

Zetor

COMPAX CL

OPERATOR'S MANUAL

1/2020



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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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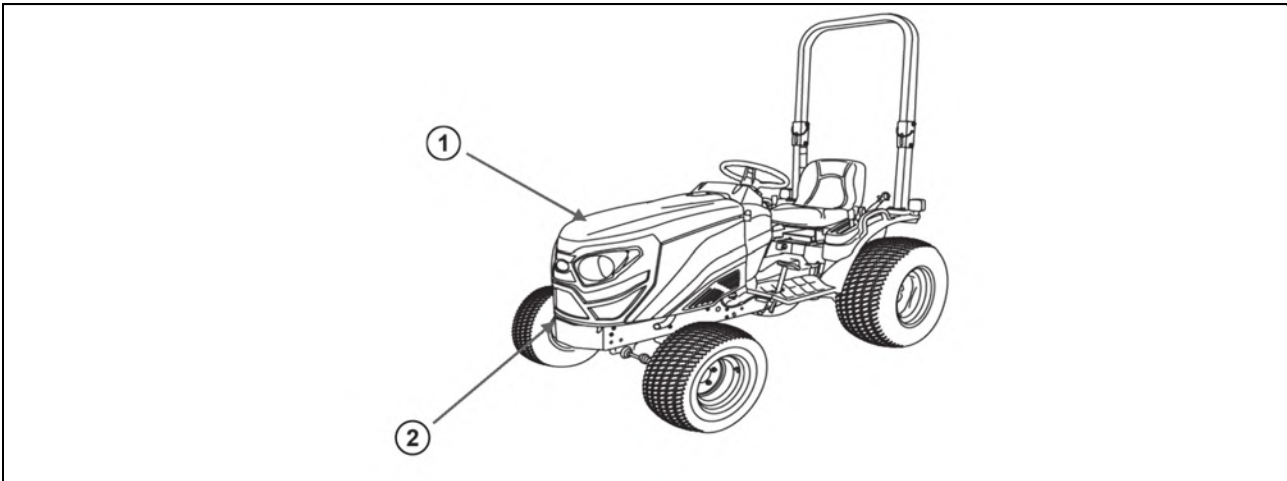
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LOCATION OF SERIAL NUMBERS

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.



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.

This 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).

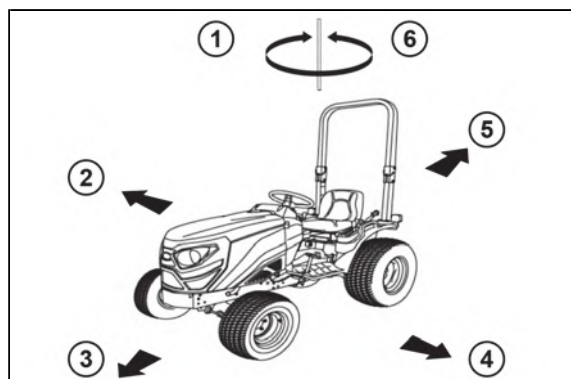
When ordering spare parts, always specify the tractor and engine serial numbers when ordering.

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)



(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 six forward gears and two reverse gears with the High-Low selector lever.

Brakes 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 single acting 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.



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.

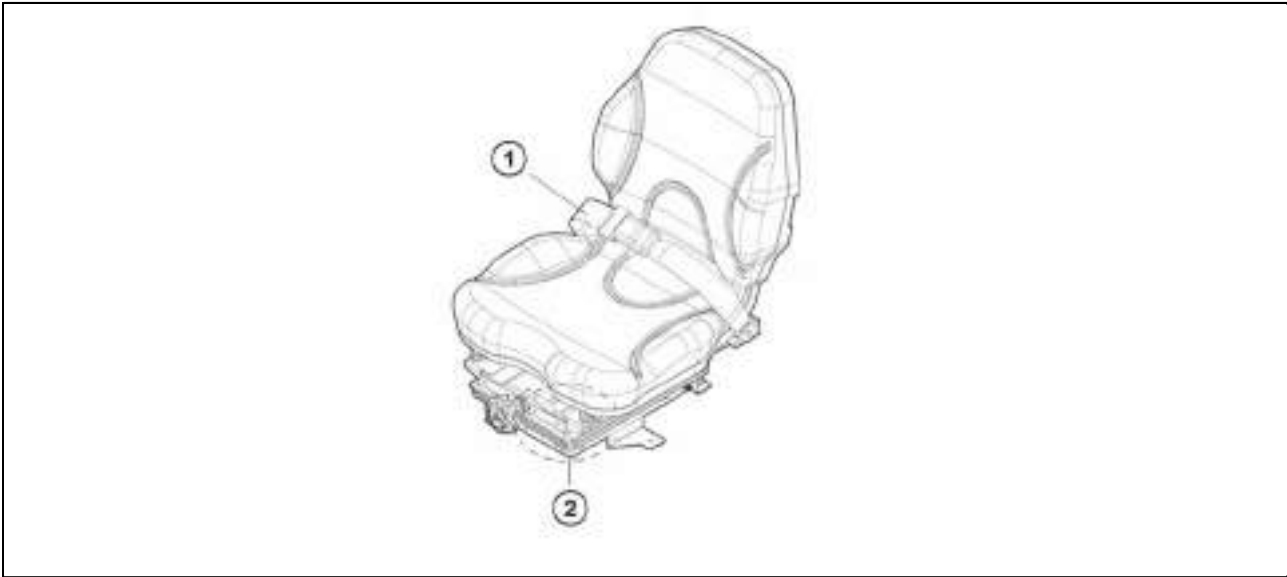


Warning: If the tractor is equipped with ROPS, always use the seat belt.

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.



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.

ROPS (ROLL OVER PROTECTION STRUCTURES)

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.



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



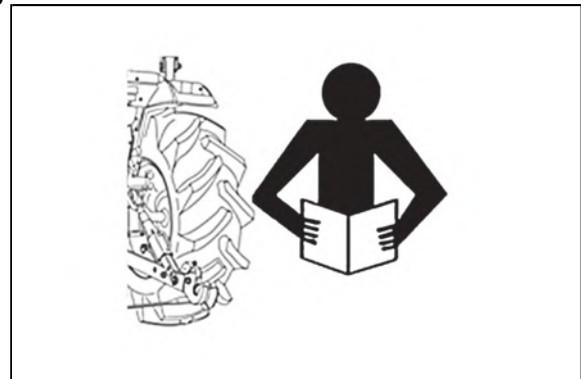
CAUTION

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 signs.

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

SAFETY INSTRUCTIONS, DO'S & DON'TS

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

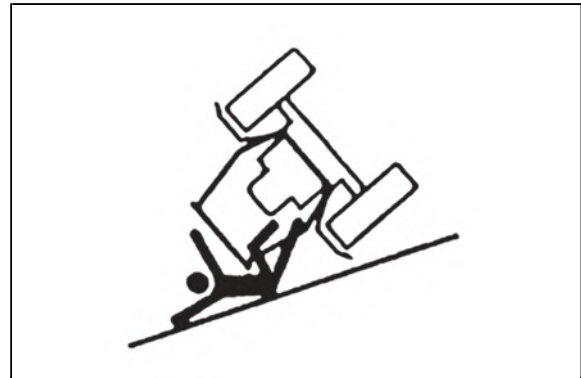
Precaution to avoid tipping

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.



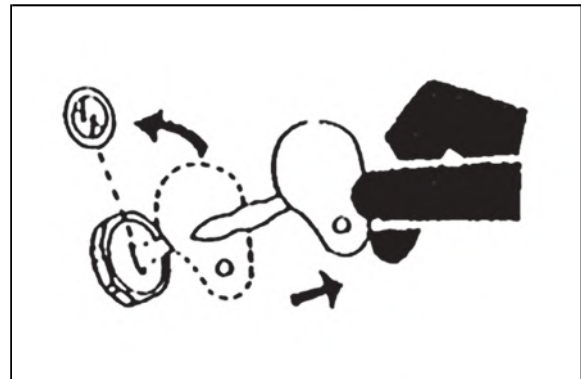
U18N137

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

SAFETY INSTRUCTIONS, DO'S & DON'TS

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

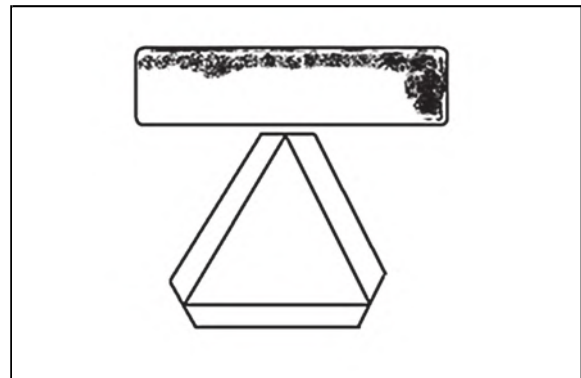
Entanglement in rotating shaft can cause serious injury or death. Keep PTO shield in place at all times. Wear close fitting clothing. Stop the engine and be sure PTO drive is stopped before making adjustments, connections, or cleaning out PTO driven equipment.



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 law.



U18N142

SAFETY INSTRUCTIONS, DO'S & DON'TS

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.

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.

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.



U18N143



U18N144



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.

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:

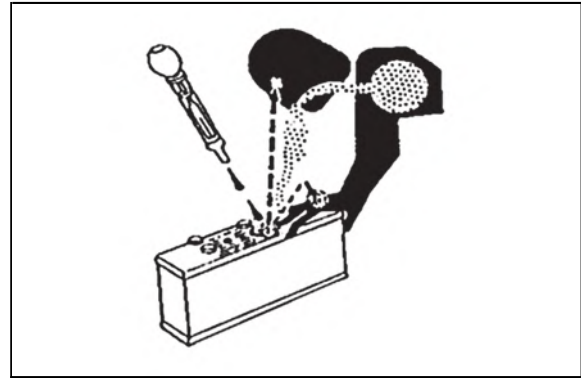
1. Refill the batteries in a well-ventilated place.
2. Wear eye protection and acid-resistant gloves.
3. Do not inhale the released vapors after the electrolyte has been added.
4. Do not add water to the electrolyte, as it may cause expansion and subsequent severe burns.

If you get stained with acid:

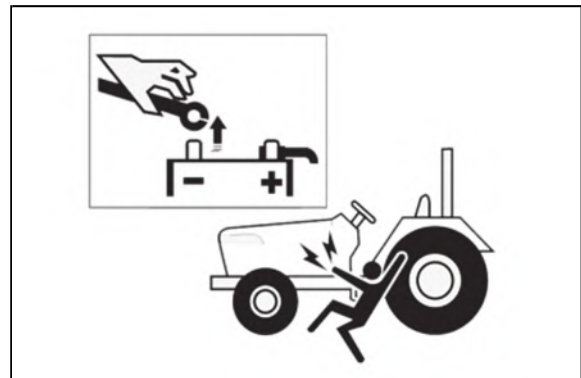
1. Rinse skin with water.
2. Rinse eyes with water for 10 - 15 minutes. Seek medical advice immediately.

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.



U18N146



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.



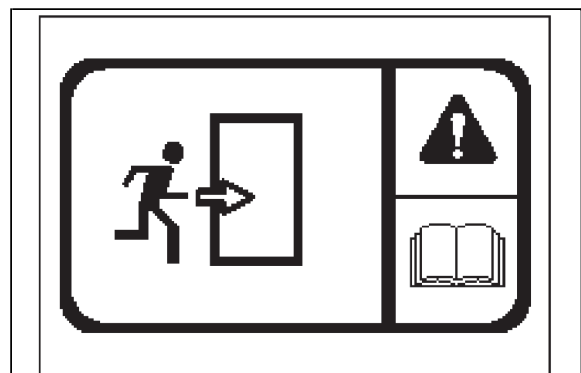
Caution: Safety starter switch is to be replaced after every 2 000 hours / 4 years, whichever is earlier.

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).

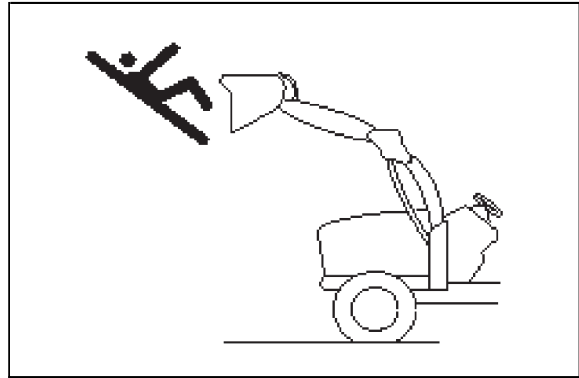


U18N005_1

SAFETY INSTRUCTIONS, DO'S & DON'TS

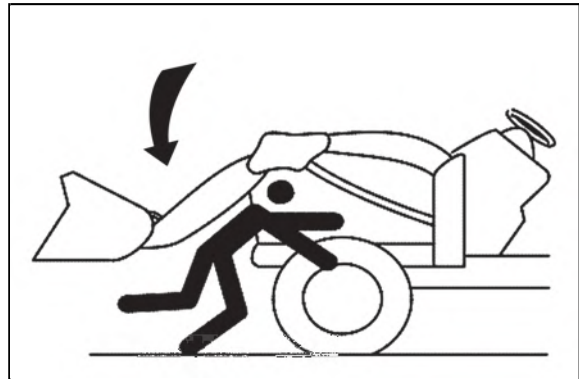
Safety precautions when using the loader

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.



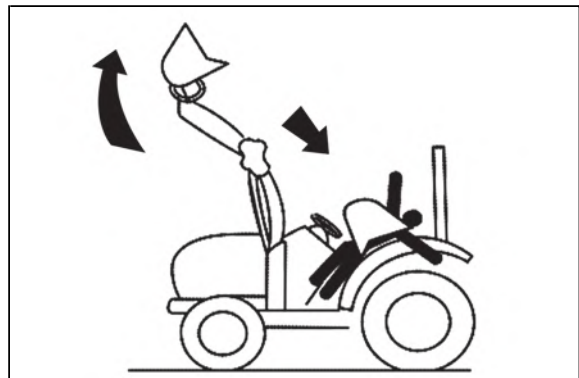
U18N005_2

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.



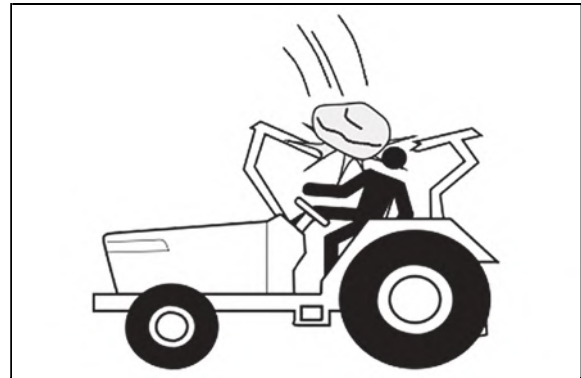
U18N005_8

SAFETY INSTRUCTIONS, DO'S & DON'TS

ROPS (roll-over protective structure), sun visor and cab are not FOPS protective structures (falling-object protective structure).

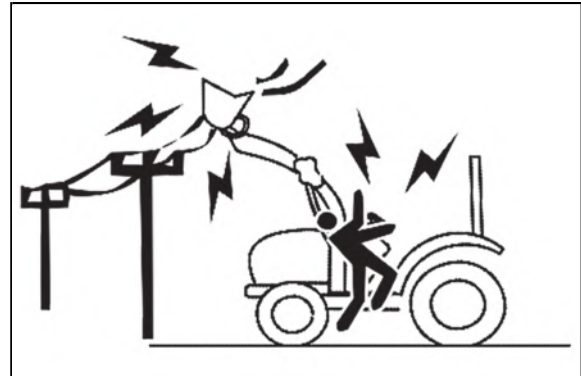
In no case does it serve to protect the operator from falling objects.

Avoid driving in dangerous areas, such as places where there is a danger of falling rocks, etc.



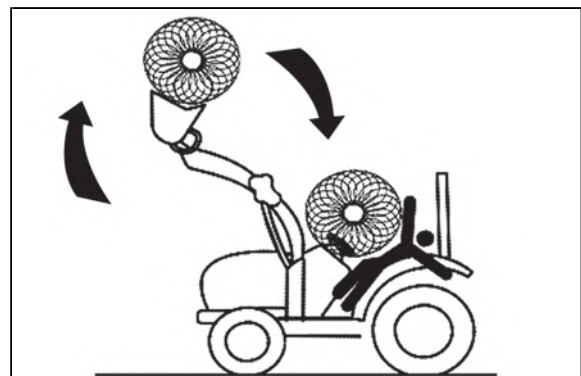
U18N005_5

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

SAFETY INSTRUCTIONS, DO'S & DON'TS

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.*

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

European standard EN 15695-1 is applicable to the cabs of agricultural or forestry tractors and self-propelled sprayers. The purpose of the standard is to limit the exposure of the operator (driver) to hazardous substances when applying plant protection products and liquid fertilisers.

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 INSTRUCTIONS, DO'S & DON'TS

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 chocked.
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 death 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.**

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

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.

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.

SAFETY SIGNS

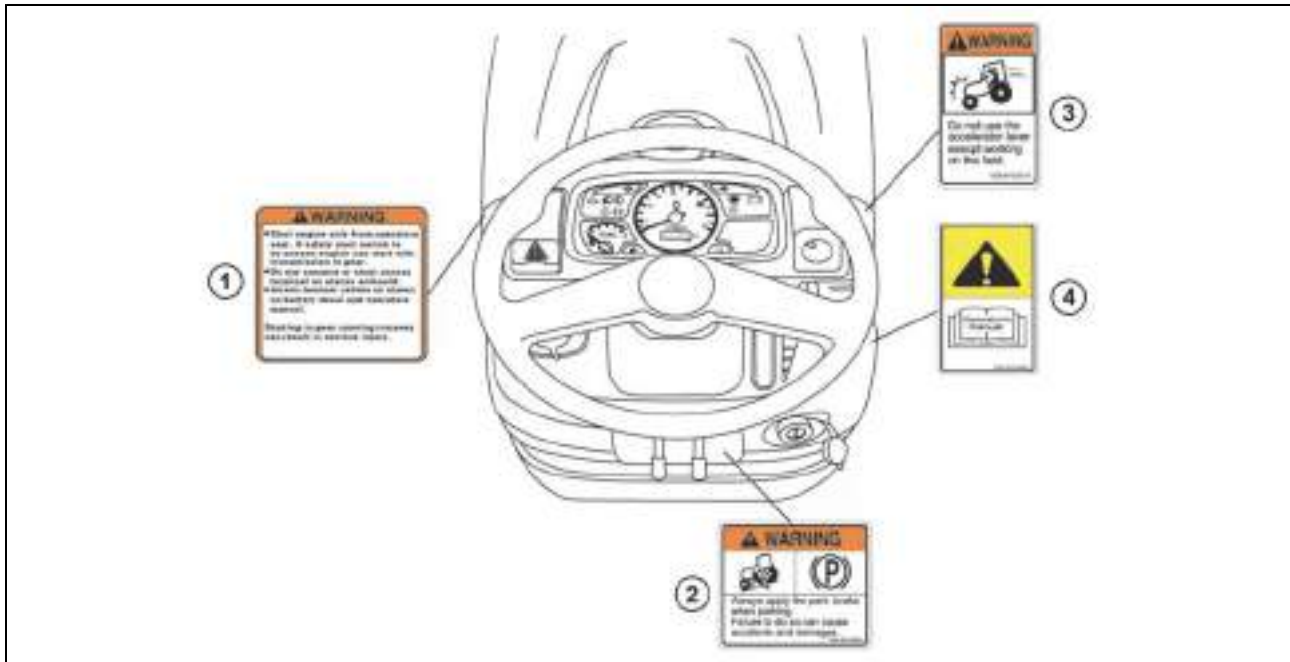
General safety information

IMPORTANT: This 'General Safety Information' should be stored with the machine at all times as reference.



