

# User manual Tauros ZX25







We make work fun!

# Home

Thank you for purchasing a Tauros ZX25 tractor.

This manual describes and explains the correct use, simple maintenance methods of the Tauros tractor ZX25e.

Before use, please read and understand the contents of this manual carefully and follow the instructions in order to take full advantage of the tractor's excellent performance and ensure safe and comfortable operation.

After reading, keep this manual with you so that you can easily refer to it when you encounter problems. Please note that some components may be changed to improve product quality and performance or for safety reasons. In that case, the product may differ from the contents of this manual.

# Safety first!

The warnings in this manual and the warning labels on the machine indicate the correct ways to use the machine and failure to follow them may cause personal accidents.

Please read and follow the operating instructions carefully.

If the warning label is dirty or peeled off, order it from Tauros or our dealers and make sure these labels are in the correct place.



Důležité!

Označuje, že nedodržení bezpečnostních opatření bude mít za následek smrt nebo vážné zranění.

Označuje, že nedodržení bezpečnostních opatření může mít za následek smrt nebo vážné zranění.

Označuje, že nedodržení bezpečnostních opatření může vést ke zranění.

Označuje, že nedodržení bezpečnostních opatření může vést k poškození nebo nesprávné funkci stroje.

## **Purpose of the tractor**

Please use the machine only for its intended purpose and do not modify it in any way. Please note that you will forfeit the warranty on the machine if you use it for purposes other than those specified in the user manual.

GB/T 15370.1-2012

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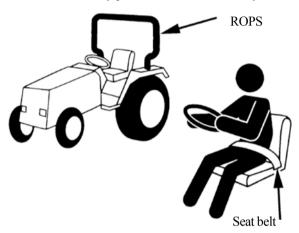
Troubleshooting engine problems ------ 68

Read **this manual** carefully before using this machine. All safety precautions listed here are important contents concerning personal safety. Make sure to observe them.

In this manual, important safety issues are divided into four categories: **Danger, Warning, Caution, and Important**. This manual applies to all types of **tractors with ROPS**.

#### Rollover protection system (ROPS)

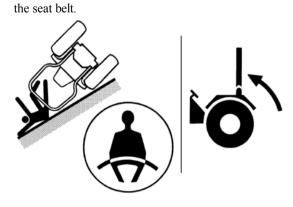
The purpose of **the ROPS** is to mitigate injury when the tractor overturns, not to prevent a rollover accident. Please observe safety precautions and drive safely.



- 1. Remember to use ROPS and seat belts when driving.
- 2. Do not drive after removing the ROPS.
- 3. Except when the ROPS on

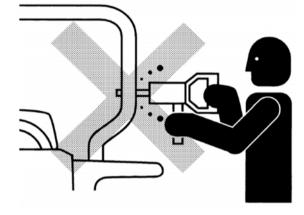
entering and exiting the warehouse is higher than the door frame, always position and secure the ROPS before driving. If the ROPS is folded down, it will not function if the tractor overturns.

4. When the ROPS is erected, secure the seat. belt while driving. When the ROPS is folded down, do not engage the



- 5. When folding or erecting the ROPS, be sure to place the implement on the ground in a level place, switch off the engine and stop the machine.
- 6. Do not adjust the ROPS. If the ROPS is damaged or bent, which affects its strength.

Replace the ROPS.



#### **Before operation**

1. Before operating the tractor, read the tractor operator's manual and manual carefully.

installed work machine and the labels attached to the machine and understand their contents before starting operation.



2. Before renting the tractor and work machine, instruct other users on how to operate it.

to other users or have them operated by other users, and make sure that other users read these instructions carefully.

- 3. Never allow anyone who does not understand the contents of this manual and labels, or children under 18 years of age to operate the tractor.
- 4. A beginner must not operate the tractor when an instructor is not on site.
- 5. Do not drive the tractor after drinking alcohol or if you are unwell, ill or pregnant.
- 6. Please do not wear towels, belts, slippers or be barefoot while driving the tractor. Otherwise accidents may occur due to clothing becoming entangled in the machine or slipping and falling. For safety, wear a helmet, non-slip footwear, safety glasses and gloves as necessary.

## Please read carefully

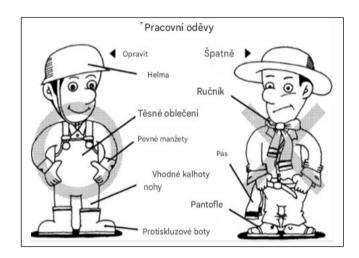
7. Do not modify the tractor. Modifications will affect not only the function of the tractor but also its functionality.

Cause injury and death.

- 8. Do not operate the tractor or implement with the ROPS guard removed.
- 9. Replace missing or damaged parts in good time.
- 10. Carry out daily checks on components such as brakes, clutch, steering and safety equipment, and if worn or damaged, replace them. In addition, regularly check the bolts and nuts to prevent them from loosening. (For details, refer to the chapter "Simple")

tractor service and maintenance").

 Ensure that the tractor is cleaned daily. Otherwise, trash or fuel around the battery, cables, muffler or engine could cause a fire.



#### Starting the engine

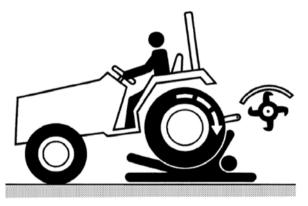
- 1. Before starting the engine, sit on the seat and check that the main gear shift lever and PTO shift lever are in **[Neutral]** and the parking brake is applied.
- 2. Do not stand on the ground when starting the engine. Do not start the engine or by direct connection.

starter. Otherwise, accidents could occur due to sudden starting of the tractor.





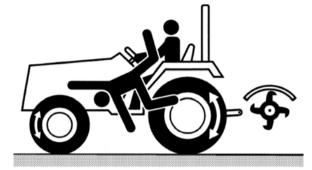
3. When starting and driving the tractor, carefully check the front, rear, left and right sides and make not allow people (especially children) to approach the tractor. Otherwise there is a risk of an accident. In addition, make sure that the front door frame or height limiting bar does not hit the ROPS.



4. When starting the engine in the interior, open the doors and windows to facilitate ventilation.

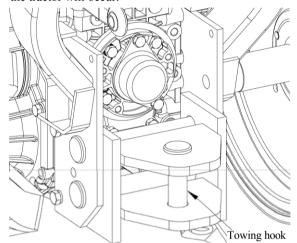
#### Driving the tractor

 When driving the tractor, do not allow other persons (especially children) to sit on the tractor, except the driver. In addition, ensure that you drive on the seat.



2. When towing, use a **towing hook** and never attach it to a vehicle hitch or axle.

three-point suspension. Otherwise, damage or tipping of the tractor will occur.



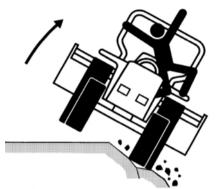
3. Do not warm up the tractor or operate it in an area with insufficient ventilation. Failure to do so will damage the exhaust gases

The gases produced by the engine can cause carbon monoxide poisoning to the driver.

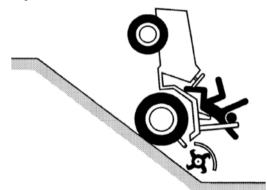


## ▲Instructions for safe operation

4. Do not drive near ditches, holes or verges where the weight of the tractor can easily cause it to tip over. In addition, in places with thick grass or puddles, invisible holes are sometimes created so that a rollover accident can occur when the tractor enters. When entering these areas, be sure to get off the tractor to make sure the area is safe.



5. There is a danger of the tractor tipping backwards when driving forward in a ditch or on the road. Muddy areas or when moving forward on a steep slope. In such cases, reverse.



6. When working with other tractors, keep each other informed and let each other know what the other is doing.

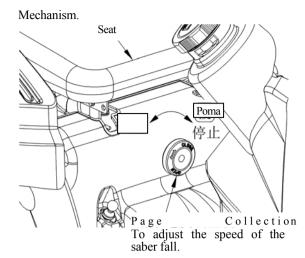
The party will do.

7. Take care when entering and leaving farmland, when climbing and descending steep slopes and when crossing ditches.

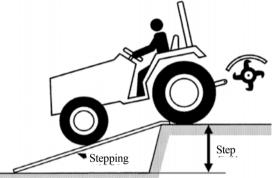
move in a straight line at low speed. At this point, be sure to engage the left and right brake pedals and check that the differential lock is off.

8. In a non-functioning condition, use the falling speed adjustment knob to lock (stop) the hydraulic mechanism, preventing the work machine from rising and falling in the event of operator error. Turn the knob to the end in the slow direction and the hydraulic mechanism will lock (stop).

## Please read carefully



9. When crossing a steep slope or a furrow with a large height difference on farmland and other occasions, secure and fasten the stepping stones and drive at low speed. Arrange stepping stones 4 times longer than the steps.



