in both directions.
- Keep the vehicle in your lane and drive as close as possible to the right side of the road. If there are vehicles behind you, pull into a lay-by as soon as possible to allow the vehicles to pass.
- Apply the parking brake when the tractor is stopped (at any circumstances).
- The driving speed must always be such as to allow complete control of the vehicle or the unit and ensure its stability.

 **Danger:** ***Never attempt to tow the tractor with ropes (including steel ropes) because rope breakage can cause serious injury.***

Towing with the Engine Off

 **Important:** ***With engine stopped and with forced gearbox lubrication system inoperative the tractor can be transferred to a service centre only when loaded onto a transporter.***

With engine stopped and with forced gearbox lubrication system inoperative the tractor should not be towed except when safety is at risk.

SPECIFICATION

Main technical parameters

Engine		
Model	Compax HT 35	Compax HT 40
Engine manufacturer	Yanmar	
Engine model	3TNV88C-K	3TNV88C-D
Engine type	Water cooled / in-line / four-stroke / diesel	
Engine power (kW)	25.5	27.5
Rated speed (rpm)	2,800	3,000
Number of cylinders	3	
Displacement (cm^3)	1,642	
Air filter	Double / Dry	
Alternator	12 V / 55 A	
Fuel system type	CRDI	

Driveline		
Model	Compax HT 35	Compax HT 40
Transmission type	Hydrostatic	
Number of gears	3 ranges	
Max. travel speed (km/h)	27	28.9
Brakes	Wet disc	
Steering	Hydrostatic	

Hydraulic System			
Model		Compax HT 35	Compax HT 40
Pump type		Double gear	
Main pump capacity (L/min)		24.4	
Steering pump capacity (L/min)		17.6	
Maximum total flow (L/min)		42.0	
Three-point hitch category		1	
Lift capacity (kg)	At the point of lifting	1,200	
	640 mm behind lift points	800	
Control type		Position	Position
Joystick valve		Standard	
Number of SCV		1	

SPECIFICATION

PTO	
PTO type	Independent
Control	Electrohydraulic
Rear PTO speed (rpm)	540
PTO shaft diameter (mm)	35

Volumes (l)	
Fuel Tank	34
Cooling system	7
Crankcase (with filter)	5.7
Transmission and hydraulic system	35
Front axle	8.2

Tractor dimensions (mm)		
Model	Compax HT 35	Compax HT 40
Total length with three-point hitch	3,200	3,250
Total width	1,360	1,475
Wheelbase	1,680	1,680
Height to the top of the ROPS	2,400	2,350
Min. clearance	325	
Min. turning radius with brakes	2,400	
Min. turning radius without brakes	2,950	

Tire dimensions	
Agricultural tires front	8.0-16, 4PR
Agricultural tires rear	12.4-24, 6PR
Industrial tires front	27x10.50-15, 8PR
Industrial tires rear	12.5-20, 10PR
Turf tires front	27x10.50-15, 4PR
Turf tires rear	41x14.00-20, 4PR

ROPS & Weight (kg)		
Rollover protection Standard	Frame	Cab
Total weight	1,419	1,575

SPECIFICATION

Noise levels

Model	Noise level at operator's ear [dB(A)]	
	Cab (closed windows)	Frame
Compax HT 35/40	83.5	85

Model	Max. external noise level (tractor in motion) [dB(A)]		Maximum external noise level (stationary tractor) [dB(A)]	
Compax HT 35/40	Cab	Frame	Cab	Frame
	80.5	80.5	78	78

Specifications
Input vibrations: Category A, Class I, II and III
Ambient temperature: 23 °C

Seat type			Vibration level corrected for seat
W09SSS	Light driver	59 kg	1.241 m/sec^2
	Heavy driver	98 kg	1.122 m/sec^2

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