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

Plates on the instrument panel cover



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 plate and in the operating and maintenance manual.

Starting with the gear engaged will cause the tractor to start driving and can result in serious injury.

2- WARNING:

Always apply the parking brake when parking.
Failure to follow this instruction may result in accidents and injuries.

3- WARNING: Do not use the accelerator lever except for field work.

4 - Operation and maintenance manual.

SAFETY SIGNS

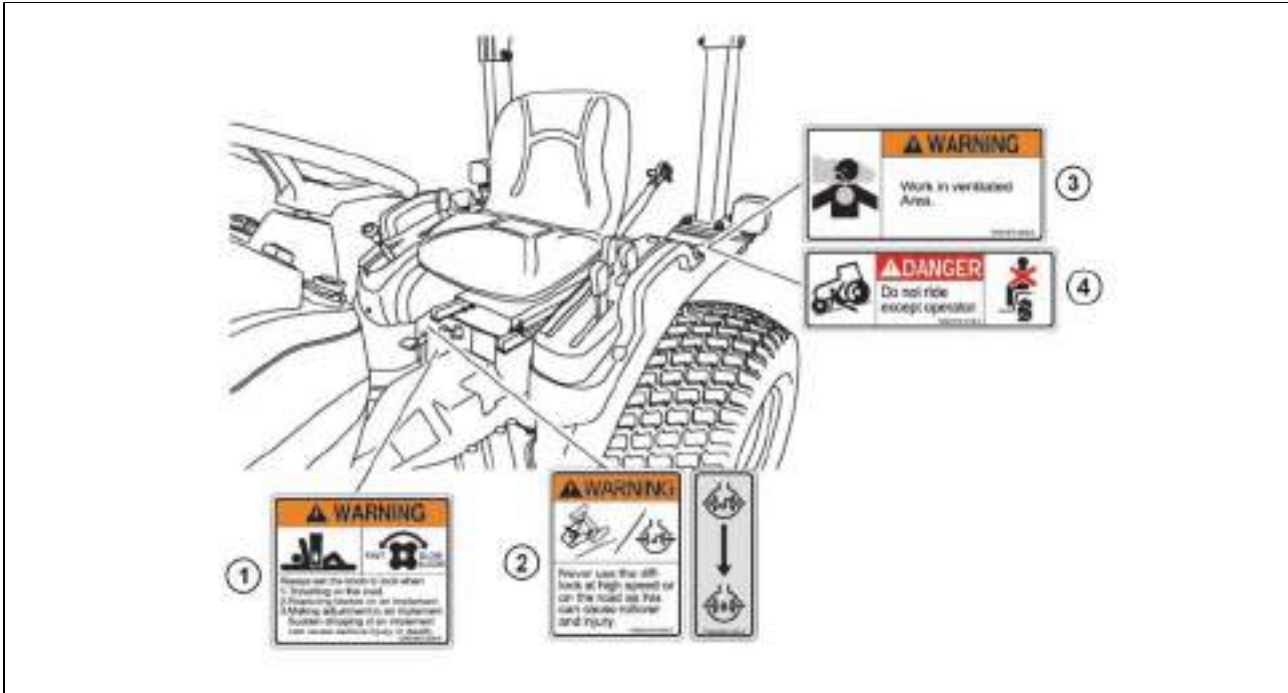
Plates on the chassis



- 1 - WARNING: Do not remove the radiator cap while the engine is hot. Hot steam can cause injuries.
- 2 - WARNING: Keep hands and clothing away from rotating fans and moving belts to avoid serious injury.
- 3 - WARNING: Always fasten the seat belt.
- 4 - WARNING: Do not use the range shift lever in the 'H' position when reversing.
- 5 - WARNING: Always apply the parking brake when parking. Failure to follow this instruction may result in accidents and damages.
- 6 - WARNING: Do not touch when the system is hot. It will cause severe burns.
- 8 - WARNING: Do not stay under the raised boom of the loader.
- 9 - WARNING: Push the button to the locked position on the joystick lever in neutral, whenever the implement is not in operation.
- 10 - WARNING: Only attach an implement or a trailer to the tractor using the prescribed tow bar or hitch.
- 11 - WARNING: Do not refuel the machine while smoking or when near an open flame or sparks. Always stop the engine before refueling the tractor.

SAFETY SIGNS

Plates around the seat



1- WARNING:
Lock this control when

1. Driving on the road.
2. Changing the working adapters of the connected device.
3. Performing adjustment and maintenance of the connected implement.

A sudden drop of the implement can cause serious injury or death.

2- WARNING: Never use the differential lock at high speed or on the road, as this can cause serious damage to the mechanism, loss of control of the machine/unit and serious injury or death.































3 - WARNING: Work in a ventilated area.

4 - DANGER: Only the operator may ride on the tractor.

NOTES

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

CONTROLS, INSTRUMENTS & OPERATIONS

Description of Tractor Controls

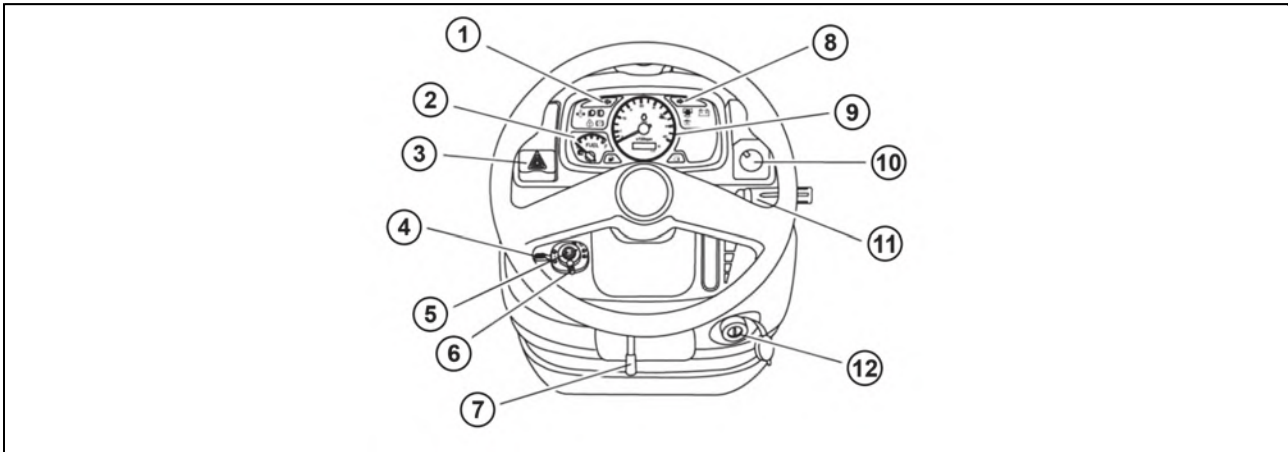
The following pages in this section describe in detail the position and operation of the various tractor instruments, switches and controls. Even if you operate other tractors, you should read this section of the manual and make sure you really understand the location and use of all the features of your new tractor. Do not start the engine or attempt to drive or operate this tractor until you are fully familiar with all its controls.

It is too late to learn once the tractor is moving.

If you have any doubts about any aspect of this tractor operation, consult your Zetor dealer/authorized Zetor service.

Particular attention should be paid to the recommendations for tractor running-in. These recommendations shall ensure reliable operation and long life of your tractor for which it was designed.

Instruments and Switches

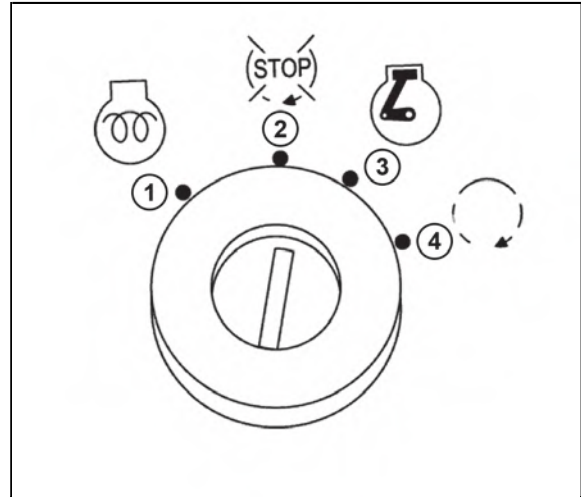


- 1 - Turn Signal Lights Indicator (Left)
- 2 - Fuel Gauge
- 3 - Hazard Warning Lights
- 4 - Turn Signal Light Switch
- 5 - Horn Switch
- 6 - Headlights Switch
- 7 - Parking Brake Lever
- 8 - Turn Signal Lights Indicator (Right)
- 9 - Tachometer
- 10 - PTO ON/OFF Button
- 11 - Throttle Lever
- 12 - Key Switch

CONTROLS, INSTRUMENTS & OPERATIONS

Main Switch (Key Switch)

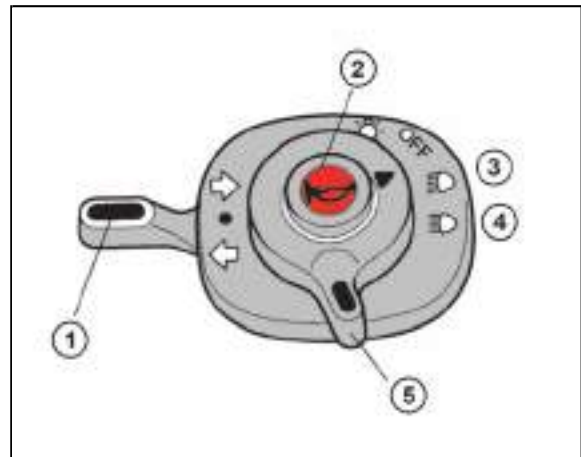
- 1 - **GLOW** - Preheating of combustion chamber.
- 2 - **OFF** - The key can be inserted or removed.
- 3 - **ON** - The electrical circuit is closed.
- 4 - **START** - The starter is on. When released, the key returns to the ON position.



Headlights Switch (Beacon Light), Turn Signal Lights Switch and Horn Switch

- **Headlights Switch (if Beacon Light is installed, also Beacon Light Switch)**
High beam and low beam lights are controlled by the lever (5) on the main switch
Position 1: Low Beam Lights (Beacon Light)
Position 2: High Beam Lights (Beacon Light)
- **Turn Signal Light Switch**
Press the turn signal lever (1) down to signal a left turn.
Press the turn signal lever (1) up to signal a right turn.
- **Horn**
Press the red button (2).

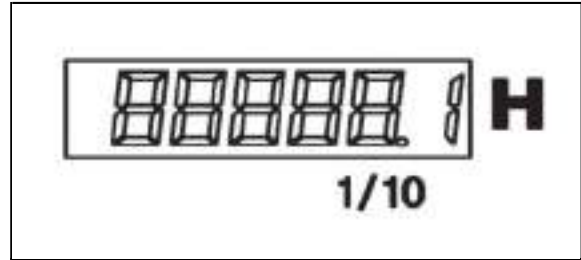
- 1 - Turn Signal Light Switch
- 2 - Horn
- 3 - Position 1 - Low Beam Lights
- 4 - Position 2 - High Beam Lights
- 5 - Headlight Switch



CONTROLS, INSTRUMENTS & OPERATIONS

Hour Meter

The number of hours is indicated by a number whose last digit shows tenths of hours.



Tachometer

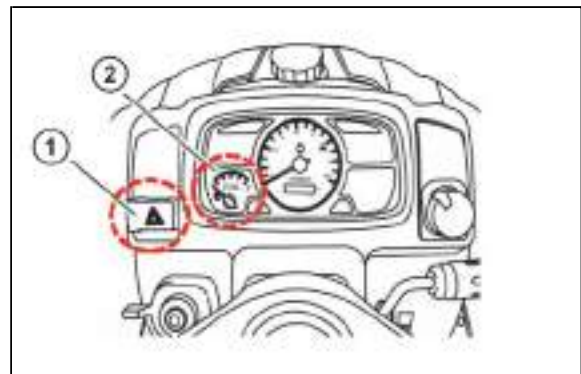
This meter indicates the engine and PTO shaft speeds as well as the drive speed at the highest gear.



Fuel Gauge

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

- 1 - Hazard Warning Lights Switch
- 2 - Fuel Gauge



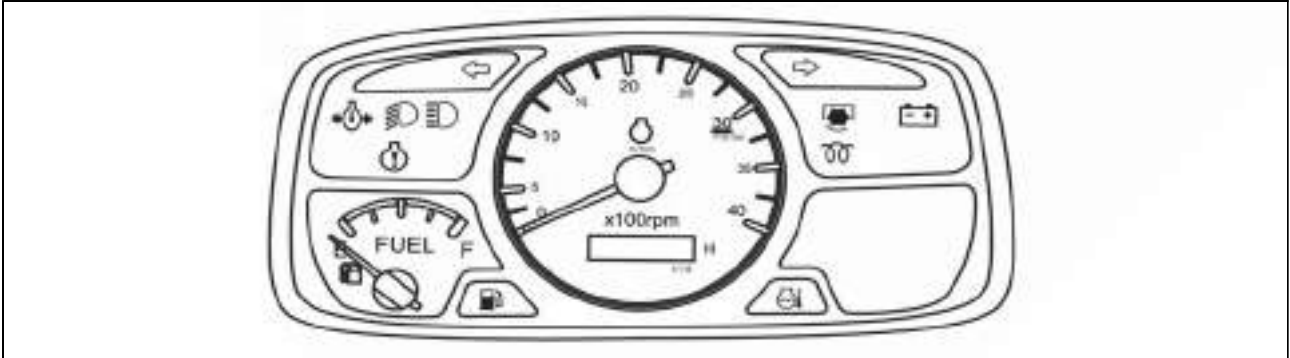
CONTROLS, INSTRUMENTS & OPERATIONS


Hazard Warning Lights Switch


To turn on the hazard warning lights, press the hazard warning light switch once (left and right turn signal lights flash).

To switch the hazard warning lights off, press the hazard warning light switch again.


Instrument Panel Indicator Lights




 **Charge lamp** This light will go off as soon as the engine starts to run to indicate that the alternator is charging. (Please note, as broken fan belt can cause the light to come on, please stop the engine as overheating can occur if not rectified immediately)


 **The oil pressure indicator light** turns off when the engine starts, in case the oil pressure is OK. If it comes on while the engine is running, stop the engine and contact a specialized service.

 **PTO Indicator Light** Indicates PTO activation.

 **Fuel Level** If it comes on while the engine is running, fill the tank with fuel.

 **The High Beam Indicator Light** comes on using the combination switch.

 **The Low Beam Indicator Light** comes on using the combination switch.

 **Preheating Indicator Light** indicates preheating of the combustion chamber.

CONTROLS, INSTRUMENTS & OPERATIONS

PTO Indicator Light

Indicates the status of the PTO shaft on the instrument panel.

1. If the indicator light is on: PTO rotates.
2. If the indicator light is off: PTO is off.

1 - PTO Indicator Light



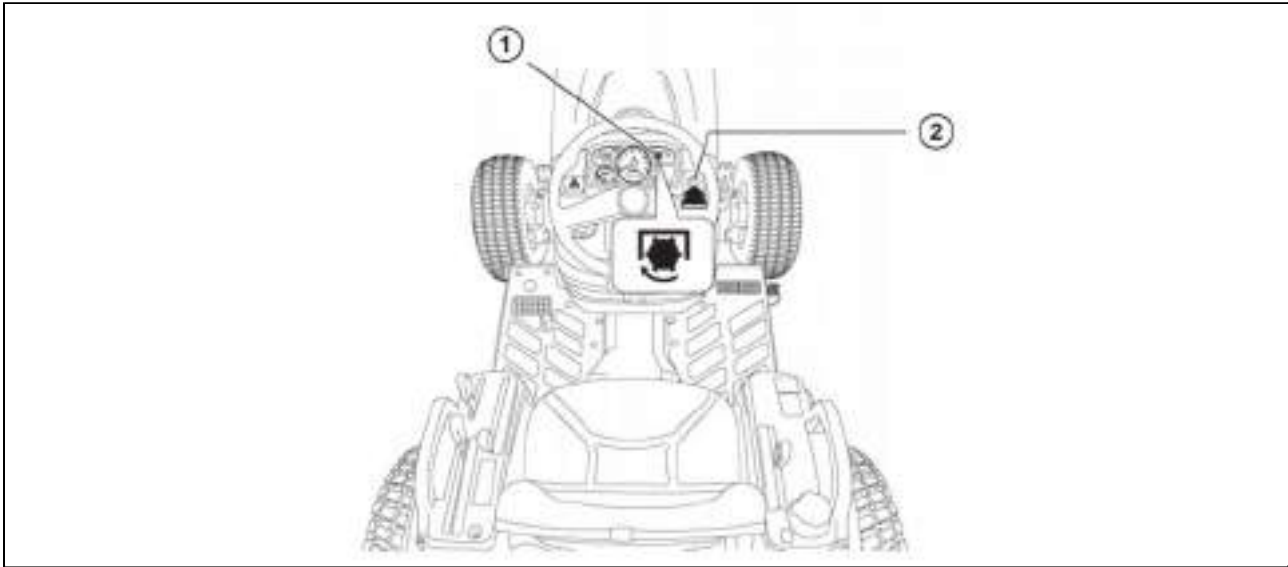
PTO ON/OFF Switch

The PTO ON/OFF switch is located on the right side of the instrument panel and can be easily identified by the yellow color of its built-in indicator light.

Pressing the switch to turn on the PTO turns on the indicator light to indicate that the switch and the PTO are ON.

Pressing the switch and turning it counterclockwise will turn off the indicator light to indicate that the PTO is OFF.

The PTO shaft will not rotate when the switch is in the OFF position. The PTO shaft will not rotate when the clutch pedal is depressed.