10. For steep slopes, loading and unloading the tractor, entering and leaving the tractor, crossing

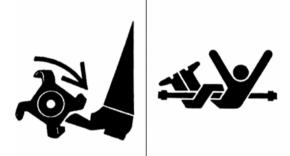
ridges, etc., a mid-track speed change is very dangerous, so set the gear lever to a safe low speed position beforehand.

 Please switch off the two-speed turning off farmland and do not use this function. In addition, do not use dual speed turning when driving at high speed. Failure to do so may cause the tractor to overturn.

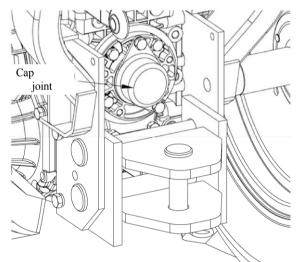


## Using the working machine

- 1. Install and dismantle the work machine on a level and safe place.
- 2. When leaving the tractor to mount and dismount, adjust, clean or repair the rotary PTO implement, the driver must wait until the implement has come to a complete stop. Failure to do so may result in personal injury due to being drawn into the working machine.



3. When the PTO is not in use, fit the PTO cover.



 When using a work machine with a PTO shaft, do not operate the work machine at a higher speed than the rotation speed.

specified for this working machine. Otherwise, damage to the machine and personal injury may result.

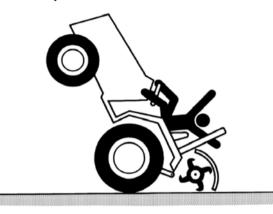
5. Use the work machine recommended for

tractor. If the work machine is too large or too small, it will cause an imbalance that can lead to machine damage or personal injury. In such cases, consult your dealer.

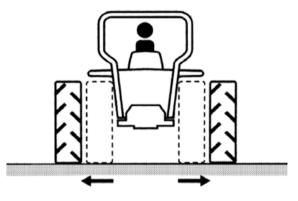
6. When installing a rear-mounted work machine,

secure and install counterweights so that the load on the steering (front) wheels equals or exceeds 20% of the total weight.

Note: If the front of the tractor is too light, a rollover accident may occur.



7. To achieve good stability when working with traction equipment, on slopes, with a front loader and other processes, the wheel track (distance between the centre of the front and rear tyres) must be increased to an unlimited extent.

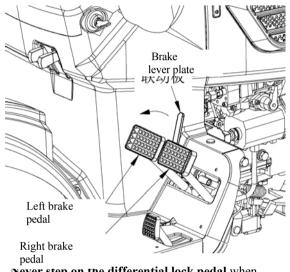


#### Driving on the road

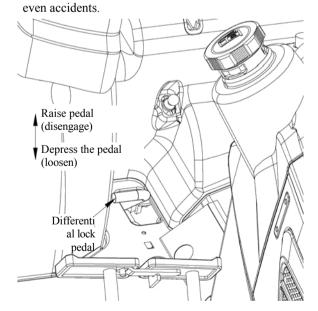
1. When driving on the road, connect the left and right brake pedals with the brake rod plate. One

careless depression of the brake pedal at high speed will cause the side of the tractor to slip, which may result in a rollover or accident.

Note: When driving on the road, the left and right brake pedals must be connected; during operation, the connecting plate can be removed as the situation requires.



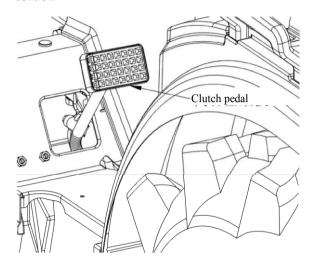
2. Never step on the differential lock pedal when driving on the road. Otherwise the tractor will not turn normally, causing damage to the tractor gears and



3. Slow down the tractor before turning. Turning at high speed may cause the tractor to overturn.

## Please read carefully

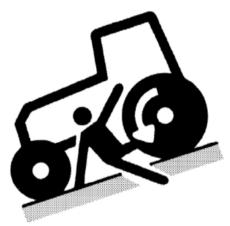
Never step on the clutch pedal when driving downhill. Otherwise, the tractor will be put into neutral and run in inertia, which can cause an accident due to loss of control.



5. Observe traffic and safety regulations. When driving, ensure that you carry out related operations.

#### Parking and storage

- 1. When parking, select a level place where the tractor can be parked stably, position the PTO shifter
  - to [Neutral] (N) and lower or lower the machine to the ground. Place the main and auxiliary gear shift levers in [Neutral] (N), turn the parking handle to [On], then turn off the engine and remove the key. If you have to stop on a ramp, place wheel stops in front of and behind the rear wheels.



- 2. Do not park where flammable materials such as hay and straw are stacked.
- 3. If you want to cover the tractor with a tarpaulin, do so after the muffler and engine have cooled sufficiently.

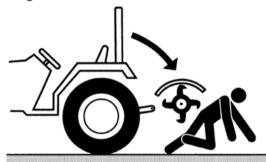
#### Checking, refuelling and maintenance

- Park the tractor on level ground, put the PTO s h i f t e r in [Neutral], lower the work belt.
   Place the machine on the ground and set the main and auxiliary gear shift levers to [Neutral]. Turn the parking handle to [ON] and switch off the engine.
- Check and repair the engine, muffler and radiator. and other parts after they have cooled down completely. V otherwise there is a risk of scalding.



3. The machine must be locked when inspecting and repairing with the machine raised.

(stopped) using the **fall speed adjustment knob** to prevent the machine from falling. When locking (stopping), secure the jack to prevent the machine from falling.



4. When refueling or charging the battery, do not smoke or bring an open flame nearby as it may damage the battery.

There is a risk of ignition and explosion.

- 5. Read and follow the instructions carefully when connecting the auxiliary cable to a discharged battery. Note: Refer to "Emergency Treatment for Battery Failure" in the "Starting and Stopping the Engine" section.
- When removing the battery, remove the the negative battery lead first to prevent shorting. When installing the battery, connect the negative lead last.

# ▲Instructions for safe operation

- Make sure that the tire pressure specified in the owner's manual is maintained.
   Over-inflation can lead to a tire blowout and cause injury.
- 8. If the tire is scratched down to the cord threads, do not use the tire as there is a risk of bursting.
- 9. Replacement and maintenance of tyres, tubes, rims and other parts must be handled

by professional repairers.



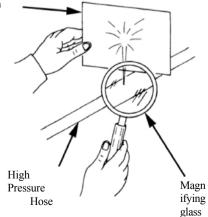
 The squeezed hydraulic oil is strong enough to penetrate the skin and cause.
 injury. Therefore, when removing hydraulic components, take care to release any residual pressure.



11. Use safety goggles and cardboard when looking for invisible oil leak holes,

use a magnifying glass and other tools to locate leaking holes. If oil splashed from the leak site penetrates the skin, it can cause allergies. Seek medical attention immediately.

Carton



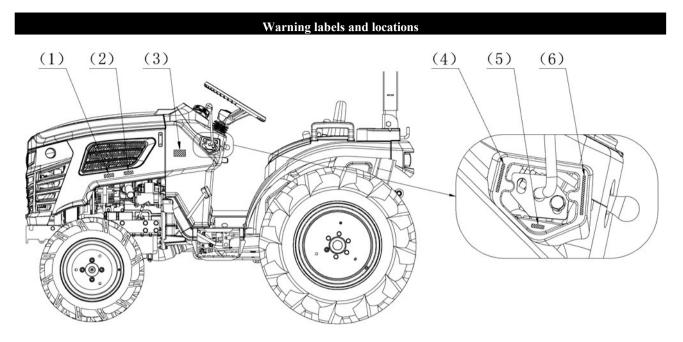
12. If waste is thrown away or disposed of arbitrarily, it will cause environmental pollution and will be punished.

According to the law.

- When waste liquid is discharged from the machine, collect it in a container.
- Do not dump waste liquid on the ground, nor pour it into rivers, lakes or oceans.
- Consult professionals when discarding or disposing of waste oil, fuel, cooling water (antifreeze), coolant, solvents, filters, rubber and other harmful substances. dealer or industrial waste disposal company and dispose of them in accordance with regulations.



# ▲Instructions for safe operation



#### (1) Exhaust warning label



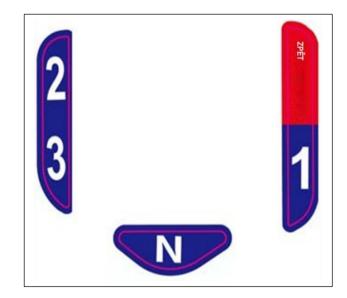
#### (2) Exhaust pipe warning label

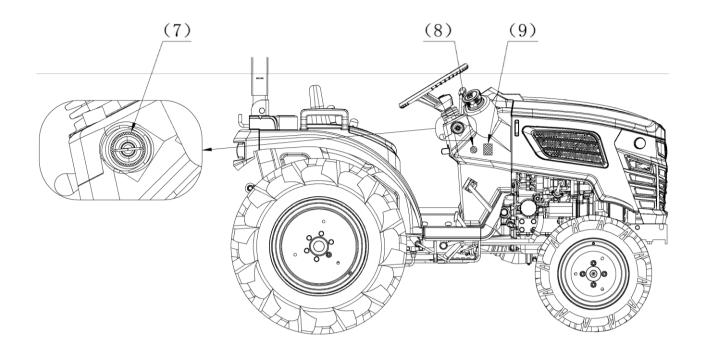


#### (3) Operation warning label



### (4), (5) and (6) Label for main gearbox gears





(7) Starter switch designation

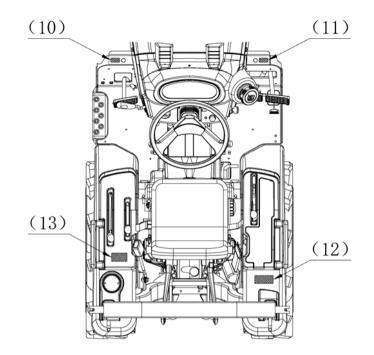


(8) Label for fuel filling



(9) Fuel filling warning label





(10) Clutch pedal label

(11) Brake pedal plate

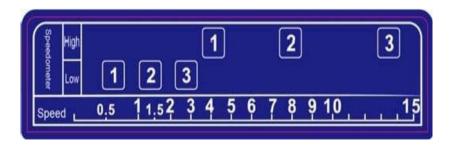




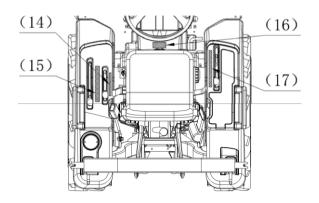
(12) Fender warning plate



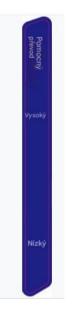
(13) Speedometer label Model: TA254-A6



# ▲Instructions for safe operation



(14) Label for the gears of the auxiliary gearbox Model: TA254-A6



- Please read carefully
- (15) Label for gearboxes



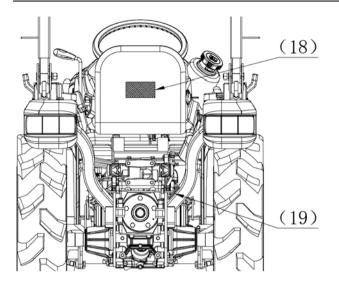
(16) Hydraulic lock plate



(17) Hoist gear label



# ▲Instructions for safe operation



(18) No standing behind the vehicle label



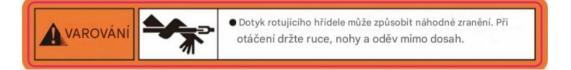
- - (20) Warning label for fan belt



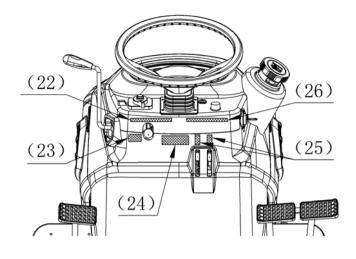
#### (21) Warning label for water tank



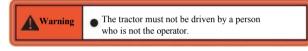
(19) PTO warning label (both sides )



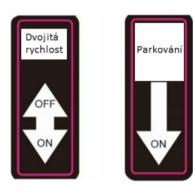
# Please read carefully



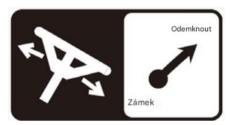
#### (22) Warning label for driver



Label for two-speed turning and parking



(23) Steering wheel adjustment label



(24) Warning label for two-speed turning



#### (25) Warning label for parking



#### Maintenance of warning labels

#### **%** Read the warning labels carefully and observe the following safety precautions.

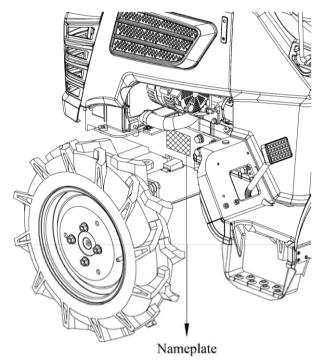
- Please keep the labels clean and undamaged.
- If the warning label is dirty, wash it with soapy water and wipe it with a soft cloth.
- When washing the tractor with a pressure washer, the label may peel off due to the high water pressure. Do
  not spray high-pressure water directly on the labels.
- If the labels are damaged or lost, order them from the dealer in time and reapply them.
- When gluing new labels, wipe the gluing surface completely and glue the new labels to the backing. original position after the surface has dried.
- When replacing a marked part with a new one, replace the label at the same time.

#### Service and Warranty Description

- 1. The warranty booklet and manual are included with the product and should be read carefully before use.
- 2. In case of any defects, suspicions and service problems during use, please contact TAUROS

s.r.o. or our authorised dealers. Indicate the "product model", "serial number" and "engine number" of the machine used.

3. Tauros has provided the dealer with a complete parts atlas. Consult it and order the required parts.



#### Spare parts delivery period

- 1. The service parts delivery period (time) for this product is 5 years from its manufacture and delivered to the user.
- 2. The delivery of maintenance parts will be terminated on the end of the above delivery period in principle, but after the end of the delivery period, if there is still demand for parts supply, the delivery period and price will be negotiated.

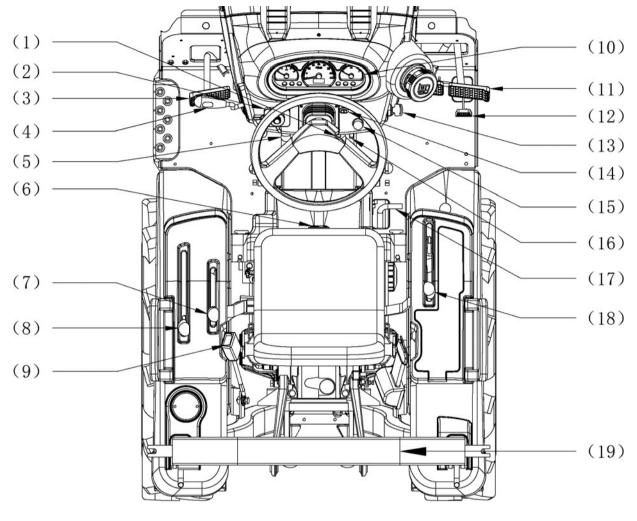


Do not modify the machine. After modification, the original performance of the machine will not be guaranteed and personal injury may occur. Neither the dealer nor the company shall be liable for any accident or injury to health or property caused by unauthorized modification of the product by the user.

Please note that if the tractor is used for purposes other than those specified and after modification, the dealer and the company will not provide warranty and post-warranty service.

#### Names of parts required for driving

Understand the correct names and functions of each component. If in any doubt, refer to the reference page listed on the part label.





Reference page

- (1) Two-speed steering handle **2**
- (2) Combination switch
- (3) Clutch pedal!
- (4) Main shifter
- (5) Locking adjustment lever 8
- (6) Knob for setting the fall speed 3
- (7) Auxiliary shift lever 8
- (8) PTO Shift Lever
- (9) Seat belts !
- (10) Instrument panel !
- (11) Brake pedal!
- (12) Pedal pedal !
- (13) Key switch!
- (14) Double flash switch

(15) Electronic Throttle Switch I

 (16) Parking handle
 20, 28

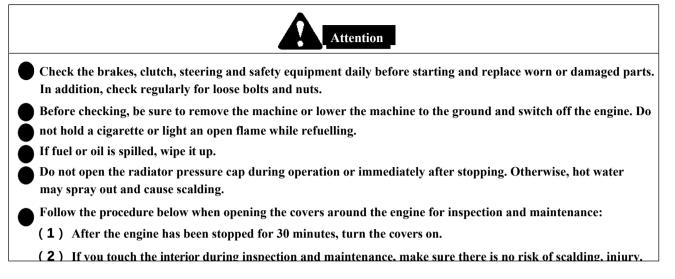
 (17) Differential lock option
 3

 (18) Hydraulic lifting rod
 55

 (19) 2095
 5

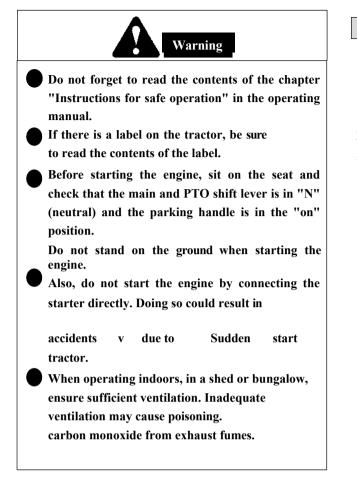
# Check before driving

To avoid trouble, it is necessary to carry out a daily check of the tractor before driving. For details, refer to "Simple tractor service and maintenance".



#### Important

- 1. Adding or changing oil
- Before checking the oil quantity, park the tractor in a horizontal position. If the tractor is parked in a tilted position, the correct amount may not be displayed.
- Be sure to use the engine and gear oil listed in this manual.