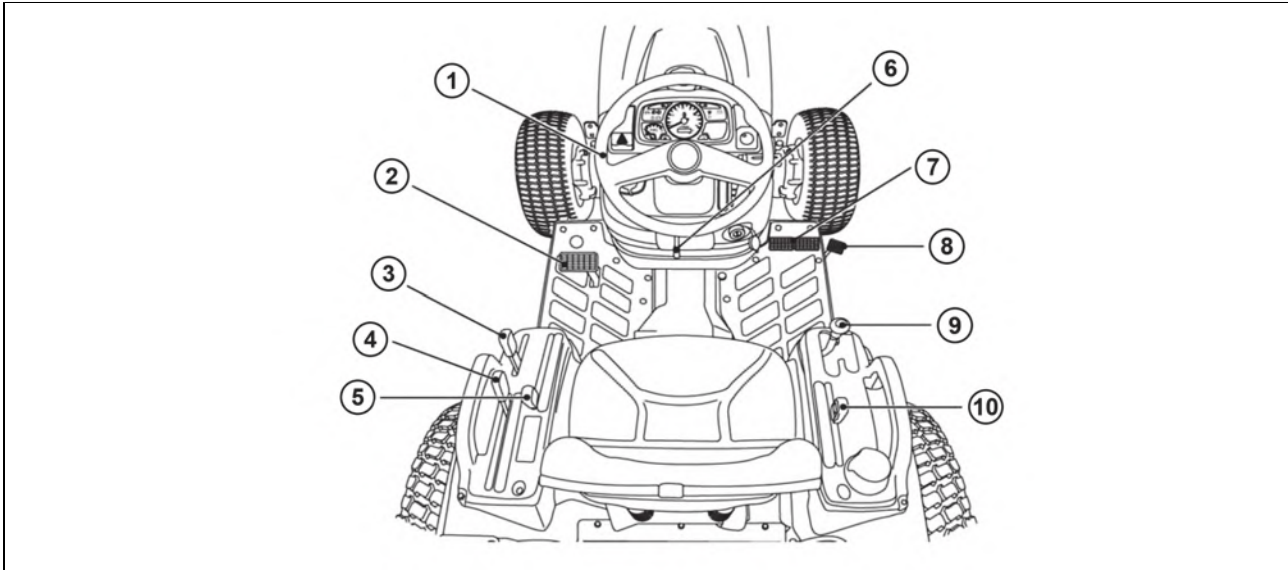


1 - PTO Indicator Light

2 - PTO Switch (ON/OFF):

CONTROLS, INSTRUMENTS & OPERATIONS

Tractor Controls

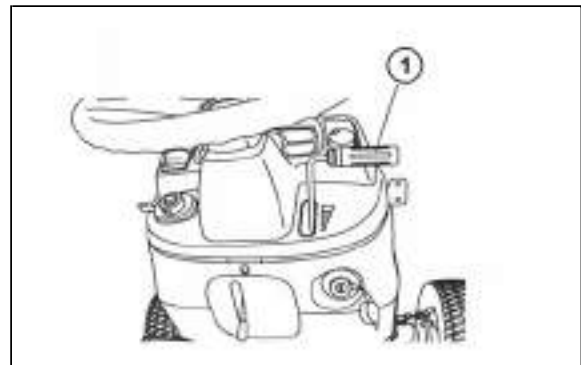


- 1 -Steering Wheel
- 2 - Clutch Pedal
- 3 - 4WD Shift Lever
- 4 - PTO Shift Lever
- 5 - Speed Range Shift Lever
- 6 - Parking Brake Lever
- 7 - Brake Pedal
- 8 - Accelerator Pedal
- 9 - Main Gear Shift Lever and Reverse Lever
- 10 - 3-Point Hitch Control Lever

Throttle Lever (Manual Control)

Pulling the hand throttle lever towards the driver reduces the speed. Pushing the hand throttle away from the driver increases the speed.

- 1 -Throttle Lever



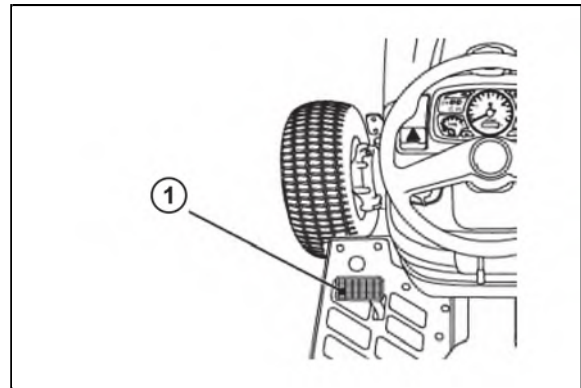
CONTROLS, INSTRUMENTS & OPERATIONS

Clutch Pedal

On manual transmission models, when the clutch pedal is depressed, the drive is disengaged and the speed range and forward or reverse direction of travel can be selected.

Smoothly release the pedal to start the drive of the tractor when driving off.

1 - Clutch Pedal



Brake Pedal

The left and right brake pedals are installed to help in turning the tractor in the field.



Warning:

- ***A 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 connected pedals 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 of the brakes is the same.***

Accelerator Pedal

This pedal can deactivate the hand throttle setting.

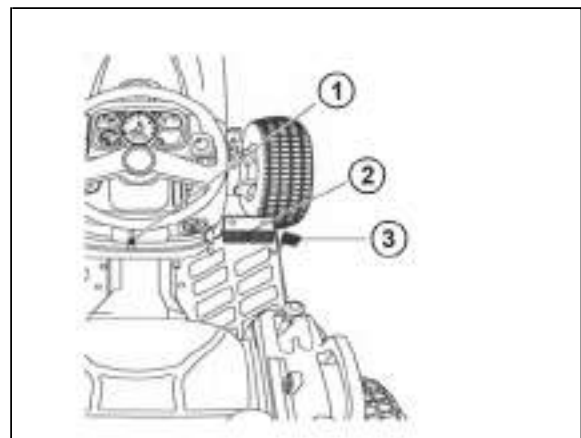
Parking Brake Lever (HST Type)

When pulling the parking brake lever up to engage it, depress the brake pedal. To release it, press the parking brake lever and depress the brake pedal.

1 - Parking Brake Lever

2 - Brake Pedal

3 - Accelerator Pedal

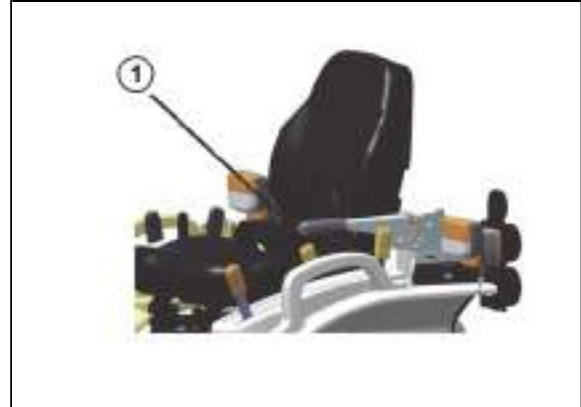


CONTROLS, INSTRUMENTS & OPERATIONS

Parking Brake (Gear Type)

1. To engage the parking brake, lift the brake handle up.
2. Lightly lift the parking brake handle until the parking brake release button can be pressed. To release the parking brake, hold down this button pressed and move the parking brake handle all the way down.

1 - Parking Brake Handle Button



Important: Driving with the parking brake applied will damage the brakes.

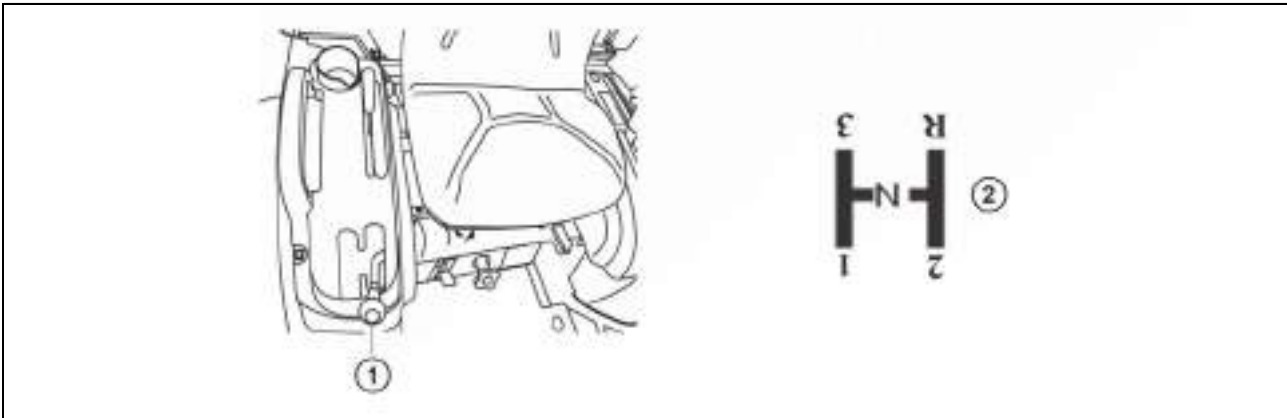
CONTROLS, INSTRUMENTS & OPERATIONS

Main Gear Shift and Reverse Lever

The gear shift and reverse lever is located on the right side of the driver's seat.

The gear shift lever allows three forward speeds: 1, 2 and 3, N (neutral) and one reverse speed R.

This lever must be used when the clutch is fully depressed, both when the tractor is stationary and when it is in motion.



1 - Main Gear Shift and Reverse Lever

2 - Scheme of Gear Shifting and Reversing



Important: Avoid damage! Avoid damage to the transmission.

1. **Depress the clutch pedal and stop the machine completely before moving the main gear shift and reverse lever (travel direction change).**
2. **When operating the machine, always depress the clutch pedal before changing the driving speed.**
3. **Never lean your foot on the clutch pedal when the machine is in motion.**



Warning:

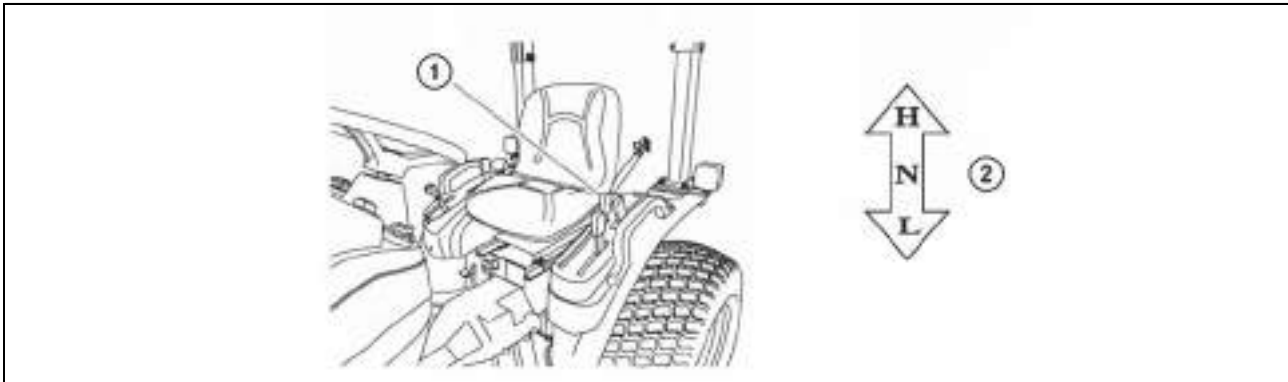
- **Only move the main gear shift and reverse lever when you are sitting in the operator's seat. Always stop the tractor.**
- **Always stop the tractor before you leave it.**
- **The gear shift lever must be in NEUTRAL when starting the engine.**

CONTROLS, INSTRUMENTS & OPERATIONS

Range Shift Lever (Road / Reduced)

The range shift lever allows two speed ranges, L (low) and H (high), and is located on the left side of the operator's seat.

Before moving the range shift lever, the tractor must be stopped and the clutch depressed. Use the range shift lever to select the L, H speed range to suit your application.



1 - Range Shift Lever (Road / Reduced)

2 - Scheme of Shifting Speed Ranges H / L



Important: Avoid damage! Select the correct speed range and gear for the relevant application.

- **The machine can be operated in any gear with engine speeds at 1,350 - 3,000 rpm. Within these limits, the motor can be operated at varying loads.**
- **Never overload the engine by towing the machine at low speed.**
- **Increase the engine speed to match the expected load. If there is a slight increase in engine rpm simultaneously with moving the hand throttle lever forward, the engine is not overloaded.**

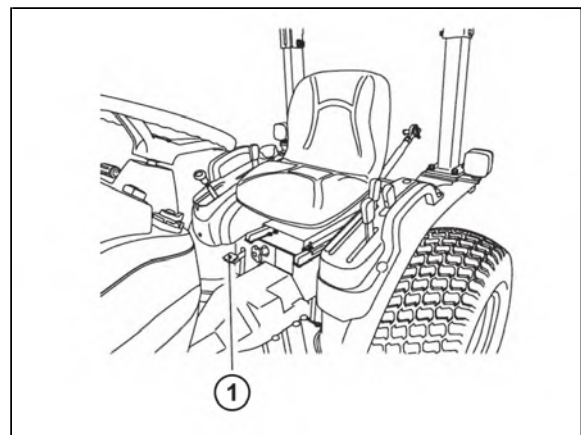
Differential Lock Pedal

The differential lock pedal is located on the left side under the seat.

When the wheels slip, activate the differential lock by pressing the differential lock pedal.

To release it, take your foot off the pedal.

1 - Differential Lock Pedal

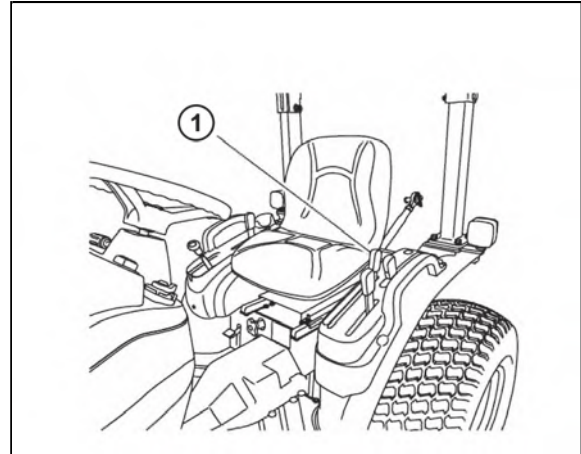


CONTROLS, INSTRUMENTS & OPERATIONS

Front Axle Drive Lever (4WD)

The front axle drive engagement lever is located at the bottom left side of the driver's seat. In the ON position, the front axle drive is switched on and in the OFF position it is switched off. Switch the front axle drive on or off when the front wheels are in a straight position and at low speed.

1 - Front Axle Drive Lever (4WD Lever)



The use of the front axle drive improves traction performance.



Important: Do not use the front axle drive at high speeds or on the road as this will result in excessive wear of the mechanism.

CONTROLS, INSTRUMENTS & OPERATIONS

Driver's Seat

To adjust the seat backwards and forwards, lift the lever located on the front of the seat and adjust it to the desired position (see instructions for seat adjustment).

Seat Safety Switch Function

If you do not sit on the seat when operating the tractor, the engine will stop.

Seat Belt

- Unfastening the Seat Belt

Press the button (3) and pull the buckle (1) out of the lock (2)

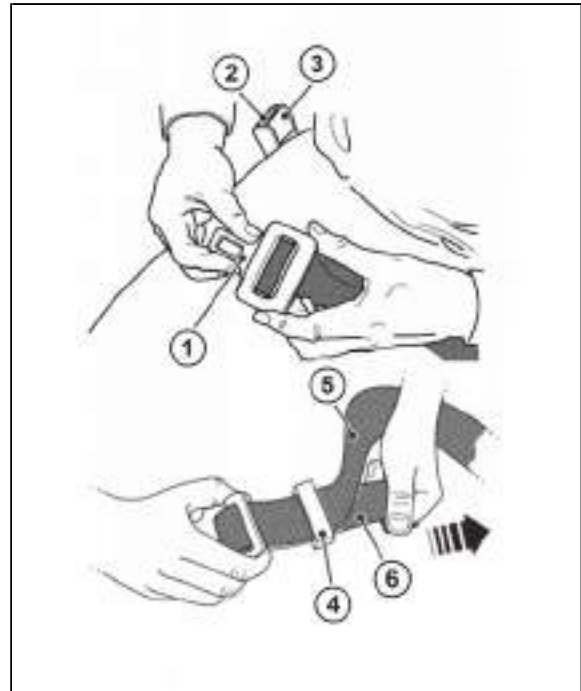
- Seat Belt Adjustment

Make sure you have a belt around your hips and not over your stomach. To adjust the seat belt length (5) Pull the strap (4) down the belt to achieve the required length.

A: Pull the belt (5) to extend the seat belt.

B: Pull the belt end (6) to shorten the seat belt.

- 1 - Buckle
- 2 - Lock
- 3 - Button
- 4 - Strap
- 5 - Seat Belt
- 6 - Belt End



CONTROLS, INSTRUMENTS & OPERATIONS

PTO

Both rear and mid PTOs allow variable utilization.

At the same time, they can be engaged either simultaneously or independently on each other.

The engine cannot be started when the PTO switch is in the ON position.

The engine stops when the driver leaves the seat with the parking brake released and the PTO on.



Warning: To prevent damage to the transmission and the working equipment, do not turn on the PTO when the engine is running at high speed.

Rear PTO

1 - Rear

2 - Mid + rear

3 - Mid

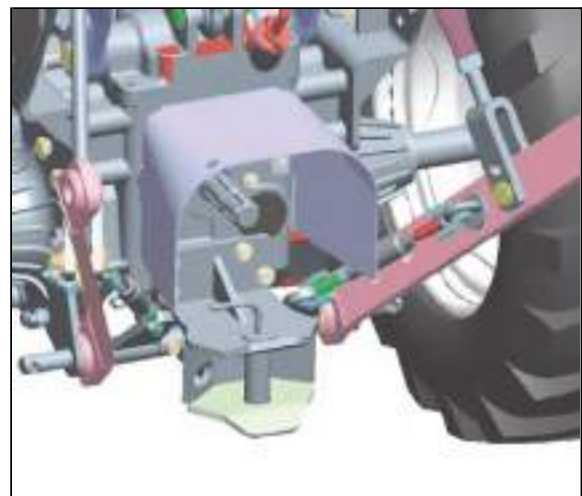
The tractor has a single-speed PTO (540 rpm). Use the PTO lever to switch it on.

The PTO switch must be in the OFF position before switching the PTO on.

1. Reduce engine speed almost to idle.
2. Make sure the PTO switch is in the OFF position.
3. Use the PTO lever to turn on the rear PTO.
4. Switch on the PTO switch.
5. Increase the engine speed to the desired speed.



Engine speed	REAR PTO Speed
2,2893 rpm	540 rpm
3,000 rpm	560 rpm



CONTROLS, INSTRUMENTS & OPERATIONS

Mid PTO

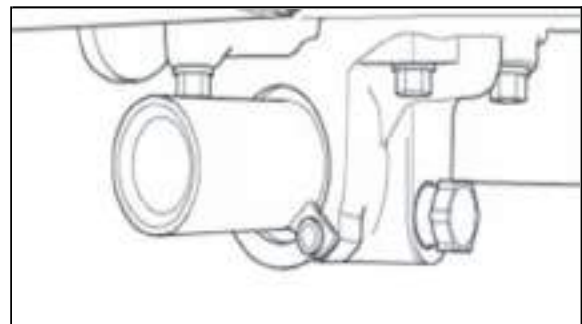
The mid PTO speed is 2,000 rpm. Use the PTO lever to switch it on. The PTO switch must be in the OFF position before switching the PTO on.

1. Reduce engine speed almost to idle.
2. Make sure the PTO switch is in the OFF position.
3. Use the PTO lever to turn on the mid PTO.
4. If the rear PTO needs to be engaged, move the PTO lever to the relevant position.
5. Switch on the PTO switch.
6. Increase the engine speed to the desired speed.

- 1 - Rear
2 - Mid + rear
3 - Mid



Engine rpm	Mid PTO Speed
2,875	2,000 rpm
3,000	2,087 rpm



Important: If the driver turns off the PTO switch, both the rear PTO and the mid PTO turn off immediately.



Warning: Do not operate any implement at higher speeds than specified. Stop the engine when adjusting the implement to avoid serious injury. When leaving the tractor, stop the engine, remove the ignition key and apply the parking brake.

CONTROLS, INSTRUMENTS & OPERATIONS

Hydraulics Operation

The hydraulic system is driven by a motor-driven hydraulic pump and is controlled by the position control lever located next to the driver.

Hitch Control Lever

The hitch control lever is used to lift or lower implement attached to the three-point hitch.

Move the lever back to lift the hitch. Move the lever forward to lower the hitch.

There are also adjustable stops that can be used whenever the hitch control lever needs to return to the same operating position.

- 1 - Hitch Control Lever
- 2 - Lifting
- 3 - Lowering



Warning: After finishing work always lower the implement to the ground, stop the engine and apply the parking brake to avoid injuries and accidents.

CONTROLS, INSTRUMENTS & OPERATIONS

Three-Point Hitch Lowering Speed Control

To control the lowering speed of the three-point hitch, use the rotary knob, which is located under the seat.

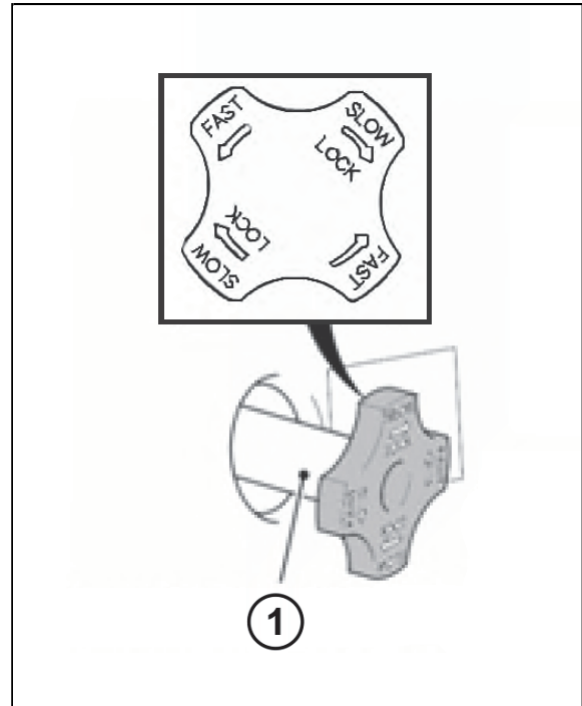
To decrease the lowering speed, turn the rotary knob clockwise.

To increase the lowering speed, turn the rotary knob counterclockwise.

To lock, turn the rotary knob clockwise.

Do not overtighten the rotary knob.

1 - Lowering Speed Control

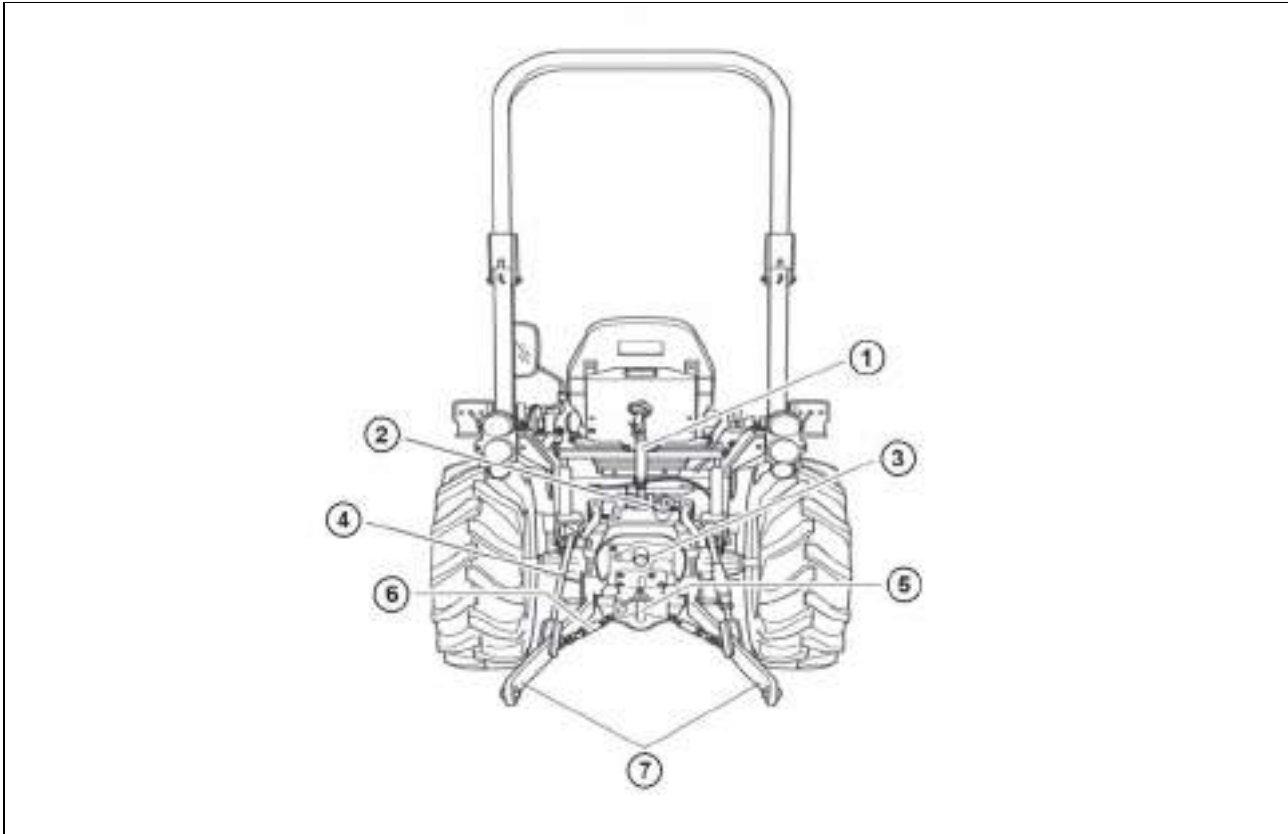


Warning: Set the knob to the locked position always, when

1. *Driving on the road.*
2. *Replacing tires or knives of the implement.*
3. *Performing adjustment of the connected implement. A sudden drop of the implement due to failure of the hydraulic system can cause serious injury or death.*

CONTROLS, INSTRUMENTS & OPERATIONS

Three-Point Hitch Control (TPH)

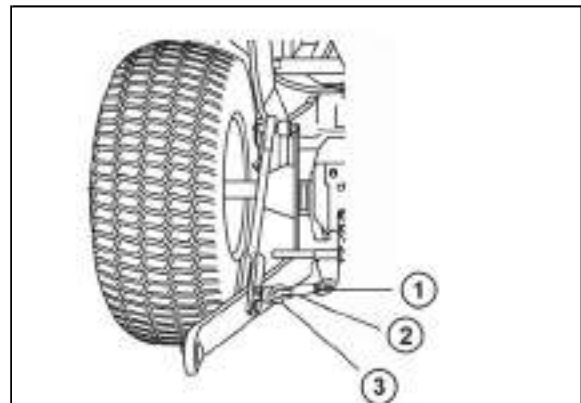


- 1- Upper Link
- 2 - Transmission Oil Filler
- 3 - PTO Shaft
- 4 - Lift Link
- 5 - Trailer Hitch
- 6 - Stabilizer Chain
- 7 - Lower Links

Stabilizer Chain Adjustment

To adjust the lower links, turn the turnbuckle to lengthen or shorten the stabilizer chain. Tighten the lock nut when the setting is correct.

- 1 - Lock Nut
- 2 - Turnbuckle
- 3 - Stabilizer Chain

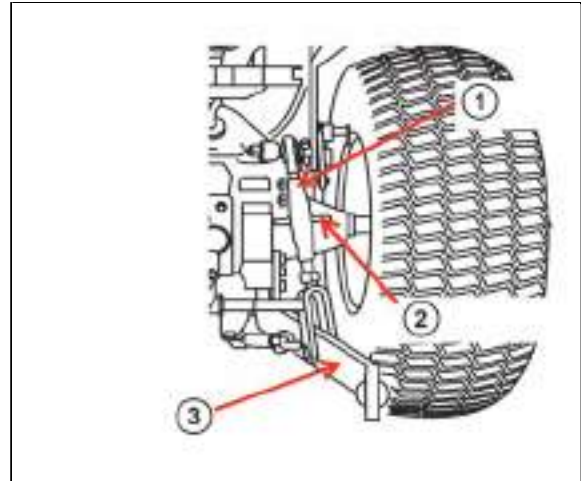


CONTROLS, INSTRUMENTS & OPERATIONS

Lift Link Adjustment

Adjust the length of the lift link by turning the adjustment handle. Adjust the length of the lift link as necessary so that the implement is set in its working position parallel to the ground.

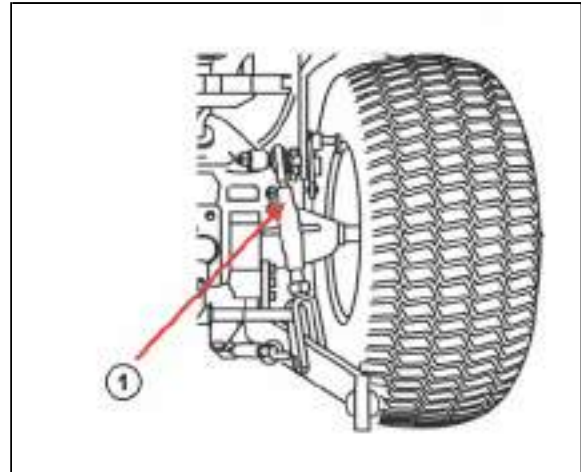
- 1 - Lift Link
- 2 - Adjustment Handle
- 3 - Lower Link



Link Yoke Adjustment on Lower Link

For various applications, the lift height change of the lower links can be adjusted by adjusting the pins in the holes of the lift links.

- 1 - Lift Link



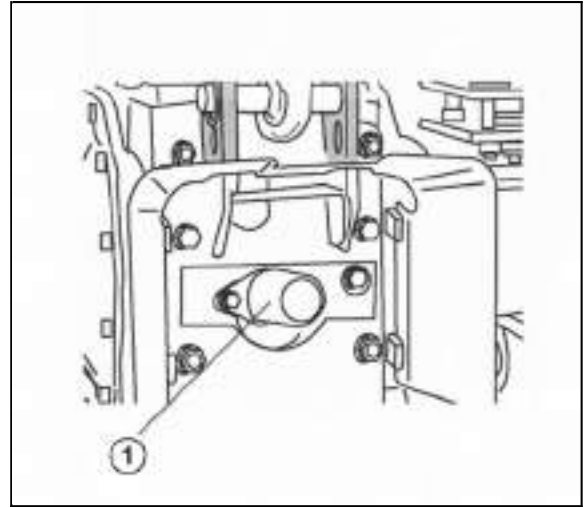
Danger: Use the draw bar only for towing and keep the three-point hitch raised when towing with the draw bar. Incorrect position may cause unbalance, causing the tractor to roll over and result in machine damage, death or serious injury.

CONTROLS, INSTRUMENTS & OPERATIONS

Implement Installation

When using the PTO, remove the safety cover from the PTO shaft. Adjust the yoke of the lift link on the lower link to suit the used implement. Attach the left lower link, then attach the right lower link, if necessary using the adjustment handle on the alignment box. Connect the upper link. Connect the PTO shaft to the tractor, if it is to be used, and make sure it is properly locked in place. Adjust the stabilizer chains to suit the implement and tighten the lock nuts. Use the reverse procedure to remove the implement.

1 - Safety Cover

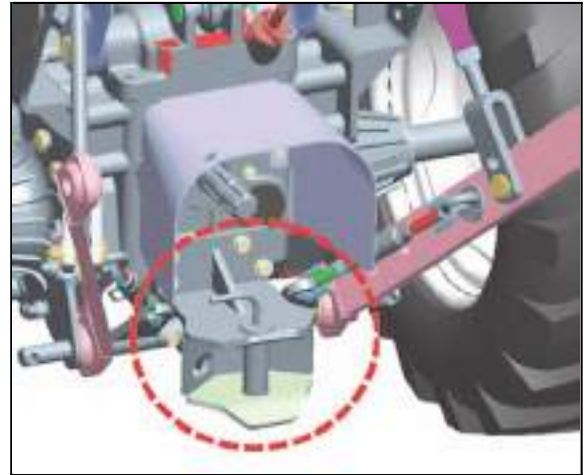


Warning:

- ***Do not connect the PTO shaft while the engine is running.***
- ***Make sure all safety covers are in place.***

CONTROLS, INSTRUMENTS & OPERATIONS

Towing equipment



DANGER:

- ***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.***



Warning: All implements attached to the tractor must be secured safely and in accordance with the manufacturer's instructions; see the mounting holes diagram. Use only approved implements.



Warning: The front towing hitch should only be used for towing a trailer in an emergency or towing the tractor to the yard or an authorized service center.



Warning: Never tow semi-mounted work equipment, trailers or agricultural machinery by attaching them to the upper link of the three-point hitch. This could cause the front axle to become light or get lifted - the machine rolling over to the back and causing serious injury.



Warning: When towing, always secure the hitch pin with a suitable locking pin with safety ring to prevent the hitch pin from sliding out of the hitch. The locking pin must always be secured in the hitch.



Warning: Maximum permissible hitch load (horizontal and vertical), maximum permissible hitch height for roads. The utilization and maximum towing load are specified in the tractor registration document.



Warning: Do not allow anyone to ride on the drawbar or on the lower links.

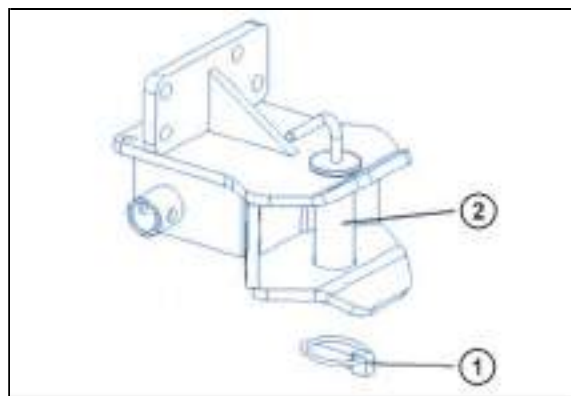
CONTROLS, INSTRUMENTS & OPERATIONS

Implement Connection and Disconnection

- 1 - Retaining Ring
- 2 - Pin for the Attachment of Implement to the Hitch

Proceed as follows:

- Remove the retaining ring 1
- Remove the pin 2
- Slowly reverse the tractor to the implement
- Insert the pin 2
- Insert the retaining ring 1



Tail Piece Type	Maximum permissible towed weight	Maximum vertical hitch load	Used Rear Tires
T-CC2	3,000 kg	350 kg	9.5-16, 6PR (Ag) 27x12.5x15, 4PR (Ind.)

Technically permissible weights

Maximum non-braked weight when tractor is loaded / unloaded	1,000 / 500 kg
With overrun brake	1,950 kg
Towable weight with hydraulic or pneumatic braking	N/A

Tractor Identification Plate

The tractor serial number is stamped on an aluminum plate located on the right side of the axle frame.

CONTROLS, INSTRUMENTS & OPERATIONS

Implements Connection and Disconnection

Connection

1. Do not forget to stop the engine before connecting the implement.
2. Depressurize the external hydraulic circuit by repeatedly moving the control lever to the end positions. Otherwise the couplers may be difficult to connect or the oil may expand from the hoses when connecting.
3. Remove any dirt from the quick couplers. If contamination of the hydraulic circuit occurs, there might be a malfunction in the system.
4. Open the tractor quick coupler dust cover and insert the implement counterpart. You should hear a click when you connect the quick coupler.
5. Pull the hydraulic hose of the implement to check that the couplers are properly connected.
6. Start the engine and check for operation and leaks.

Disconnection

1. Do not forget to stop the engine before disconnecting the implement.
2. Release any residual pressure in the hydraulic hoses of the machine and tractor by repeatedly moving the control lever to the end positions.
3. Remove any dirt around the quick couplers.
4. Lower the implement on the ground. If the hose is disconnected when the implement is loaded, it will be difficult to reconnect it.
5. Disconnect the quick couplers by pulling them backwards.
6. Cover the quick couplers on the tractor and implement with dust plugs to prevent dirt from entering.



WARNING:

- ***Never connect or disconnect the hydraulic hose of the implement when the pressure is not released or while the engine is running. Otherwise it is difficult to connect or disconnect the quick couplers and hydraulic fluid may splash out of the hoses and get into the eyes or penetrate the skin.***
- ***Stop the engine and wear protective goggles and gloves before assembly / disassembly.***

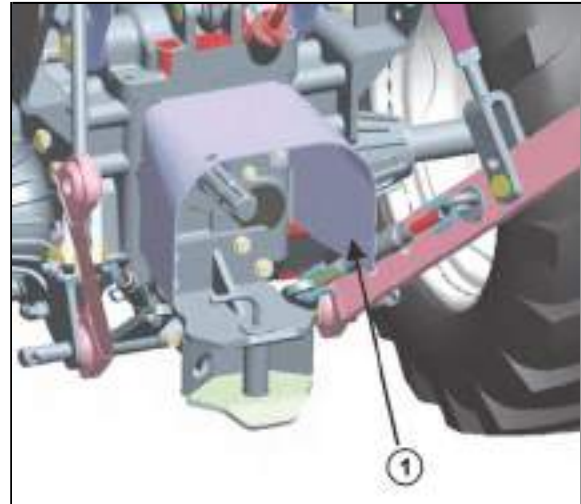
CONTROLS, INSTRUMENTS & OPERATIONS

Implement Installation

If the PTO is used, remove the safety cover from the PTO shaft.

Adjust the three-point hitch to allow trouble-free attachment of the implement.