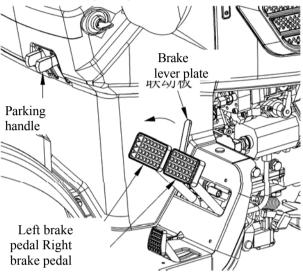


#### Starting method

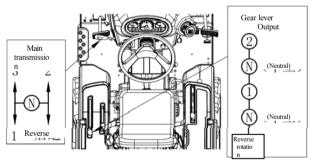
#### 1. Check that the parking handle is in the [ON] position.

If the parking handle is not in the [ON] position, proceed as follows:

- Connect the left and right brake pedals to the brake rod plate.
- 2) Depress the brake pedal.
- 3) Pull back the parking handle.



2. Set the main shift lever and the PTO shift lever to [N].

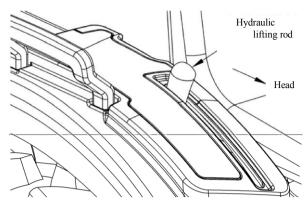


Note: If the main gear shift lever and PTO shift lever are not set to [N] (neutral), the neutral switch will activate and the engine cannot be started.

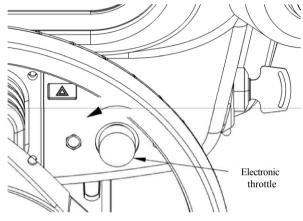
**3.** Start the machine by pushing the hydraulic lifting rod forward (forward).

Note: If the hydraulic mechanism is blocked, the m a c h i n e cannot be started. For more information, refer to "Setting the work machine starting speed" in the "Work machine lifting device" section.

## Starting and stopping the engine



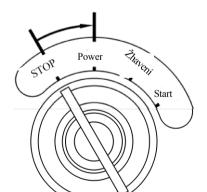
**4.** Turn the electronic throttle counterclockwise to the minimum throttle position.



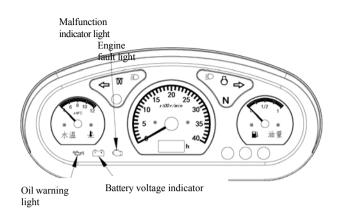


Note: The engine can be started without depressing the clutch pedal, but to ensure safety, depress the clutch pedal before starting.

6. Insert the key into the switch and turn it to the "Power" position.

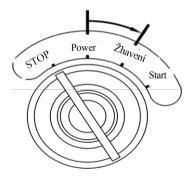


When the key switch is turned to the [Power] position, the oil light and the engine fault light come on, and the battery voltage light comes on only when the battery voltage is low or the engine is under voltage.

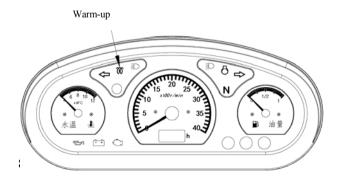


**Key to position.** The warm-up time is given in the following table. If the engine is hot, there is no need to warm it up. To start the engine, turn the key directly to the "**Start**" position.

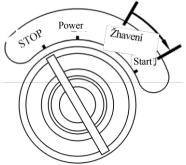
Temperature	Warm-up duration
Above 0 °C	$2 \sim 3$ seconds
0~-5°C	5 seconds
-5~ -15°C	10 seconds



Note: The warm-up light is only on during warm-up and start-up.



## Starting and stopping the engine



- **Important** ter draws a large amount of current when starting the engine, so the engine cannot be started continuously for more than 10 seconds. If the site start fails, turn the switch off for at least 30 seconds
  - and repeat the same operation.

Note: If the main gear shift lever and PTO shift lever are not set to [N] (neutral), the neutral switch will activate and the engine cannot be started.

**9.** After starting the engine, release the key handle. The key will automatically return to the position. [Power] position.

#### Important

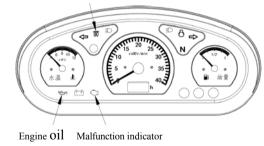
2.

- Do not put the key in the [Start] position while the engine is turning. Otherwise, the starter will be damaged.
- 10. Check the oil light, malfunction

# engine warning light, and warm-up light go out automatically.

If the oil warning light, engine malfunction warning light and warm-up warning light do not go out, stop the engine and check it.

Warm-up



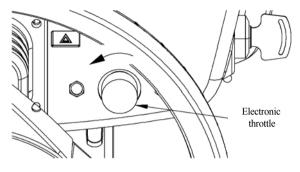
light

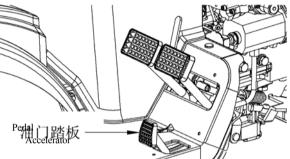
**11.** Slowly release the clutch pedal from the foot and continue to warm up at idle speed for approximately 5 minutes.

#### Stopping method

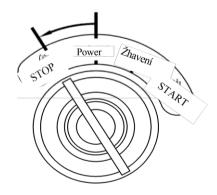
1. Slowly release the accelerator pedal from your foot and turn the electronic accelerator control.

#### Counterclockwise to minimum to keep the engine idling.





2. Turn the key on the switch to the "Stop" position to shut off the engine.

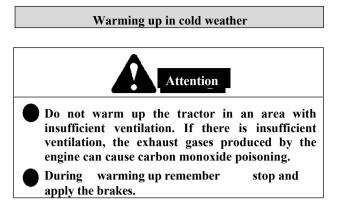


#### 3. Remove the key.

#### Important

 Be sure to remove the key to prevent misoperation by uninvolved persons and battery drainage.

# Starting and stopping the engine



After starting, perform the warm-up operation without increasing the load for about 5 minutes to allow the oil to pass through all parts sufficiently. Keep in mind that if the load is applied immediately after starting, parts may be damaged and the tractor may malfunction.

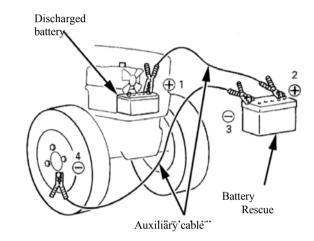
The steering mode of this product is hydraulic steering and the ISO 46 anti-wear hydraulic oil for the steering gear is also a gear oil. Therefore, be sure to warm up the steering gear according to the duration shown in the following table. If warming up is not carried out, the tractor will not reach good operating condition and failure may occur.

Temperature	Warm-up duration
Above 0 °C	About 5 minutes
Below 0 °C	More than 10 minutes

#### **Emergency treatment for battery failure**

If auxiliary cables are available (sold separately), the battery of the other vehicle can be used as a power source to start the engine.

- 1. Connect the auxiliary cables in the order shown in the following illustration.
- Connect the poles (+) of both batteries with the cable.
   Auxiliary cable.
- Connect one end of the other auxiliary cable to the (-) pole of the rescue battery and the other end to the front tire mounting nut of the tractor.



- Start the rescue vehicle and increase the engine speed slightly.
- 3. Start the tractor engine.
- 4. After the tractor has been successfully started, disconnect the auxiliary cables.
  Note: Pull the auxiliary pole cable (-) first, then t h e auxiliary pole cable (+).

#### Important

- A 12 V battery must be used for the rescue vehicle.
- The (+) and (-) poles must not touch each other when connecting.
- Avoid wrapping the cables with a cooling fan or similar rotating object.
- When connecting, check the (+) and (-) poles carefully and do not connect them in reverse. Reverse wiring can damage the tractor and emergency service. vehicle electronics.



- When starting and driving the tractor, carefully check the front, rear, left and right sides and do not allow persons (especially children) to approach the tractor. Otherwise there is a risk of an accident. In addition, make sure that the front door frame or the height limiting bar does not hit the ROPS.
- When driving the tractor, do not allow persons (especially children) other than the driver to sit on the tractor. In addition, ensure that you drive on the seat.
- Do not drive near ditches, holes or verges roads, where the weight of the tractor can easily cause the structure to collapse, thus avoiding accidents with falls.
- In areas with thick grass or puddles, extra sometimes create invisible potholes that can cause a rollover accident when the tractor enters. Therefore, the driver must get out and check beforehand.
- The tractor may reverse when climbing a steep slope, but the machine must be lowered as far as possible to avoid overturning.
- Do not release the brake when starting on a slope, first depress the clutch pedal, downshift to a low gear and then slowly depress the clutch, then release the brake when the transmission is engaged and pay attention to the coordination of the throttle control.
- When driving downhill, downshift and slowly work through the braking power of the engine. Do not step on the clutch pedal.
- When the tractor is under heavy traction or approaching from wet ground, the tractor must be gradually accelerated to prevent the tractor from reversing.
- If the tractor turns sharply at high speed, it may ...

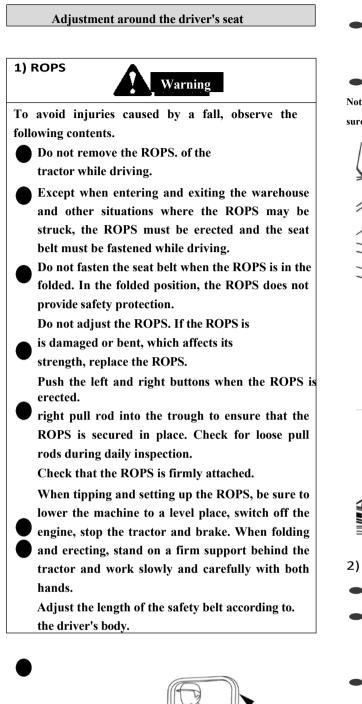
can overturn. After confirming that the differential lock is off, slow down and turn slowly.

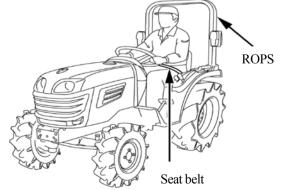
- When driving on the road, link the left and right sides.
   brake pedals together with the brake rod plate.
   Otherwise, the tractor may slip when braking.
- When transporting with the tractor, it is forbidden to overloading, exceeding the limit or speeding. Failure to do so may result in accidents.

#### Starting time (first time about 50 hours)

Please strictly observe the following rules during this period:

- 1. Avoid sudden starting and hard braking.
- 2. Do not exceed the speed limit and do not overload.
- 3. Do not work until the engine is fully warmed up.
- Slow down when driving on uneven roads or slopes to ensure safety.
- After 50 hours of operation, inspect parts and change engine oil according to the provisions of the Periodic Inspection Parts List.



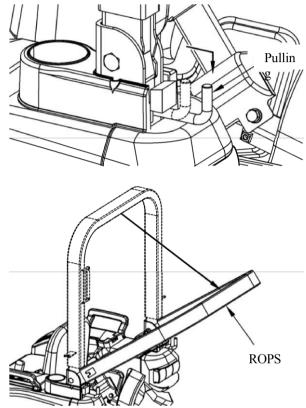


#### How to fold the ROPS

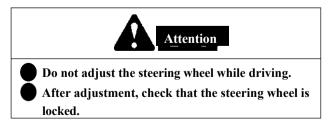
- Pull the tie rod all the way back and then slightly down to the side to unlock it. (Same for left and right side)
- Slowly fold the ROPS backwards.

Note: When folded, the ROPS may touch the work machine. Make

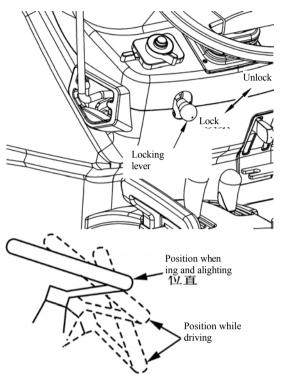
sure to work without touching the machine.



- 2) ROPS mounting method
- Raise the ROPS fully until it can be moved forward.
- Lift the pull rods up a little and then slide them forward to the bottom of the trough. (The same applies to the left and right sides)
- Check that the ROPS system is actually locked and that the ROPS system is not loose.
- 1. Steering wheel

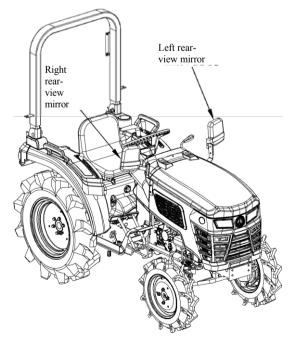


The steering wheel position can be adjusted in three stages by pulling **the locking lever** in the "unlock" direction. After adjustment, pull the lever back in the "lock" direction.



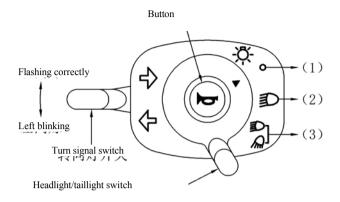
#### 2. Rear-view mirror

Sit on the tractor seat and manually adjust the rearview mirror to a position where the rear view can be fully observed.



#### **Operation lights**

#### 1. Combination switch



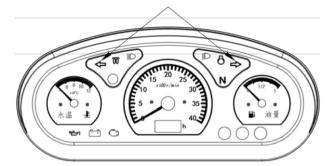
#### 1) Headlamp/rear work lamp switch

- (1) Headlamp/rear work lamp position off.
- (2) Headlamp position on.
- (3) Headlamp/rear work lamp position on at the same time.

#### 2) Direction indicator switch

- When the turn signal switch is switched on, the turn signals and turn signal flash.
- After completing a left or right turn, return the switch to the center position.

Turn indicator



#### 3) Horn button

Press the horn button and the horn sounds.

#### Starting / steering

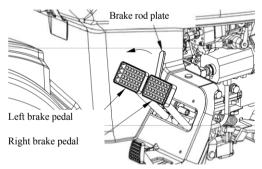
#### **1.** Check brake pedal



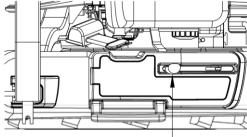
Be sure to connect the left and right brake pedals to the brake rod plate when driving on the road, climbing, driving downhill, and when crossing a ridge. If you press the single-sided brake pedal while driving on the road, the tractor may slide or tip over and cause accidents.

The brake device is designed to force the machine body to stop running. Usually the left and right brake pedals are connected by a brake clutch plate and the left and right rear wheel brakes operate simultaneously. In addition, it differs from a conventional vehicle in that the left and right side brakes are independent and the singleside brake can only brake one of the rear wheels.

- 1) When driving, use the brake lever on the move.
- 2) The brake rod can be released during agricultural work.

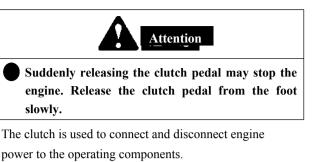


**2.** Lift the working machine by pulling the hydraulic jack backwards.



Pulling back (rear) ← hydraulic lifting rod

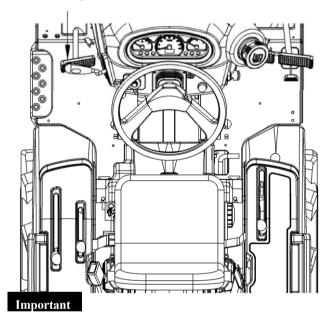
3. Depress the clutch pedal



• The clutch engages when the pedal is depressed. The brake will be disengaged.

• The clutch will engage when the foot pedal is released.

#### The clutch pedal



When using the following devices, be sure to depress the clutch pedal and disconnect the power supply to the engine before starting operation.

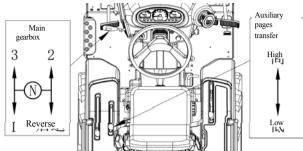
- Main shift lever
- Auxiliary gear lever
- PTO shaft shift lever
- Two-speed rotary handle

#### **3.** Select the travel speed

1) TA254-6A Specifications

Combination of both levers can achieve the travel speed

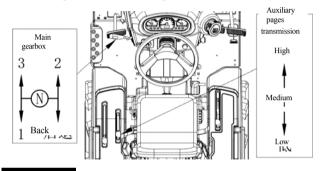
6 forward gears and 2 reverse gears.



2) Specifications of TA254-9A

By combining both levers, travel speed can be achieved

9 forward gears and 3 reverse gears.



#### Important

- Be sure to depress the clutch pedal to disconnect the power to the engine before operating the main/auxiliary gear shift levers. Gear lever operation while driving can damage the gears.
- 3) Main gear shift lever

This lever is used to select the driving speed in 3 forward gears and 1 reverse gear.

4) Auxiliary gear lever

Set it to [Low] for low speed, [Medium] for medium speed and [High] for high speed.

The auxiliary gear lever in [Low] is mainly used for agricultural work.

The auxiliary gear lever in [Medium] is mainly used for road driving.

The auxiliary gear lever in [High] is used

#### 4. Engine acceleration

1) Electronic throttle

Mainly used in agricultural operations.

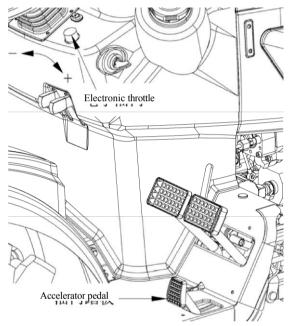
Turn clockwise (+) to increase the engine speed.

• Turn counterclockwise (-) to reduce engine speed.

2) Accelerator pedal

Mainly used for driving on the road.

- Press the pedal to increase the engine speed.
- Release the pedal to reduce the engine speed to the value set by the electronic throttle



#### 5. Release the parking brake

Depress the brake pedal, the parking handle automatically returns upwards and the parking brake is released.

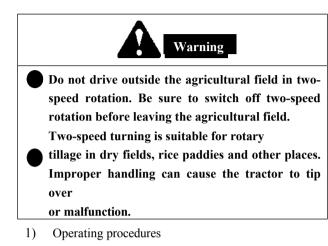
# **6.** Slowly release the clutch pedal from the foot and drive off.