1. PTO Cover

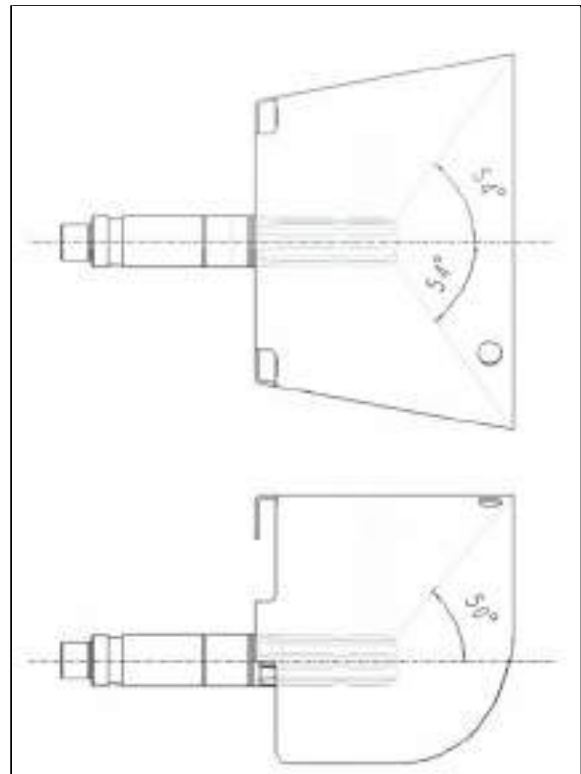


Connect the PTO shaft to the tractor and make sure it is secure.

Adjust the three-point hitch and secure the set positions. To disconnect the implement, proceed in the reverse order.



Caution: *Do not attach a PTO shaft with the engine running and ensure all safety shields are in place.*



CONTROLS, INSTRUMENTS & OPERATIONS

Front loader mounting points



1- Screws Sizes: M16xP2.0, quantity: 12 (double-sided), strength: 9T

Please refer to the documentation of the relevant front loader for more information.

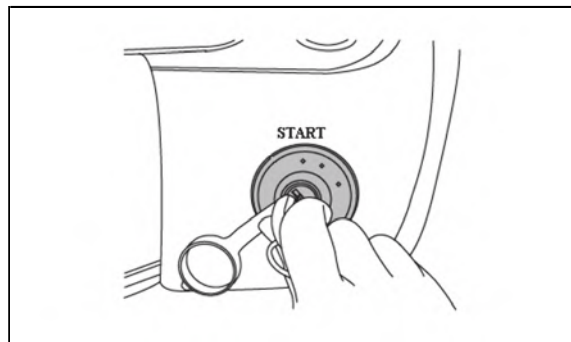
CONTROLS, INSTRUMENTS & OPERATIONS

Tractor Steering

Starting the Engine

Before starting the engine, check it according to the chapter Safety instructions for the user.

1. Sit into the driver's seat.
2. Depress the foot brake.
3. Move the hydraulic control levers to the lower position.
4. Depress the clutch pedal to deactivate the safety switch.
5. Move the main gear shift lever to the neutral position (N).
6. Insert the ignition key into the ignition switch.
7. Turn the key anticlockwise to preheat the combustion chamber, which is indicated by the glow indicator light on the instrument panel. Release the key when the light goes out. Then turn the key clockwise to the 'ON' position where the wiring will be activated and check the operation of all indicators and indicator lights. To start the engine, further turn to the 'START' position, where the starter is switched on and the engine starts. At this point, turn the key back to the 'ON' position.
8. Make sure all warning lights switch off after the engine starts.



Important:

- Never turn the key to the start position while the engine is running as this can cause serious damage to the starter and engine flywheel.
- Only engage the starter for a period of not more than 10 seconds.
- If Engine does not start, rest the starter for about 20 seconds and try again for a maximum of 10 seconds. If the engine does not start after repeated attempts, refer to the fault tracing guide.
- Especially in cold weather, always allow the tractor to idle for a while to warm up & build up sufficient oil pressure to ensure normal operating temperature for longer engine life.

Stopping the Engine

After light work let the engine idle for a while and turn the key off.



Important: *After long or heavy work allow the engine to idle for 5-10 minutes and turn the key off.*

CONTROLS, INSTRUMENTS & OPERATIONS

Warming Up

When starting the engine allow it to warm up to operating temperature by allowing it to idle 5-10 minutes to ensure full lubrication and operating temperature.

Failure to do so can shorten engine life substantially.



Important:

- ***Especially in cold weather, always let the tractor idle for a while to warm up and generate sufficient oil pressure.***
- ***This will ensure normal operating temperature and longer engine life.***

Warming 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 not heated properly.

At the same time, there may be problems with the hydraulic system and synchronization in the transmission.

Warming Up Time

Temperature	Time for warming up
Above 50 °F	5~10 min.
50 °F~32 °F	10~20 min.
32 °F~14 °F	20~30 min.
14 °F~-4 °F	30~40 min.
Below -4 °F	Over 40 min.



Important:

- ***Make sure the parking brake is engaged during warm-up.***
- ***Insufficient warm-up may cause problems or shorten the life of the relevant components.***

When the engine is warmed up, depress the clutch and move both shift levers into the desired positions.

Depress the brake pedals and release the parking brake.

Increase engine speed and smoothly release clutch for smooth start.

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

Storage of the engine in operating conditions for 3 months or longer

If the engine is not operated for a period of three months or longer during storage, internal engine parts may corrode and lose oil film.

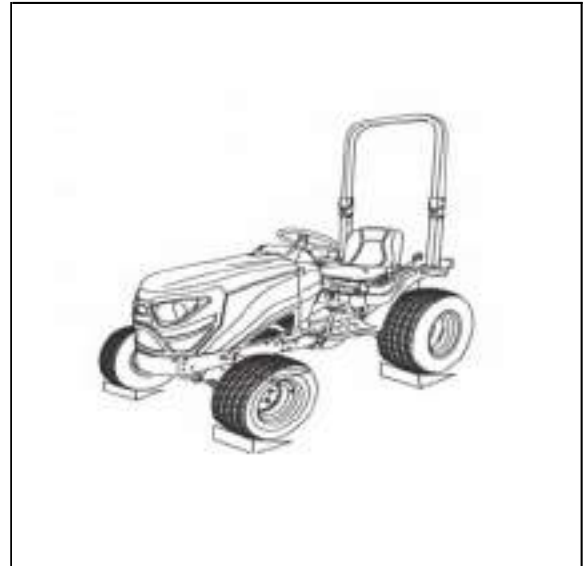
As a result, the engine may seize when restarting after a long downtime.

In order to prevent this, the engine must be periodically started up.

CONTROLS, INSTRUMENTS & OPERATIONS

Service Braking and Parking

Let the engine come back to idle and at the same time push in the clutch and brake simultaneously. When the tractor has come to a halt, lower any implement to the ground, and put the main gear in neutral. Apply the park brake, stop the engine, and remove the key.



Caution:

- *Always apply the park brake when parking.*
- *Failure to do so can cause accidents and damage.*
- *As an extra precaution when parking on a slope, chock the rear wheels.*

Drive Off on Steep Slope

With the pedals connected together push down on the brake pedals and push down the clutch. Set all gear levers to low and the throttle to medium engine speed. Release the clutch and as it engages release the brake pedals. Adjust the throttle to the required speed.



CONTROLS, INSTRUMENTS & OPERATIONS

Driving Downhill

Use the engine's ability to brake when traveling downhill.

Never rely on the brakes only and never travel downhill with the gears in neutral.



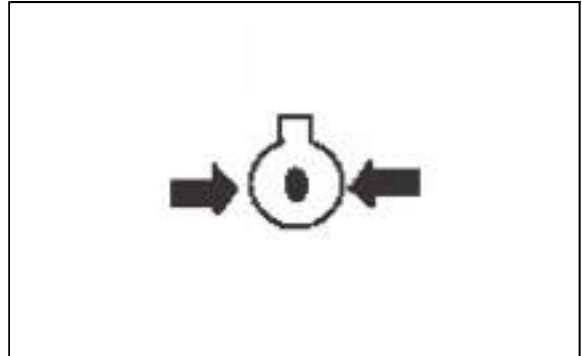
Warning:

- **The risk of rolling over significantly increases when operating on hilly terrain. Please drive with caution.**
- **When towing trailers on hilly terrain, make sure they are equipped with brakes.**
- **To use maximum engine braking, engage a low gear and do not shift gears when driving downhill.**

Check During Driving

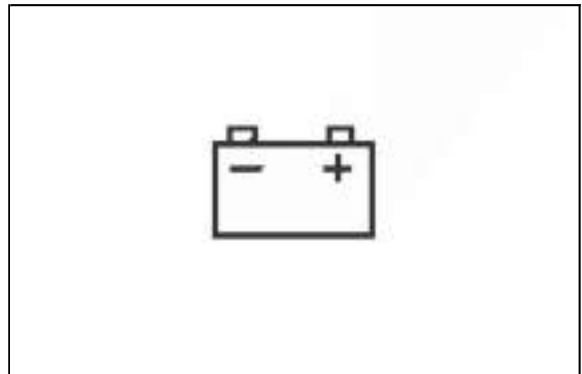
Constantly observe the warning lights on the instrument panel and when an indicator light comes on, stop the tractor and determine the cause.

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



If the alternator warning indicator light comes on, check all connections and make sure the alternator V-belt is not damaged.

If all connections and the V-belt are OK, contact an authorized service center to determine the cause of the problem.



Fuel Gauge

To prevent excessive water condensation in the fuel tank, refuel the fuel tank at the end of everyday work. When working, ensure that the fuel tank does not drop to a low level when the fuel system requires venting.



CONTROLS, INSTRUMENTS & OPERATIONS

Engine Coolant



If the thermometer indicates the engine overheating, check the coolant level in the system.



Danger: Allow the engine to cool down before removing the radiator cap, as severe burns with hot steam and boiling water could occur.

Check the radiator fins for blockage and the engine water pump belt (the same as the fan belt) for damage.



Warning:

- ***When driving on roads or on paved roads, connect both brake pedals and make sure that the weight of any implement is such that there is no large inter-axle weight difference.***
- ***Also make sure that the width allows you to pass by other road users. In relevant situation, use the hazard warning lights provided with the machine.***
- ***Strictly observe local traffic regulations.***



Warning: When moving near other people or vehicles with an implement attached, pay close attention to the width of the implement to avoid accident or injury.

NOTES

MAINTENANCE INSTRUCTIONS

Checks and Service

This section provides detailed information about the service procedures necessary to maintain trouble-free operation of the machine. Specific values for individual tasks can be found in the attached table.

Pre-Start Checks

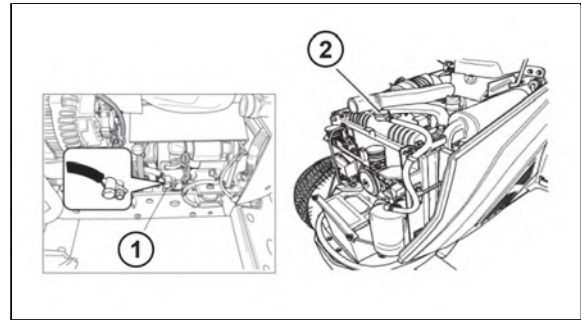
To avoid problems it is recommended that a range of checks be carried out daily before starting the tractor.

Engine Coolant

Remove the radiator cap and make sure that the coolant reaches up to the filler neck and that it is clean and contains the correct antifreeze or corrosion inhibitor.

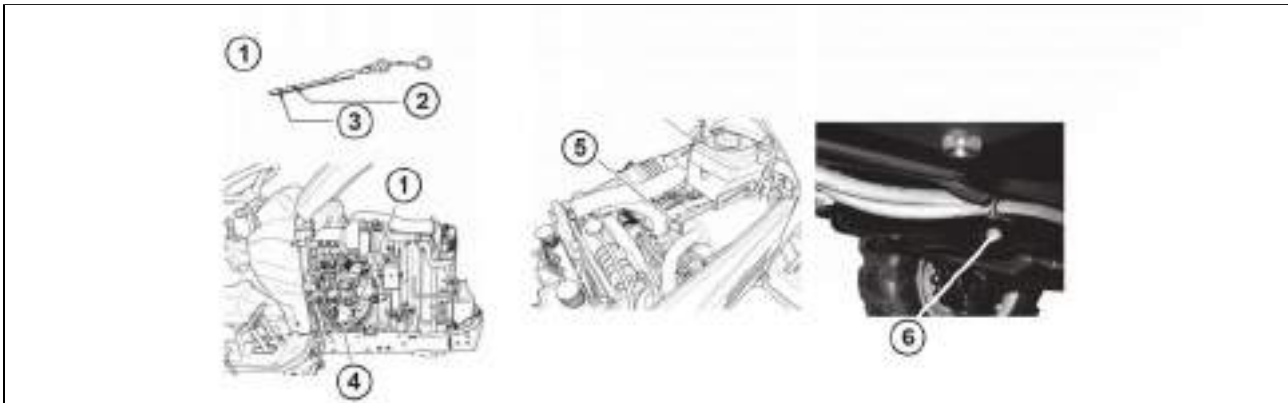
If corrosion is evident in the coolant, completely drain the system and fill with a correct mixture of water and antifreeze or corrosion inhibitor.

- 1 - Drain Valve
- 2 - Radiator Cap



Engine Oil

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 - Engine Oil Dipstick
- 2 - Upper Mark
- 3 - Lower Mark
- 4 - Engine Oil Filter
- 5 - Filler
- 6 - Drain Hole



Important: Do not overfill the crankcase with oil.

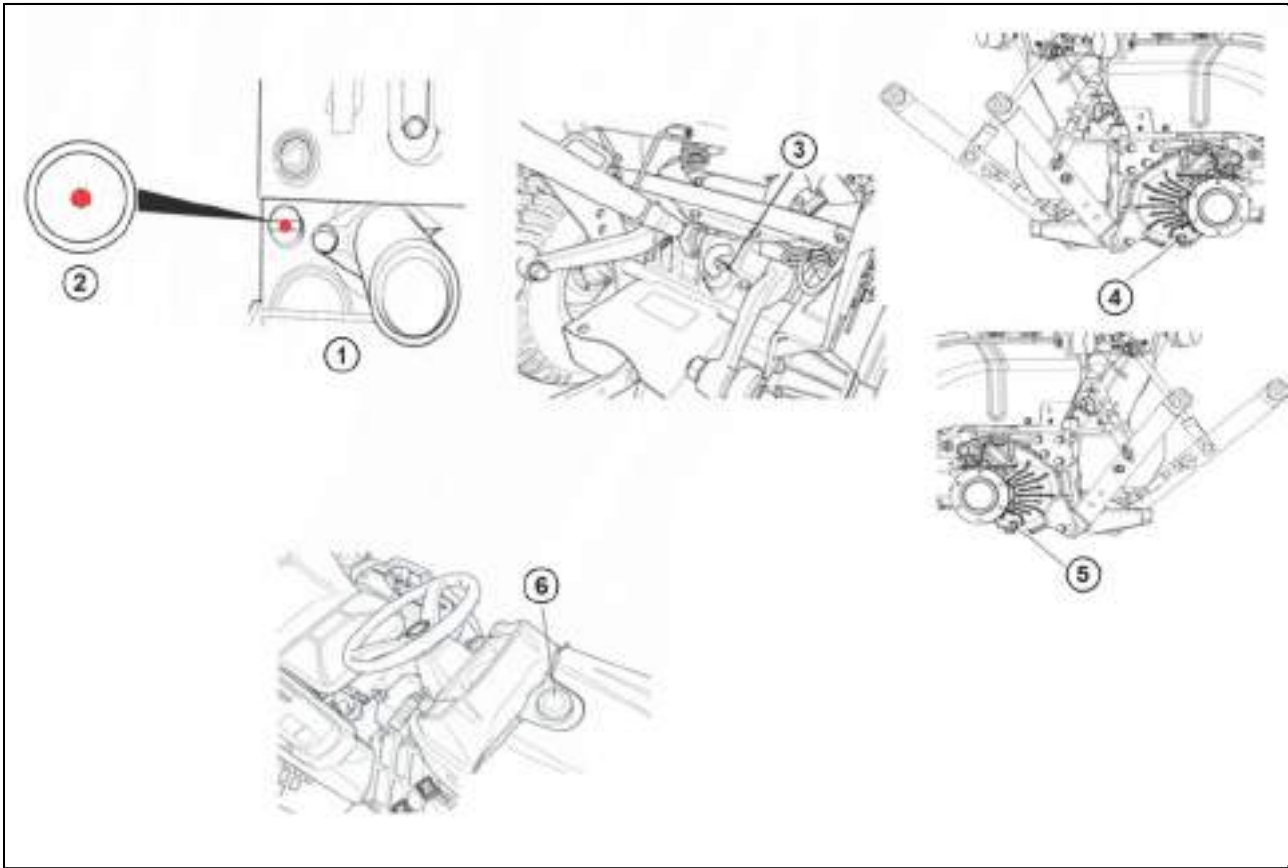
MAINTENANCE INSTRUCTIONS

Transmission Oil

Check the level using the dipstick on the back of the gearbox. If the level is low, add oil through the oil filler.



Warning: Always make sure that you use the correct oil type and oil specification when refilling or replacing oil fillings.



- 1 - Rear Side of Transmission
- 2 - Dipstick
- 3 - Transmission Case Filler
- 4 - Transmission Drain Plug (Right)
- 5 - Transmission Drain Plug (Left)
- 6 - Fuel Tank Filler

MAINTENANCE INSTRUCTIONS

Fuel

The fuel filler is located on the rear of the hood.

Use the fuel gauge to check the fuel level, refill if fuel level is too low.

Refill the fuel tank immediately after work to prevent condensation.

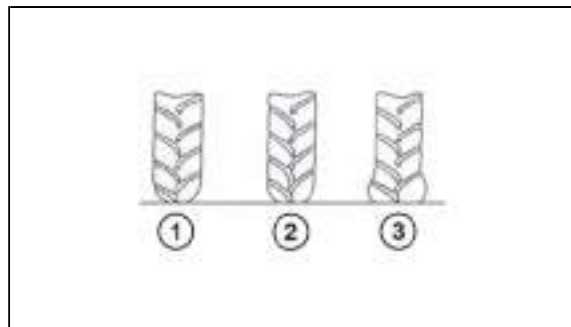
Tire Pressure

Tire pressure has a direct impact on tire life and its off-road characteristics.

Make sure that the tire pressure is correct and in accordance with the table in the Tractor Maintenance chapter.

Check the tire pressure visually before using the tractor, see the enclosed picture.

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



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



Danger: *Excess tire pressure can cause accidents!*

Steering

Check the steering wheel for excessive play.

Brake

Make sure the left and right brakes are correctly adjusted so that they can work with the same performance. The correct brake pedal play is 30~40 mm (1.18 ~ 1.57 in.).

Electrical

Check the operation of all electrical appliances and indicators.