#### Important

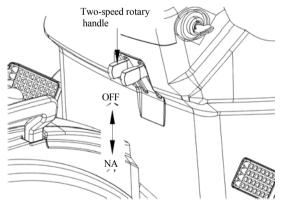
To extend the life of the clutch and reduce the time and frequency of servicing the half clutch, observe the following precautions:

- Do not use the clutch to adjust the speed. Use gear or throttle selection.
- Select the appropriate travel speed and engine speed for the operating conditions.

- Do not touch the clutch pedal while driving. Otherwise, you may use the clutch halfway without knowing it.
- **7.** Operate the two-speed rotary handle according to the actual conditions.



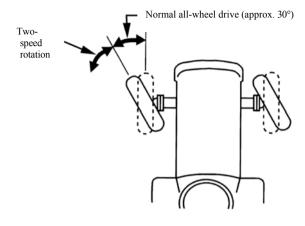
- Stop the tractor by depressing the brake pedal and adjust the steering wheel so that the front wheels run straight.
- When the low-speed gear is engaged and the two-speed handle is pulled to the [ON] position, the two-speed condition is engaged.
- When the two-speed handle is pulled to the [OFF] position, the two-speed status is turned off and all-wheel drive is resumed.



#### 2) How to use the two-speed rotary

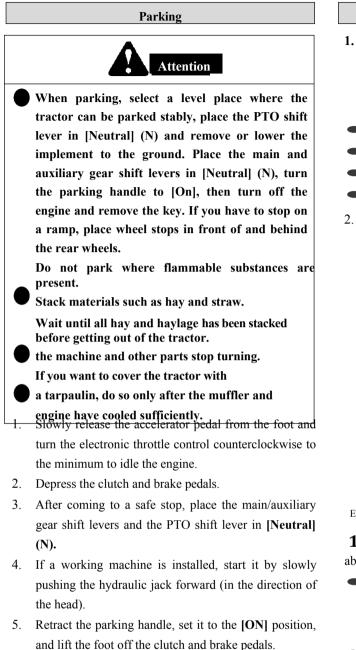
When the tractor is set in motion and the steering wheel is turned, the front wheels turn at the normal speed of the all-wheel drive until the front wheel angle reaches approximately 30° from straight ahead.

30°, two-speed rotation is activated and the front wheel starts rotating at approximately twice the previous speed. At this point, the tractor can turn smoothly with a small turning radius.



#### Important

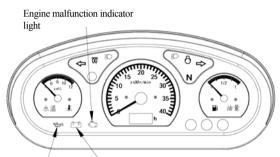
- Do not use the two-speed function if the front wheel is carrying a heavy load, e.g. a front work machine, or if the speed is high.
- If the front wheels are moving straight, switch the twospeed rotary control to [ON] / [OFF].
- Use the two-speed rotary function carefully when the shift lever of the auxiliary gears is set to [Medium] (TA254-9 A, TA304-9 A).
  - High-speed two-speed hold
     When the two-speed rotation handle is set to [ON] and the auxiliary gear shift lever is set to
     [High], two-speed rotation is automatically disabled.
     When the auxiliary gear shift lever is returned to
     [Medium] or [Low], the two-speed function resumes.
     This method can only be used in off-road operation.
     When driving on the road, set the two-speed rotation handle to the [OFF] position.



6. Turn the key to the **[Stop]** position, switch off the engine and remove the key.

#### Confirm action in traffic

- 1. When the tractor is in operation, always pay attention to ensure that the operation of the various parts is smooth. In the following cases, stop the engine immediately:
- Sudden reduction or increase in engine speed.
- Sudden unusual sound.
- The colour of the exhaust suddenly turns black.
- Illumination of the warning lights on the instrument panel.
- 2. Always pay attention to the instrument panel when operating the tractor. If the following warning lights illuminate on the instrument panel, stop the engine immediately and check the parts associated with the lights. If you cannot determine the cause of the warning lights, contact your dealer.



Engine oil lamp Battery voltage light

1 The fit of light press her light vibrication system is abnormal while the engine is running. Alarm mode:

 On page lamp flashes and . horn . intermittently, with a cycle of 0.6 seconds, and the horn sounds three times every 20 seconds.

#### 2) - + Battery voltage indicator light

Illuminates when the electrical system voltage is abnormal while the engine is running. Alarm mode:

- If the voltage is below 12.3 V, the bulb flashes with a period of 0.6 seconds and the buzzer does not sound;
- If the voltage is higher than 14.8 V, the bulb flashes and the horn sounds intermittently, with a cycle of 0.6 seconds, with the horn sounding 3 times every 20 seconds.

### 3) H Motor fault light

Illuminates in the event of a motor failure or abnormal operation. Alarm mode:

- The light flashes and beeps. intermittently, with a cycle of 0.6 s e c o n d s, and beeps twice for each fault.
- **3.** When operating the tractor, always pay attention to whether the instrument display is normal.
- 1) Fuel gauge
- If the indicator is approaching the red area of the fuel level, refuel as soon as possible. Since there is air in the fuel system, venting the

required after refilling.

Note: For details on how to bleed, refer to "Bleeding the Fuel System" in the "Essential Checks and Maintenance" section.

 Alarm Mode: Indicator light flashes and beeps intermittently on a 0.6 s e c o n d cycle, and the horn sounds once every 180 seconds.

Fuel level



2) Water temperature display



If you open the radiator cap while the engine is running or immediately after stopping the engine, coolant may splash out and scald you. After the engine has stopped and cooled sufficiently for at least 30 minutes, slowly turn the radiator cap to release residual pressure, then remove the cap.

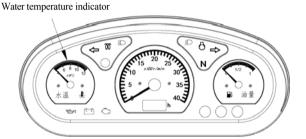
If the gauge points to the red area of the water temperature reading, the engine is overheated. Check as follows:

• Stop tractor operation;

- Allow the engine to idle for about 5 minutes;
- Stop the engine, allow it to cool for at least 30 minutes, and then perform the following inspection and maintenance:
  - a) Check that the amount of coolant in the tank and radiator is sufficient and that there are no leaks.
  - b) Check the radiator cap and radiator fins for dirt and clogging.
  - c) Check the fan and belt for looseness.

#### Important

• If the overflow pipe of the tank is leaking water vapour, check it according to the procedure above.



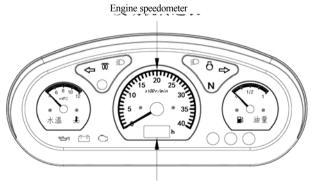
High water temperature alarm mode: the indicator light flashes and the horn sounds intermittently, with a cycle of 0.6 seconds, with the horn sounding 3 times every 20 seconds.

#### 3) Engine speedometer

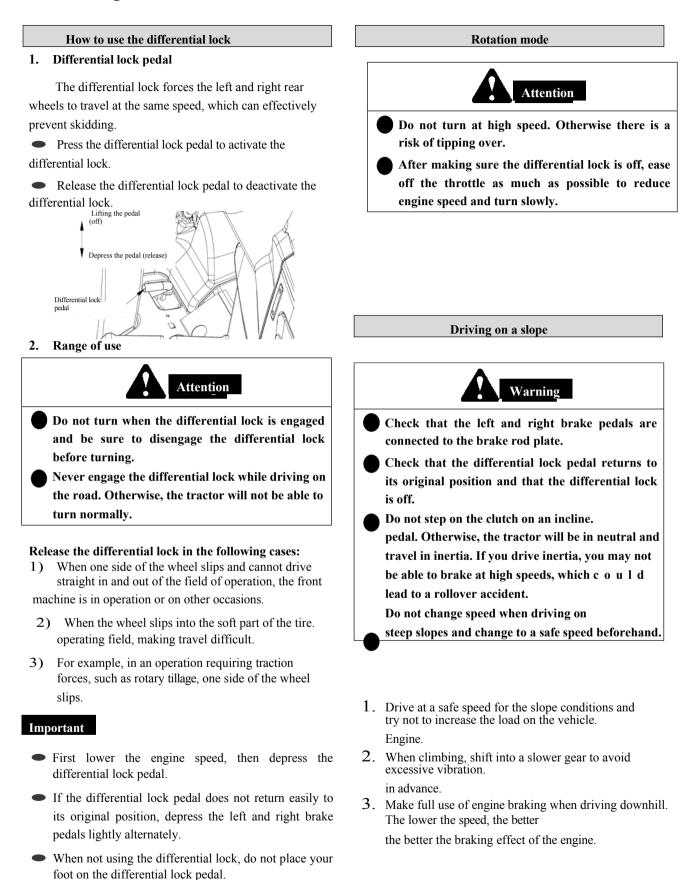
Displays the engine speed in revolutions per minute.