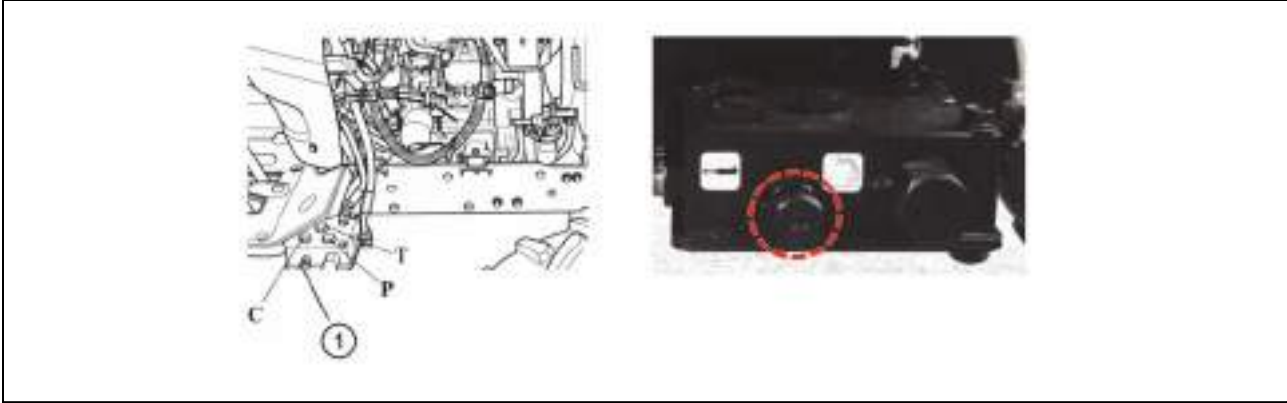
MAINTENANCE INSTRUCTIONS

Loader Installation

1. Connect P port of the loader hydraulic distributor to the line on the tractor marked P (from the PTO valve).
2. Connect the T port of the loader hydraulic distributor to the line marked T on the tractor.
3. Connect the remaining line from the hydraulic distributor to the line marked P1 (to the transmission case) on the tractor.

Loader Disconnection (Loader Valve or Loader Port)

1. Disconnect the loader hydraulic hoses.
2. Install the cap (PF3 / 8) on the pipe (PF3 / 8).



1 - Loader Selective Valve

When installing the loader, the selective valve must point up.
If the loader is not installed, the valve must point to the left.

MAINTENANCE INSTRUCTIONS

Maintenance and Adjustment Schedule

Service inspections

Service inspections are performed as follows:

The first service inspection at the state of the engine hour counter of 50 EH maximum, but not later than 6 months after commissioning of the tractor.

The second service inspection after covering another 450 EH (at the state of the engine hour counter of 500 EH maximum) but not later than 12 months after the first service inspection.

Next service inspections always after covering another 500 EH but not later than 12 months after the previous service inspection.

The service inspections are a part of tractor maintenance.

The services authorized by Zetor will provide professional performance of service inspections according to the manufacturer's instructions.

Periodical Check and Service Table



Caution: These intervals are for operation under normal conditions and need to be reviewed under severe conditions to a greater frequency.

O Check, top-up or adjust,

X Replace,

XX First replacement

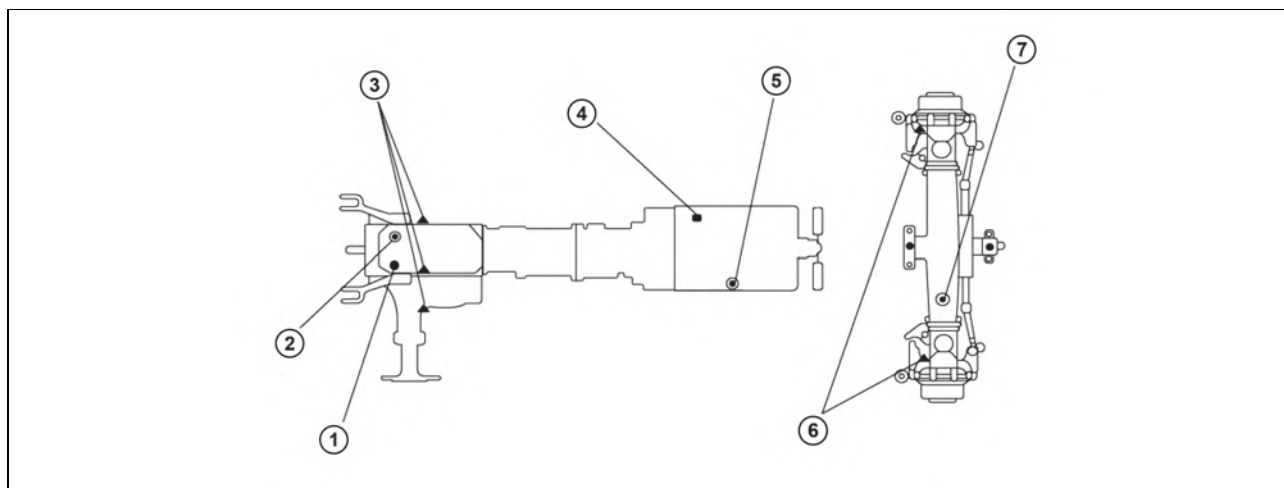
Item	Daily	Service interval (hour meter, mark)							
		50	100	250	500	750	1000	1 year	2 years
Engine oil and element	O	xx			x		x	x	
Air filter			O		x			Check every 100 EH	
Refrigerant in the radiator	O								x
Fuel	O								
Fuel filter	O				x		x		
Fan belt	O								
Battery			O						
Loose nuts and screws	O								
Radiator hose clamps	O								
Transmission oil and element		xx		O	x	O	x	x	
Clutch pedal free play	O								
Condition of both brakes pedals	O								

MAINTENANCE INSTRUCTIONS

Item	Daily	Service interval (hour meter, mark)							
		50	100	250	500	750	1000	1 year	2 years
Function of each lever	○								
Steering wheel free play	○								
Toe in							○		
Grease in front wheel hub					○		○		
Steering wheel mounting check							○		
Tightening torques of wheel nuts	○								
Functionality of instruments	○								
Adjusting the fuel control pedal							○		
Grease nipple lubrication		○	○	○	○	○	○		
Steering oil filter (HST)		xx			○		x	x	
Front axle oil (4WD)		xx			○		x	x	
Electric lines check	○								
Hydraulic hoses and pipes				○	○	○	○		

MAINTENANCE INSTRUCTIONS

Filling Scheme and Quantity Table



- 1 - Crankcase Oil Filler
- 2 - Transmission Case Oil Dipstick
- 3 - Crankcase Oil Drain Plug
- 4 - Engine Oil Dipstick
- 5 - Engine Oil Filler
- 6 - Front-Wheel Axle Oil Drain Plug
- 7 - Front-Wheel Axle Oil Filler / Check Point

No.	Part	Filling	Quantity, liters (gal)
1	RADIATOR	Fresh clear water (L.L.C) with antifreeze, mixed at least 50 %	3,6 l (0,96 US gal)
2	ENGINE	Select the appropriate engine oil viscosity according to ambient temperature and use the SAE viscosity grade service chart. (SAE 10W 30, SAE 10W 40)	2,7 l (0,71 US gal)
3	TRANSMISSION	Tractor hydraulic fluids - API GL-4 - Below -20 °C (-4 °F) ISO VG32 - Above -20 °C (-4 °F) ISO VG46	17 l (4.5 US gal)
4	FRONT AXLE	Transmission oils - API GL-4 / SAE80W / 90	3.2 l (0.85 US gal)
5	FRONT AXLE PIVOT	Grease	As required
6	FUEL TANK	Diesel EN 590	22 l (5.81 US gal)

Recommended ZETOR service fillings

Engine - ZETOR 10W-40 L-SAPS

Transmission - ZETOR EXTRA 10W-30 STOU (hydraulic gearboxes, summer operation)
- ZETOR HM 32 (winter operation)

Front axle - ZETOR LS 80W

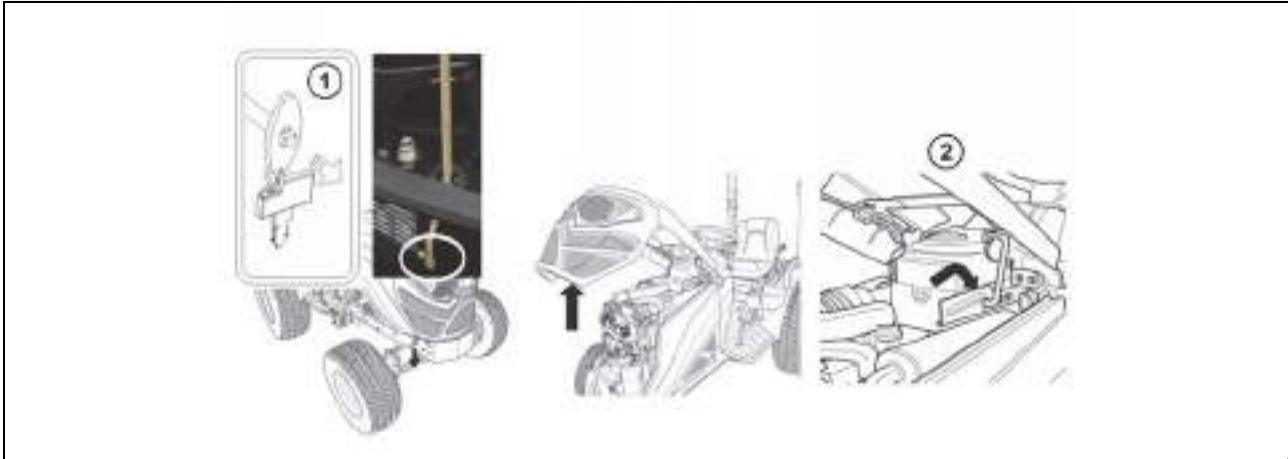
Plastic lubricant - MOGUL LA 2

MAINTENANCE INSTRUCTIONS

How to Open Covers

Hood Opening

Opening	Closing
<ol style="list-style-type: none">1. To unlock, pull the hood lock pin inside.2. Use the key to pull.	<ol style="list-style-type: none">1. To release the latch, lift the hood slightly.2. Lower the hood, until it locks.



- 1 - Hood Opening
- 2 - Lock Guiding Hook

Pull the lower center lever of the front grill counterclockwise, pull the bottom edges of the hood panel upwards, and pull the entire panel all the way forward until the lock guiding hook fits into the groove.

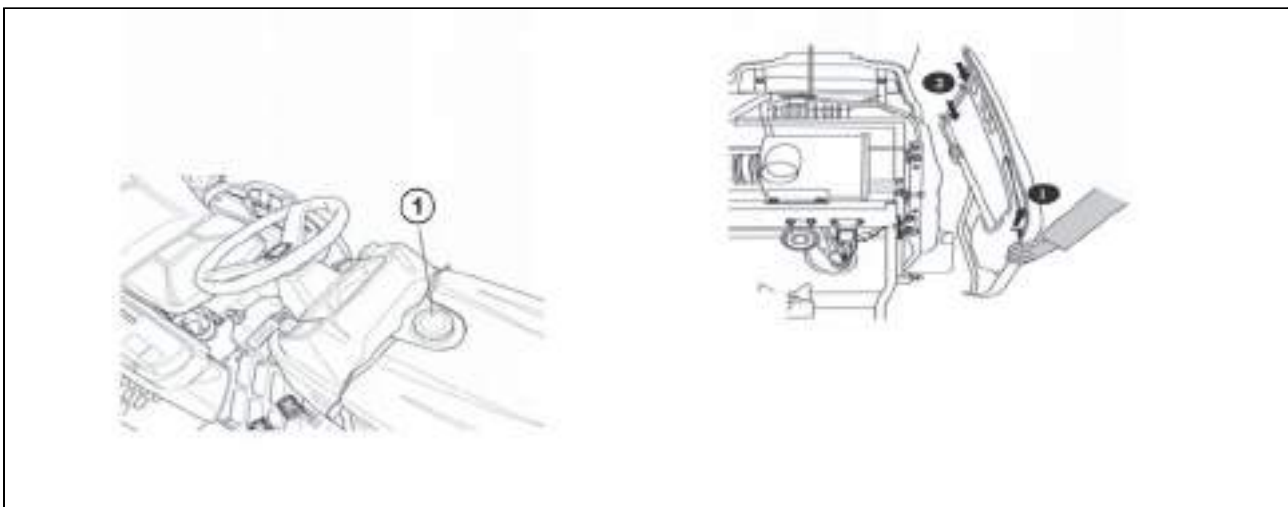


Warning: The muffler may be 'HOT'. Always be careful when fixing the lock to the groove, as the hood, the latch and the lock are close to the muffler.

Opening the Side Cover

To open the side cover, grasp it and pull the front panel upwards to separate the support pin (1) from the guides.

And pull the side panel forward again.



- 1 - Fuel Filler

MAINTENANCE INSTRUCTIONS

Fuel

Use clean diesel fuel only, EN 590.



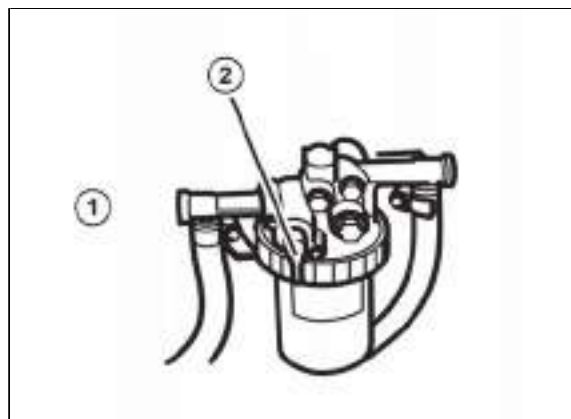
IMPORTANT: *The diesel fuel system is susceptible to dirt and water, so minimize the risk of system contamination.*

Fuel System Bleeding

1. Fuel filter tap in ON position
2. Open the tap on the fuel injection pump.
3. Fill the tank with fuel and turn the ignition on.
4. Start the engine and let it run for a while.
5. Close the fuel injection pump tap.
6. Bleeding of the system is now complete.

1 - Fuel System Bleeding

2 - Fuel Filter Tap

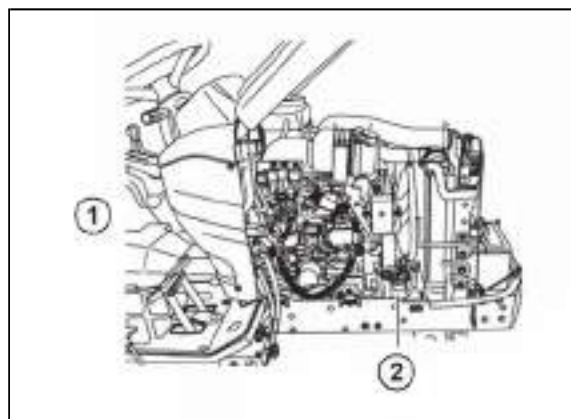


Fuel Filter Cleaning

1. Close the fuel tap.
2. Remove the fuel filter element.
3. Clean the fuel filter element in clean diesel. Replace, if necessary
4. Install the cleaned element or a new filter element.
5. Open the fuel tap.
6. Bleed the fuel system.

1 - Fuel Filter Cleaning

2 - Fuel Filter Element

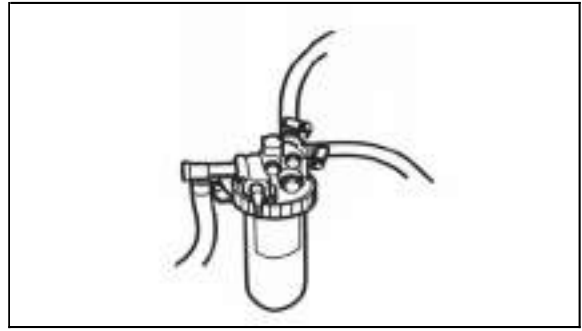


MAINTENANCE INSTRUCTIONS

Oil and Water Separator Cleaning

If any foreign material or water is visible through the inspection glass, follow these steps to remove it

1. Prepare a container to collect fuel from the oil/water separator.
2. Open the drain plug.
3. When sufficient amount of fuel has been drained, tighten the drain plug by hand.
4. Do not use any tool.

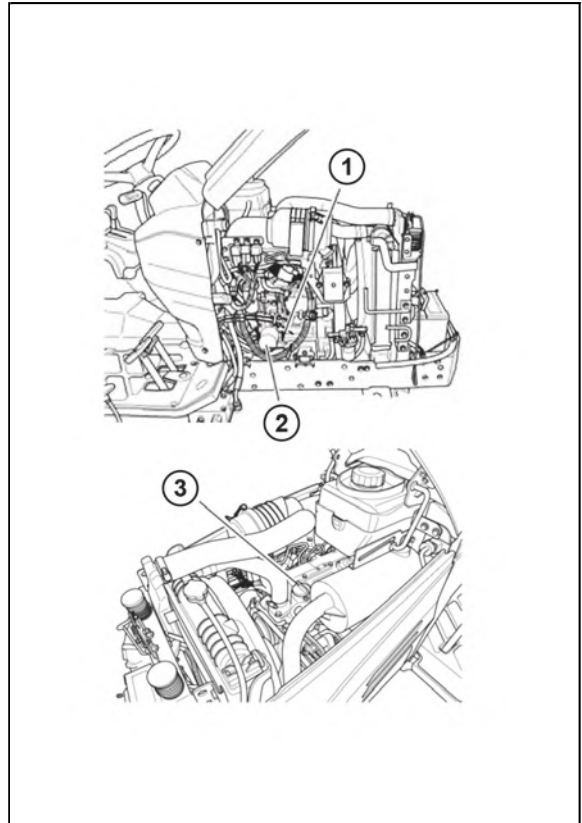


Important: Never use gasoline, thinners or any other flammable materials to clean the fuel filter.

Changing the Oils in the Tractor

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

- 1 - Engine Oil Dipstick
- 2 - Engine Oil Filter
- 3 - Engine Oil Filler



Engine Oil Replacement

Park the tractor on a level surface, turn off the engine and remove the drain plug and drain the oil. Reinstall and check the drain plug and fill the engine with oil to the correct level on the dipstick (approximately 2.7 l (0.71 US gal)).

The grade of oil to be used will depend on the ambient temperature. See the temperature table. The tractor is shipped from the factory with 10W-30 oil.



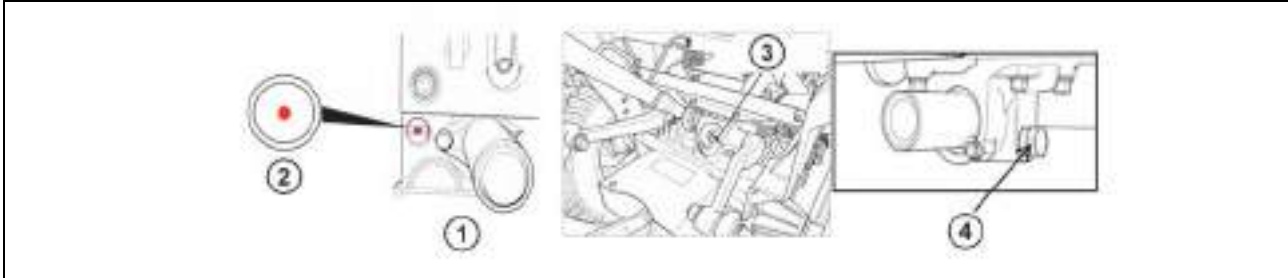
Important:

- Always replace the oil filter when changing the oil.
- Always use the same oil, as using different types of oils or oils with different specifications can cause damage. The drained oil must be disposed of in accordance with local regulations.