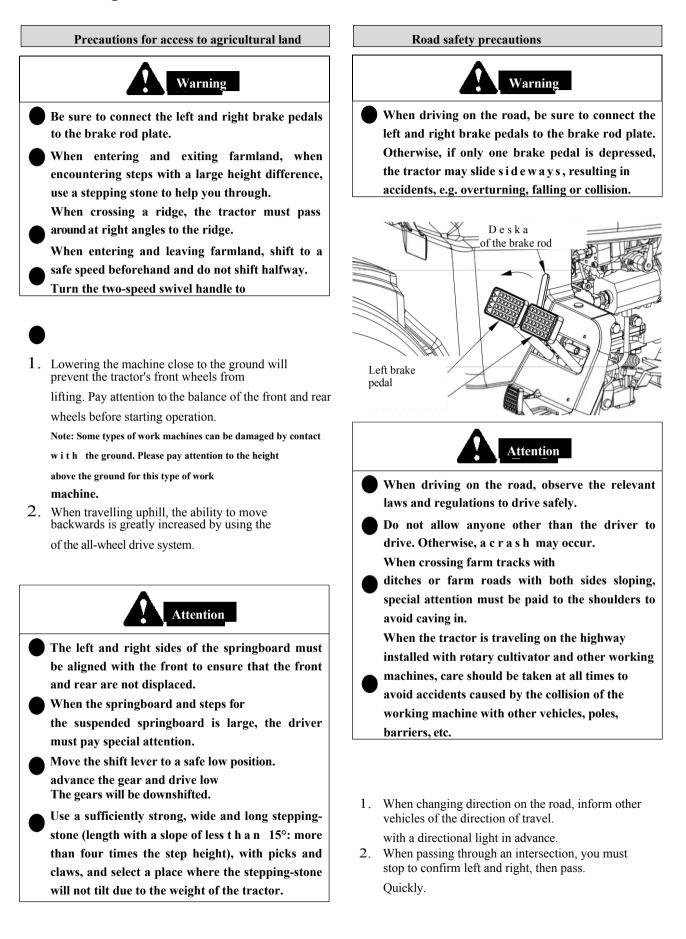
#### 4) Motor hour counter

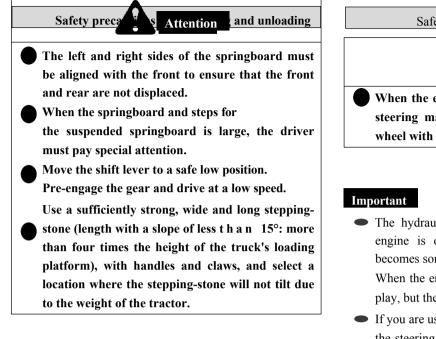
The motor hour meter has 6 digits, the first 5 digits are whole numbers, the last digit is decimal and the unit is the hour (h).



Motor hour counter







When loading or unloading the tractor onto or from the trolley, be sure to **[connect]** the left and right brake pedals and load in **[reverse**] mode and unload in **[forward]** mode. Safety precautions for power steering



When the engine is running, the hydraulic power steering makes it easier to operate the steering wheel with less force, so drive carefully.

• The hydraulic power steering only works when the engine is on. At low engine speeds, the steering becomes somewhat heavier.

When the engine stops, the steering wheel has a lot of play, but there is no problem with functionality.

- If you are using a front-mounted work machine. the steering wheel can be heavy if you operate it with the tractor engine stopped. In this case, operate the steering wheel while the tractor is moving at low speed.
- When the steering wheel turns down.

the operating sound of the safety valve (overpressure sound) is heard. Do not turn the steering wheel when the safety valve sounds (for a short time it does not matter). In addition, try to avoid turning the steering wheel continuously when the steering wheel is turned all t h e way down.

- Avoid turning the steering wheel unnecessarily. (turning the steering wheel without driving) as this accelerates the wear of the tyres and wheel hubs.
- In winter or in cold temperatures, please.
   Warm up fully before use.

#### Hydraulic mechanism

When the engine is running, the hydraulic mechanism is still functional.

#### 1. Using the hydraulic jack

Operate the hydraulic lifting rod and raise or lower the work machine using the hydraulic mechanism.

1) The hydraulic jack is set to [Oil pressure] (medium).

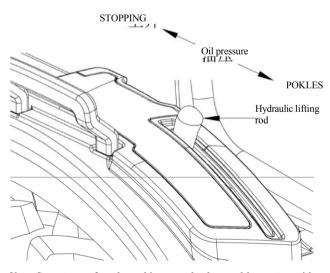
The work machine cannot move up and down.

**2)** The hydraulic lifting rod is set to the [Lift] position.

The work machine is lifted to the limit position and the hydraulic lifting rod automatically returns to the **[Oil pressure] (Center)** position. At any time during lifting, the hydraulic lifting rod can be pulled back to the **[Oil pressure] (Center)** position and lifting stops.

**3)** The hydraulic lifting rod is set to the [Lower] position.

The working machine drops to the limit position and the hydraulic lifting rod automatically returns to the **[Oil pressure] (Center)** position. At any time during lowering, the hydraulic lifting rod can be pulled back to the **[Oil pressure] (Center)** position and lowering stops.



Note: Some types of work machines may be damaged by contact with the ground. Use caution when operating the hydraulic lifting rod.

2. Adjusting the fall speed of the working machine

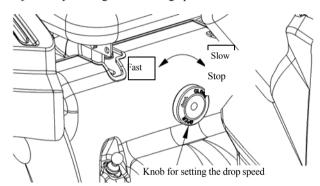


When checking the rotating machine:

- Secure (stop) the machine with the fall speed adjustment knob to prevent it from falling.
- After locking with the fall speed adjustment knob, place the hydraulic lifting rod in the **[Oil pressure]** position **(Center)** to ensure that the machine does not fall.

When locking, place the jack or block under the lock. Secure the working machine to prevent accidental falling of the working machine.

The lowering speed of the work machine can be adjusted by turning the lowering speed knob.



#### **1)** Turn in the [fast] direction:

The flow through the hydraulic circuit is increased and the fall speed of the working machine is accelerated.

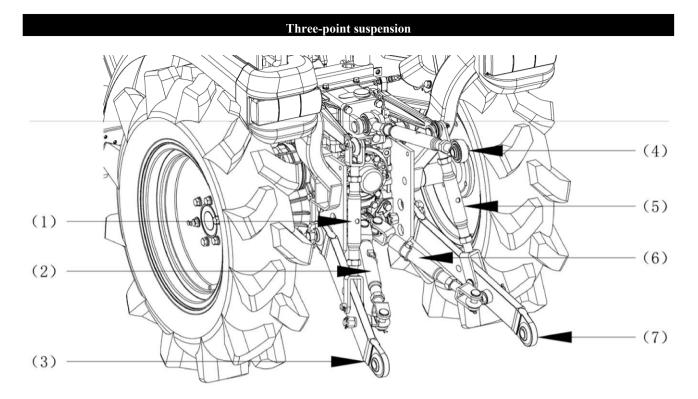
#### 2) Rotate in the [slow] direction:

The flow through the hydraulic circuit will decrease and the falling speed of the working machine will slow down.

#### **3)** Turn gently towards the end in the [slow] direction.

The hydraulic circuit is closed and the oil pressure is blocked (stopped). The oil pressure can be blocked by turning slightly. Please do not turn by force.

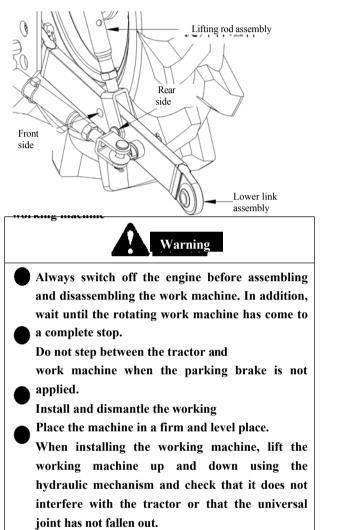
Note: A suitable drop speed for rotary working machines is 2 to 3 seconds from lifting to ground contact. If the fall speed is too high, the work machine may not operate smoothly.



- (1) Left lifting bar assembly
- (2) Left end bar assembly
- (3) Left lower link assembly
- (4) Upper control arm assembly
- (5) Right lifting rod assembly
- (6) Right end rod assembly
- (7) Right lower link assembly

### 1. Preparation before installation

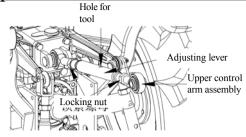
Front or rear mounting holes can be selected for the connection between the lift arm assembly and the lower arm assembly. Select the appropriate mounting holes according to the working machine (same for left and right side).



#### 1) Upper arm adjustment

Adjust the tilt (up and down) of the working machine by turning the **adjustment rod** as follows:

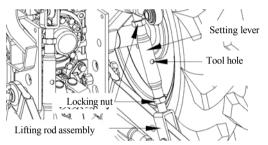
- Loosen the two lock nuts with a spanner;
- Insert the screwdriver into the **tool hole** and then turn clockwise to the appropriate position;
- Tighten the two locknuts with the wrench.