MAINTENANCE INSTRUCTIONS

Transmission Oil Replacement

1. Allow the transmission oil to cool.
2. Remove the drain plug from the bottom of the transmission and drain the oil.
3. Reinstall and check the drain plug.
4. Fill the transmission with new oil up to the correct level on the dipstick: Quantity 17 l (4.5 US gal)



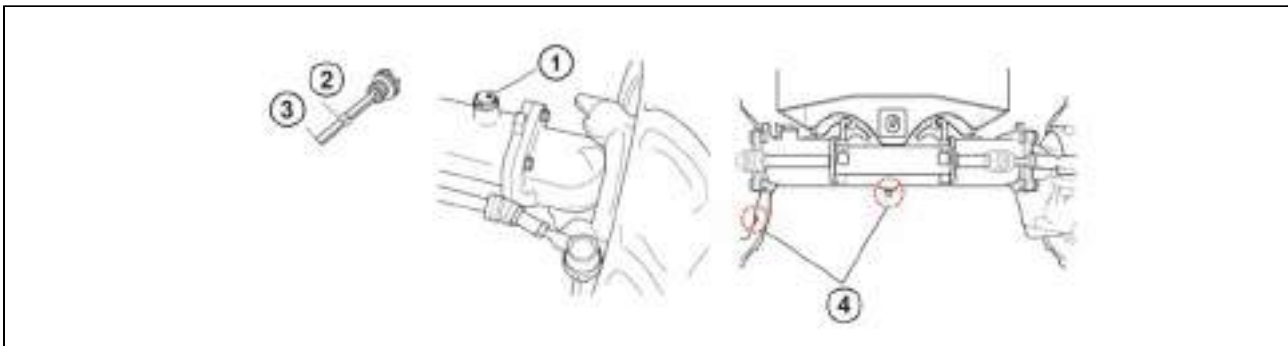
- 1 - Rear Side of Transmission
- 2 - Dipstick
- 3 - Transmission Case Filler
- 4 - Transmission Case Drain Plug



Important: Always use the same oil grade and specification when changing the oil. The drained oil must be disposed of in accordance with local regulations.

Front Axle Oil Replacement

1. Drain the oil through the drain holes from the central differential and from each final drive.
2. Reinstall and tighten all drain plugs.
3. Remove the filling/bleeding plugs from each final drive to allow air to escape.
4. Remove the dipstick from the filler and fill the front axle with up to 3.2 liters (0.85 US gal) of oil and wait for the oil to reach the final drives.
5. Check the oil level using the dipstick and reinstall the filling/bleeding plugs on both final drives and tighten them.



- 1 - Filling/Bleeding plug
- 2 - Upper level
- 3 - Lower level
- 4 - Front Axle Drain Plug



Important: After refilling the prescribed amount of new oil, the level measured by the dipstick may be higher than permitted - due to incomplete filling of the front-wheel axle drive mechanism - this discrepancy will disappear after being put back into operation. Unscrew the bleeding plugs to accelerate the proper pumping of the oil by the front axle drive system.

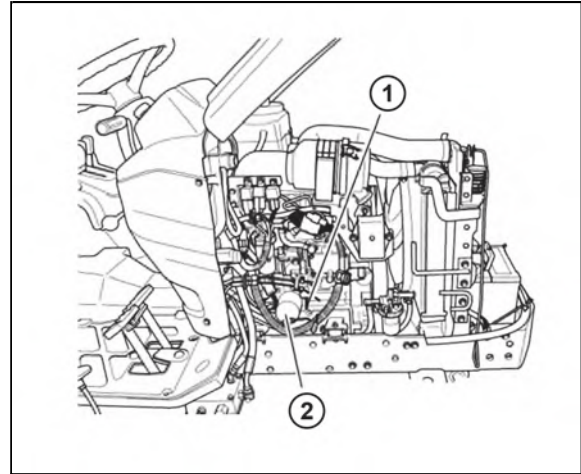
MAINTENANCE INSTRUCTIONS

Cleaning and replacing filters

Engine Oil Filter

Using a filter wrench, turn the filter counterclockwise and remove it. Lightly grease the rubber seal of the new filter, turn the filter clockwise until the seal comes into contact with the base, and then turn it a by another 2/3 turn to tighten it.

- 1 - Engine Oil Dipstick
- 2 - Engine Oil Filter



Anti Freeze

Frozen cooling water can damage the engine.

Before replacing the anti freeze solution flush the radiator.

Mix the anti freeze solution in accordance with the instructions applicable to the brand of anti freeze and the locals climate.

Replace the solution in the radiator.

In case of loss of solution due to evaporation or overflow, replace with the original mixture ratio.

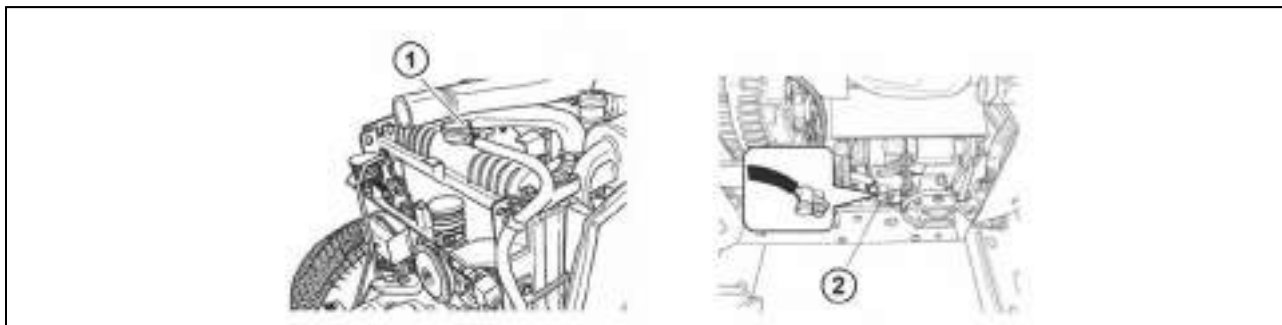


Important: Water or air under high pressure can distort the cooling fins on the radiator and thus reduce the efficiency of the radiator.

MAINTENANCE INSTRUCTIONS

Refrigerant Replacement

1. 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 refrigerant, 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 water level again and top up if necessary.



- 1 - Radiator Cap
2 - Drain Tap



Caution:

- *Do not remove the radiator cap on a hot engine.*
- *Allow the engine to cool down and then turn the cap slowly to ensure, that there is no excessive pressure in the radiator.*



Caution:

- **Serious burns, can result from the contents of pressurized, hot radiators.**
- **Allow the engine to cool down completely before opening radiator cap.**

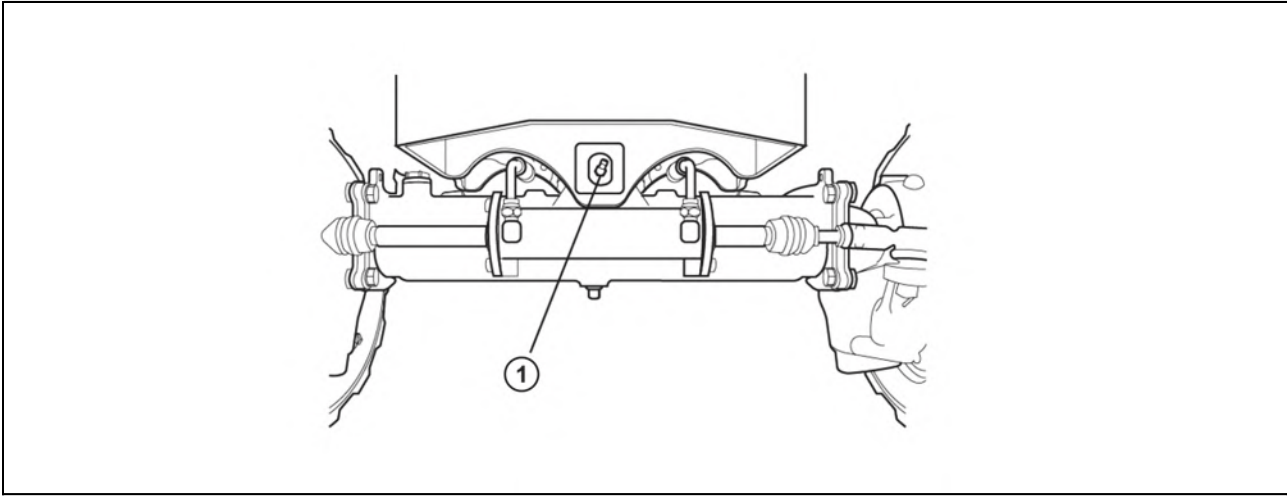
MAINTENANCE INSTRUCTIONS

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.

* Front Axle Pivot Pin



1 - Grease Nipple

Setting the play of controls

Adjusting the Clutch

Using the clutch over a period of time will increase the free play.

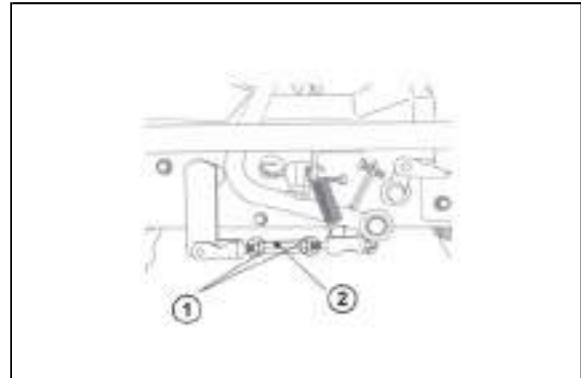
The correct free play of the pedal is 0.78~1.18 in. (20~30 mm).

To adjust, loosen the locknut on the turnbuckle and adjust.

Check the adjustment and tighten the locknut if the free play is correct.

1 - Lock Nut

2 - Turnbuckle



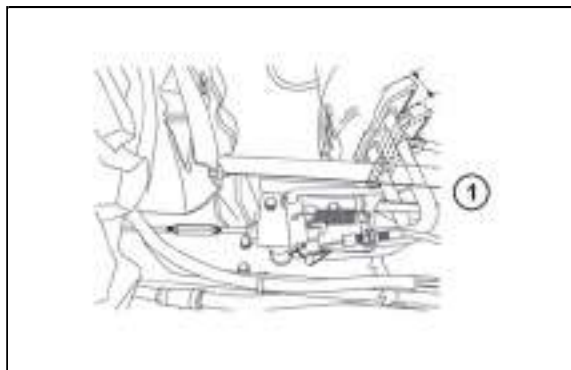
MAINTENANCE INSTRUCTIONS

Adjusting the Brakes

As is the case with the clutch, use of the brakes will change the pedal free play and the balance between the right and left pedal.

The correct pedal free play is 30~40 mm (1.18~ 1.57 in).

1 - Play



Adjustment Method

Loosen the double locknuts to adjust the brake.

Turning it to increases the free play, or decreases it.

Tighten the double locknuts and confirm to fix the Nuts.

Check that the free play is correct and the same on both pedals to ensure even braking.



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.***

Adjusting the Throttle Leve

If the hand throttle lever is loose or does not move properly, contact an authorized service center to solve the problem.

Adjusting Toe-in

If the convergence is set incorrectly, it can cause severe vibration of both the steering wheel and the tractor.

The correct free play is 2 ~ 6 mm (0.08 ~ 0.24 in.). We recommend that this setting is carried out by an authorized service.

MAINTENANCE INSTRUCTIONS

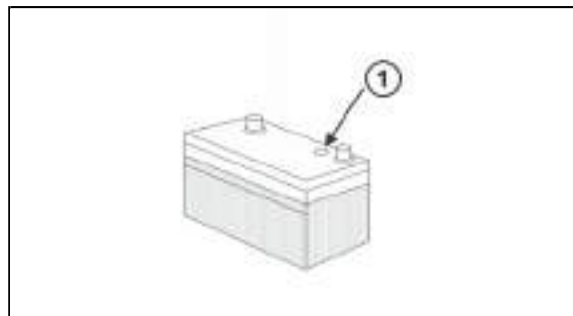
Battery Maintenance

Checking the Battery

To the battery there is an inspection charging indicator.

- GREEN: Good condition
- BLACK: Charging necessary
- WHITE: Replace battery

1 - Indicator



Important: Low electrolyte levels can cause early battery failure and sulphation.



Warning: The electrolyte contains acid which can cause severe burns. Any spillage on skin should be washed off by running water immediately.

Battery Maintenance

Low temperatures will affect the performance of batteries so take particular care of it in winter.

For longterm storage of the tractor remove the battery and keep it in a cool dry room.

If it is on the tractor while stored, disconnect the negative terminal.

Batteries will self discharge if left for a period of without use time.

To keep them in good condition charge them once a month in summer and every second month in winter.

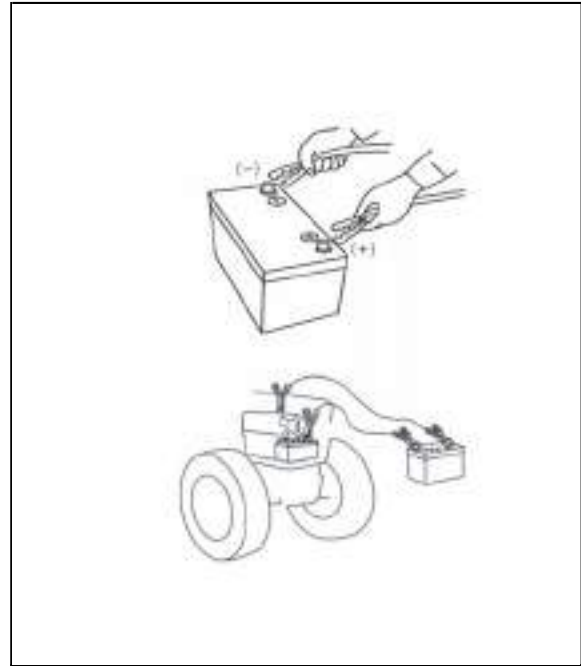
When replacing the original battery, ensure that the replacement battery is the same size.

Failure to do so can cause problems with the electrical circuit.

MAINTENANCE INSTRUCTIONS

Battery Charging

When using the battery boost charge, it should be fully recharged as soon as possible. Failure to do so will shorten the service life of the battery.



Caution:

- ***Always disconnect the negative terminal first when removing the battery and always connect the positive terminal first when fitting the battery.***
- ***When connecting the battery leads make sure not to reverse the polarity.***
- ***Quick charging will reduce battery life.***
- ***Disconnect the terminals prior to charging the battery to avoid damage to the circuit and electrical instruments.***

MAINTENANCE INSTRUCTIONS

Battery Disconnect

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.

1 - Battery disconnecter



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.

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.

Refitting the knob

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

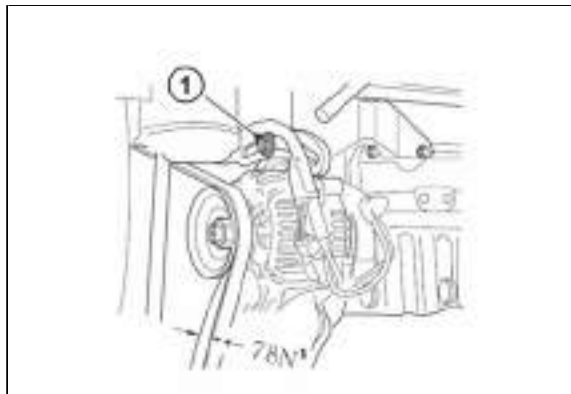
MAINTENANCE INSTRUCTIONS

Fan Belt Adjustment

1. Loosen the alternator pivot pin.
2. Move the alternator to increase or decrease the V-belt tension.

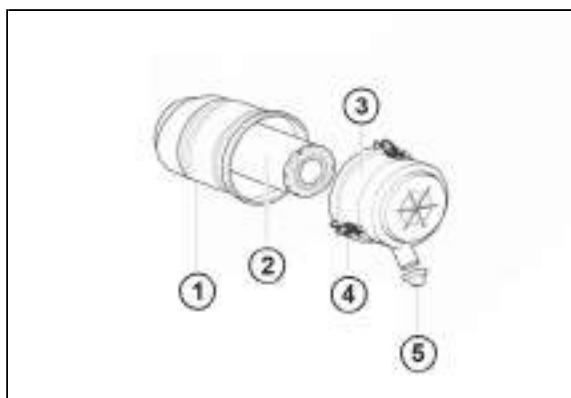
Tighten the alternator pivot pin and connecting bolt to 22 Nm (16 lb ft).

1 - Pivot Pin



Air Filter Service

- 1 - Air Filter Body
- 2 - Air Filter Element
- 3 - Lid
- 4 - Clamps
- 5 - Dust Valve



Air Filter Dust Valve Cleaning

Check if the dust valve is not blocked.

Inspect the rubber flaps for tears or scratches and check for rubber crumbles.

Replace if necessary.

To remove dust from the dust valve, squeeze it with your thumb and fingers.

Wipe the dust that settles on the outside surface around the dust valve.

MAINTENANCE INSTRUCTIONS

Element Cleaning/Replacement

Loosen the three clamps on the air filter end cap and remove the element.
Remove dust by blowing compressed air through the element (inside to outside).
Check the element for damage, replace the damaged element.
Check the condition and tightness of all hoses.



Important: *Never throw the element on the stone or concrete floor/wall. Check all connections and hoses, especially on the clean side of the air filter to ensure that no dusty air can enter the engine. Check the element for defects by inserting the light source inside the element. When reassembling, ensure that all surfaces seal properly against dust. Increase the frequency of service when working in a dusty environment.*



Replace the element if it has been cleaned five times or if it is damaged.

Checking Hoses and Lines

The fuel lines, radiator hoses, hydraulic and rubber hoses are consumables, which deteriorate by age and use. Check them regularly and replace if faulty.



CAUTION:

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

Checking the Wiring Harness and Fuses

Loose wires make inferior connections and damaged wires can cause short circuits, fires burnt wiring or reduce efficiency of components.

Replace or repair any faulty wiring or insulation.

If a fuse burns out again after it has been replaced, do not replace it with wire or a high capacity fuse, find the cause and rectify it or get an auto electrician to do so.

Where insulation is chafed or peeled off, recover the area with a good quality insulation tape. Where wiring comes out of it's fitting replace it correctly with the standard fitting.



Important: *Incorrect wiring or fuses can cause fire both on the tractor and in the surrounding area, therefore ask an authorized service center to carry out inspections every year. Fuel lines and wires age by use. Ask an authorized service to inspect them at least every 2 years and replace them as required.*



Important: *Always determine the cause of the blown fuse; otherwise, the new fuse may also blow. Never use a wire instead of a fuse of the correct capacity.*

MAINTENANCE INSTRUCTIONS

Replacing Fuses

The circuit has 8 blade type fuses in its wiring circuit.
When a fuse has blown replace it with one of the same value.
Using a large capacity fuse or wire burn out the wiring system.
Use fuse tongs to replace fuses.

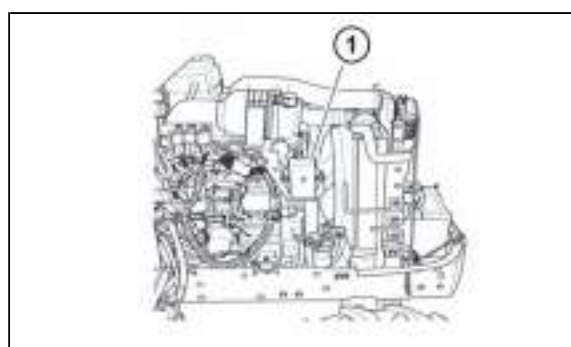
- 1 - Normal condition
- 2 - Blown



Main Fuses

The wiring harness is equipped with three main fuses to protect electrical devices.
However, when the main fuse blows, the whole circuit does not work.
Always check the reason and repair it before replacing the fuse for the fuse of the same value.
To indicated the blown fuse, it will be discolored.

- 1 - Fuse Box



Maintenance

Service before Daily or Short Term Storage

Wash the tractor and keep it clean.
Fill fuel tank to prevent condensation and corrosion.
Lower all implements to the ground before parking the tractor.
For long-term storage, contact your authorized service center.

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.*

MAINTENANCE INSTRUCTIONS

Long-term Storage

When the tractor will not be used for a long time perform the cleaning as for short term storage.

Drain and replace 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.

Lubricate all lubrication points on the tractor.

Check the tire pressures if necessary to overinflate 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.



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.

MAIN TECHNICAL PARAMETERS

The specifications on the following pages are for your reference.

Consult your Zetor authorized service center for further information regarding your tractor and implements. ZETOR TRACTORS a.s. continually improves its policy and reserves the right to change prices or technical specifications of the machine at any time without prior notice.

Dimensions and weights are approximate and the images do not necessarily show tractors under standard conditions.

Consult your Zetor authorized service center for accurate information on any particular tractor.

Specifications

MODEL		Compax CL 25 NC
Engine	Manufacturer	Yanmar
	Model	3TNV76-UD
	Type	Water-cooled, four-cycle diesel
	Nominal power	18.9 kW (25.3 HP) / 3,000 rpm
	Number of cylinders	3
	Displacement (cm ³)	1,116 cm ³
	Bore and stroke	76 mm x 82 mm (2.99 in. X 3.23 in.)
	Rated speed (rpm)	3,000
	Maximum speed (rpm)	3,210 ± 25
	Idle speed (rpm)	1,000 ± 25
	Accelerator	Hand + foot
	Compression ratio	23.5: 1
	Ignition sequence	1-3-2-1
	Injection Pump	Inline (YanmarML)
	Lubrication type	Forced closed circuit
	Cooling System	Water-cooled, forced circulation
	Refrigerant Volume	3,6 l (0.95 US gal)
	Air Filter	Single Element
	Muffler	Horizontal
	Fuel	Diesel Fuel in EN 590 Standard
Fuel Tank Capacity	22 l (5.8 US gal)	
Electrical System	Battery	12 V 50 Ah (at 20h)
	Starter System	Starter with preheater
	Starter Power	1,2 kW
	Alternator	12 V 40 A

MAIN TECHNICAL PARAMETERS

* Speed Chart (km/h) (Rated Engine Speed)

	R1	R3	R4
L-1	0.98	0.85	0.81
L-2	1.74	1.51	1.44
L-3	3.04	2.65	2.53
H-1	5.33	4.64	4.43
H-2	9.47	8,24	7,86
H-3	16,57	14,42	13,75

Weights and Tires

MODEL		Compax CL 25 NC	
Tires	R1	Front	6-12
		Rear	9.5-16
	R4	Front	20x8-10
		Rear	27x12.5-15

(Unit: kg)

No.	Axle	Tire dimensions including load index and speed category symbol	Rolling radius (mm)	Rated tire load per tire [kg]	Maximum permissible axle load	Maximum permissible vehicle weight	Permissible vertical load per connection point	Tread (mm)	
								Min.	Max.
1	Front	6-12, 4PR 62 A6 R-1	275	265	530	1,400	350	893	
	Rear	9.5-16, 6PR 96 A6 R-1	383	710	935			924	
2	Front	195/60-10 87 A2 (20X8-10, 4PR) R-4	223	545	665			1,038	
	Rear	320/50-15 110 A2 (27X12.5-15, 4PR) R-4	320	1,060	935			970	

* These specifications are subject to change for improvement without prior notice.

MAIN TECHNICAL PARAMETERS

Noise Levels

This tractor is approved in accordance with the applicable European Commission directives.

To avoid increased noise levels, proceed as follows: - Reinstall all sound-damping panels and materials after maintenance and repair work.

- Do not make any changes to the tractor that could increase noise emissions.
- Beware of any unusual noise or vibration; if you notice any unusual noise or vibration, park the tractor in a safe place and stop it. Inform the responsible person about this situation. Avoid prolonging machine use.

Reference standards for noise level measurement:

- Maximum noise level at operator's ear, with the engine at normal operating temperature and measured in accordance with the test method described in European Directive 2009/76EC.

Model	NOISE LEVELS
	ROPS Noise level at operator's ear [dB (A)]
Compax CL 25 NC	89.0

- Maximum noise level measured with the tractor in motion and with the tractor stationary, measured in accordance with the method described in European Directive 2009/63/EC.

Model	NOISE LEVELS	
	Maximum external noise level with the tractor in motion, db (A)	Maximum external noise level with the stationary tractor, db (A)
Compax CL 25 NC	77.5	77.5

Vibrations Related to Operator's Seat

In order to minimize vibrations transmitted throughout the body, these best practice rules must be followed

- Use the most suitable implement available for the tractor and relevant task
- Adjust the seat to suit your weight and height
- Check the cab suspension periodically and replace it if damaged
- Check the tire inflation pressure
- Use the front axle suspension, if fitted
- Adjust the tractor speed during transport, so that the vibration level is kept to minimum.

The seat vibration values obtained from the seat approval in compliance with 78/764/EEC (as amended by 1999/57/EC) are shown in the following table.

Specifications

Input vibrations: Category A, Class I, II and III

Ambient temperature: 23 °C

Seat type			Vibration level corrected for seat
W15SSS	Light driver	59 kg	1.24 m/s ²
	Heavy driver	98 kg	1.12 m/s ²

NOTES

TROUBLESHOOTING

TROUBLE		CAUSE	MEASURE
Engine	When the main switch is turned, the starter does not start	Clutch pedal released Dead battery Switch defect	Depress the clutch pedal Recharge or replace the battery Contact an authorized service
	The starter is working, but not enough to rotate the engine	Low battery voltage Poor grounding Thick oil	Recharge the battery Clean and tighten the grounding wire Drain the oil and replace it with the correct oil
	The starter operates correctly, but the engine does not start	Air in the fuel system Clogged fuel filter No fuel supply The glow plug is disconnected or does not work	Bleed the system Clean or replace both filters Fill the tank or open the tap Contact an authorized service
	Engine speed is irregular	Air in the fuel system Defective injector Leaking fuel pipe	Bleed the system Contact an authorized service
	Engine stops at low speed	Poor fuel injection Defective injection pump Poor valve play Incorrect idle adjustment Defective injector	Contact an authorized service
	Engine suddenly stops	Lack of fuel Defective injectors Engine seized due to lack of oil, poor oil quality or lack of refrigerant	Fill the tank and bleed the fuel system Contact an authorized service
	Engine is overheated	Lack of refrigerant Broken or incorrectly tensioned fan belt Clogged air filter element Clogged radiator Low oil level	Add refrigerant Adjust or replace Clean or replace air filter Clean the radiator core Refill the oil to the correct level

TROUBLESHOOTING

TROUBLE		CAUSE	MEASURE
Engine	White smoke from the exhaust	Oil level too high Low level of fuel or bad quality fuel	Reduce to the correct amount Contact an authorized service
	Reduced engine power	Clogged injectors or carbon on them Low compression Leaking valve seat Incorrect valve play Incorrect valve timing Lack of fuel Clogged air filter	Contact an authorized service Refill tank and check fuel quality Clean the element
	The oil indicator light comes on when the engine is running	Low oil level Low oil viscosity Defective pressure switch Clogged oil filter	Refill to correct level Replace with correct oil Replace the defective part Contact an authorized service
	The alternator indicator light comes on when the engine is running	Defective power line Defective alternator Defective battery Broken or loose alternator belt	Contact an authorized service Add or replace Replace or adjust

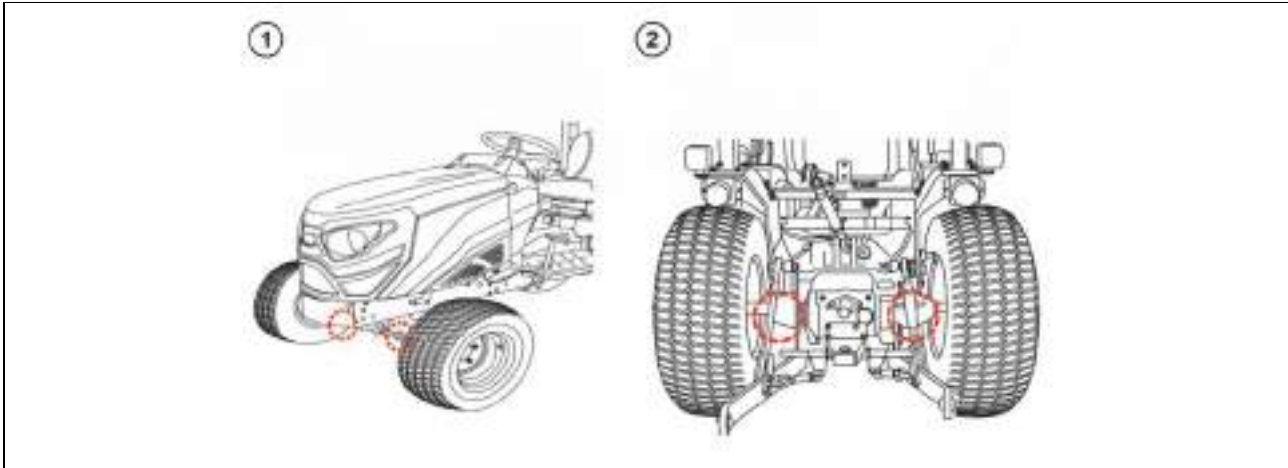
TROUBLE		CAUSE	MEASURE
Clutch	Clutch slips	Improper adjustment	Adjust the correct play
		Worn or burned lining	Contact an authorized service
	The clutch cannot be disengaged	Improper adjustment Rusty clutch lining	Adjust the correct play Contact an authorized service
Brake	The brake does not work	Incorrect free play Worn or burned lining	Adjust the correct play Contact an authorized service
	Brake pedal does not return	Defective return spring Lack of lubricant in joints	Replace the spring Remove rust and lubricate with grease
Hydraulic system	Hydraulics does not lift the implement	Low engine speed Lack of transmission oil Air in the system Clogged suction filter Defective pump Defective hydraulic valve Defective cylinder	Increase the engine speed Refill the oil to the correct level Repair or replace the pipe or replace the O-ring in the joint and tighten Clean and change oil Contact an authorized service
		Oil leaks from lines	Loose lines joints Cracked lines
	The relief valve squeaks while 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

TROUBLE		CAUSE	MEASURE
Steering	Steering wheel vibrates	Incorrect toe in Incorrect tire pressure Loose components	Adjust the toe in Inflate the tires to the correct pressure Tighten or replace
	Excessive steering wheel play	Worn steering shaft Worn components	Contact an authorized service
Electrical devices	Dead battery	Defective power line Defective alternator Defective regulator Broken or loose alternator belt	Repair, reconnect, or retighten as required Contact an authorized service Replace or adjust
	Before performing any other procedures, first check the electrolyte level in the battery. Top up if necessary and clean and tighten the terminals.		
	Low intensity of headlights	Low battery voltage Defective power line	Recharge or replace Repair or replace if necessary
	The headlights do not work	Blown lightbulb Blown fuse Defective contact	Replace the bulb Replace the fuse Repair or replace and check grounding
	The horn does not work	Faulty horn button Defective power line Defective horn	Replace the button Repair or replace Replace the horn
	Indicator does not work	Blown lightbulb Defective light switch unit Defective power line	Replace the bulb Replace the unit Repair or replace

TROUBLESHOOTING

Tractor Lifting



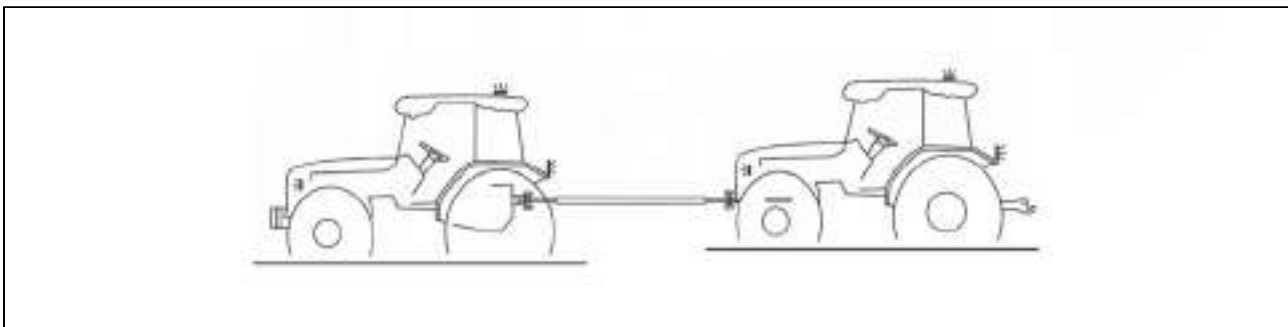
- 1- Front Axle
- 2 - Rear Axle

- If the tractor is to be lifted for service, take it to a suitably equipped workshop.
- Before carrying out any task on the tractor, carry out the following operations. Engage the front axle drive, engage first gear, engage handbrake, and secure the wheels in contact with ground with wedges.
- Before lifting the tractor, prevent it from swinging by placing wooden wedges on the front axle.
- Use jacks of appropriate load capacity and place them in the middle of the front and rear axles, paying due attention to the weight distribution.
- There are no plates on the tractor where the lifting point should be, as it would be very difficult to place them in the available areas and because they could be easily removed or erased during normal tractor operation.

NOTE: Position the jack at the appropriate lifting points, depending on the type of operation and in accordance with the safety procedures described above.

Towing the Tractor

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



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.

TROUBLESHOOTING

Towing with the Engine Running

Towing with the engine running can be carried out when forced gearbox lubrication is ensured:

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

To tow the tractor, use only the standard tow bar attached 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 a cotter pin. Clean all front and rear lights required for road towing and make sure they are in working order

Before starting towing, check the following:

- Disconnect all implements from the tractor
- Connect together the two brake pedals
- Switch off PTO and differential lock
- Set the main gear shift and reverse lever to neutral
- Move the range shift lever to the 'fast' position
- Move the creep speed lever to neutral
- Put on the SMV (Slow Vehicle) sign and turn on the beacon light and hazard warning 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



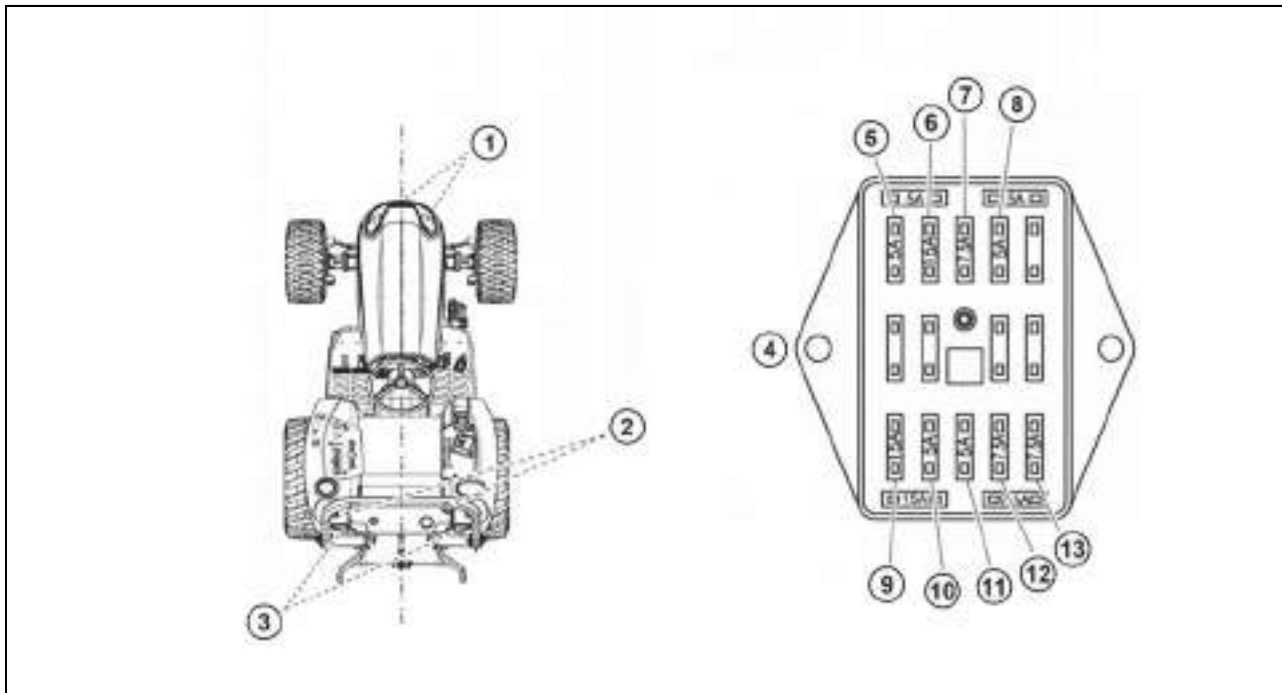
Important: With engine stopped and with forced gearbox lubrication system inoperative the tractor can be transferred to a service centre only when loaded onto a transporter.

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

NOTES

WIRING DIAGRAM

- Drawing showing the location of the fuses
- Wiring diagram of electrical components



- 1- Headlights 12 V / 55W
- 2 - Combined Lights 12 V / 21 W / 5 W
- 3 - Brake Lights 12 V / 21 W / 5 W
- 4 - Main Fuse
- 5 - Hazard Warning Lights (5 A)
- 6 - Clutch (15 A)
- 7 - Engine Stop, PTO (7.5 A)
- 8 - Glow Timer (5 A)
- 9 - Lights, Horn (15 A)
- 10 - Instrument Panel (5 A)
- 11 -Turn signal lights (5 A)
- 12 - Work lights (7.5 A)
- 13 - Brake Lights, Drivetrain (7,5 A)

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