2) Adjust the lifting rod assembly (same for left and right side)

Adjust the inclination (left and right) of the working machine by turning the **adjustment rod** as follows:

- Loosen the two lock nuts with a wrench;
- Insert the screwdriver into the tool hole and then turn clockwise to the appropriate position;
- Tighten the two locknuts with the wrench.



**3)** Adjusting the end bar assembly (same for left and right side)

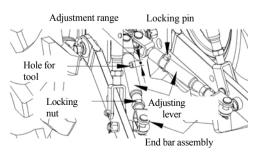
Adjust and limit the side roll of the working machine by turning the **adjustment rod** as follows:

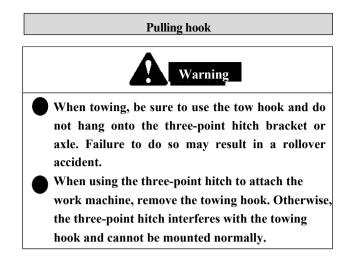
• Loosen the lock nuts with a wrench and remove them.

Remove the locking pin by removing the nut and removing the locking pin;

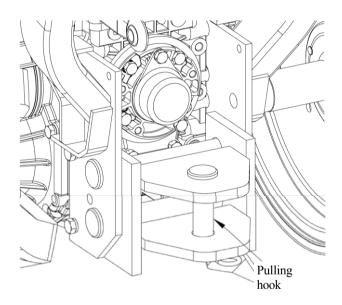
- Insert the screwdriver into the tool hole and then turn the clockwise/counterclockwise to the appropriate position (the adjustment range is shown in the illustration);
- Tighten the lock nuts with a wrench and reinstall.

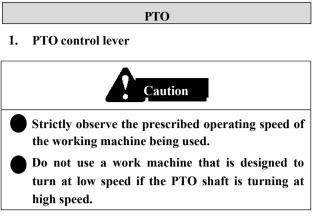
#### locking pin.



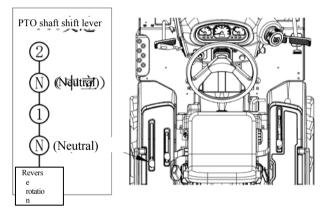


The traction function only applies to the traction equipment for this product. When pulling other objects, consult your dealer first.





The PTO speed can be switched to two forward rotation stages and one reverse rotation stage. When shifting gears, be sure to depress the clutch pedal before shifting.



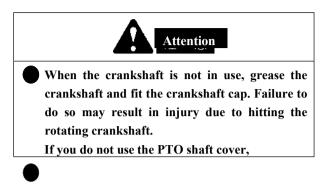
Safety precautions when using the PTO "backwards":

- 1) Applicable working machine
- Only rotating work machines specified by the manufacturer are permitted. The use of rotary machine tools other than those specified by the manufacturer is prohibited.

The manufacturer may cause machine failure.

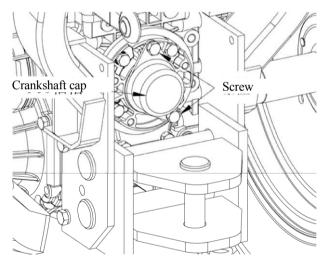
- 2) Applicable condition
- Rotary tillage is carried out in soft fields.
   Note: If rotary tillage is carried out at an engine speed of approximately 1500 rpm, mud spraying can be effectively reduced.
- Unwrap the straw from the rotary blade.
- 3) Unusable condition
- Agricultural operations are carried out backwards.
- Rotary tillage is carried out in fields with large amounts of gravel.

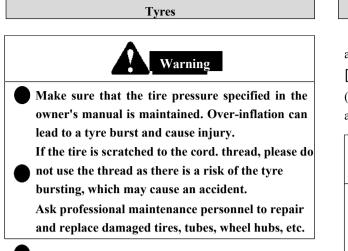
- The rotary blade of the working machine is connected in reverse for agricultural operations.
- 2. Crankshaft cap



### Crankshaft cover installation method:

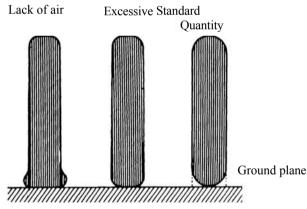
Place the crankshaft cover on the bare crankshaft and secure it with two screws.





## 1. Tyre pressure

Check the correct air pressure in the front and rear wheels. The criteria for judging by appearance are shown in the following figure:



2. Standard air pressure

	Specifications	Air pressure (kPa)
Front wheel	5-12	150
Rear wheel	8-16	180

#### Wheel track adjustment

The front and rear wheel track cannot be adjusted after the tractor leaves the factory, but the user can install [front and rear countershafts] as required by the dealer (purchased separately). In this case, the front and rear axles can be adjusted in five stages.

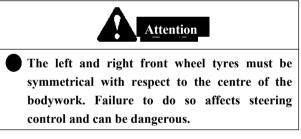


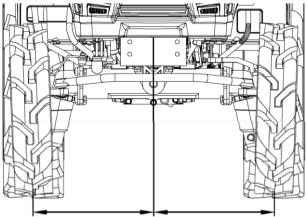
In the case of traction operation, slope operation, front implement operation, etc., to keep the left and right sides of the tractor stable and well balanced, widen the wheel track within the wheel-free range.

### 1. Preparation before adjustment

- 1) Park the tractor on a level surface.
- 2) If a working machine is installed, remove it.
- 3) Prepare a jack to lift the body and wheel stops. block the tyres.

## 2. Method of adjusting the front wheel track



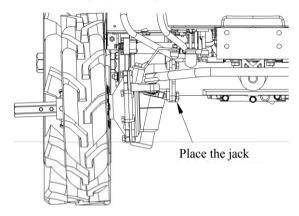


Tyres on both sides are symmetrical to the centre of the bodywork.

## Tyres and weight

- 1) Switch off the engine and apply the parking brake.
- 2) To avoid danger, place stops in front of the wheels. and behind the left and right rear wheels.
- Place the jack under the flange on one side of the front axle housing and lift the front wheel on one side.

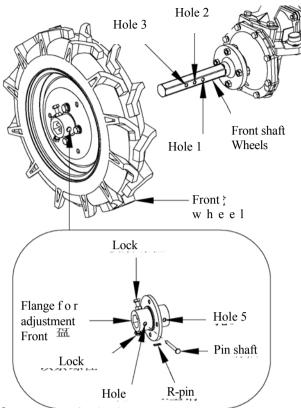
until it is slightly off the ground.



- 4) Pull out the pin shaft on the front wheel alignment flange (pull out the R-shaped pin). on the pin shaft). Loosen the 2 locking bolts and push/pull the tire into the desired mounting hole in the wheel track. There are 3 pin holes on the front wheel countershaft and 2 pin holes on the front wheel alignment flange, which can be used in combination to adjust the wheel track in 5 steps.
- 5) After setting the wheel track in place, insert the pin shaft into the front wheel alignment flange, then insert an R-shaped pin into the pin shaft to secure it. Pre-tighten both locking bolts and lower the jack to ground the tire.
- 6) Adjust the wheel track of the opposite front wheel in the same way.
- After grounding the left and right front wheels, make sure all 4 locking bolts are tightened. Tightening torque: 120 ~ 140 N.m

Unit: mr	n	Front wheel counterweight						
Unit. Ini	11	Hole 1	Hole 2	Hole 3				
Front wheel	Hole 4	960	1020	1080				
adjustment Flange	Hole 5	1080	1140	1200				



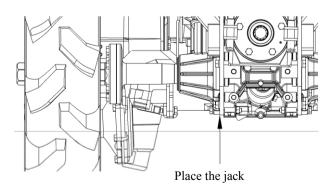


3. Method of adjusting the rear wheel track

## Important

- Like the front wheels, the rear tyres must be positioned symmetrically around the centre of the body.
- 1) Switch off the engine and apply the parking brake.
- To avoid danger, place wheel stops in front of the wheels. and behind the left and right front wheels.
- Place the jack under the joint between the rear axle gearbox and the rear axle housing on one s t r a n n,

and lift the rear wheel on one side until it is slightly off the ground.



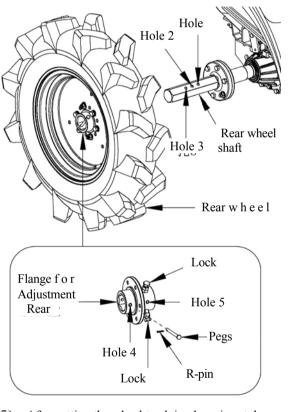
## Tyres and weight

4) Pull out the pin shaft on the rear wheel alignment flange (pull out the R-shaped pin).on the pin shaft) Lesson the 2 leaking holts and

on the pin shaft). Loosen the 2 locking bolts and push/pull the tire into the desired mounting hole in the wheel track. There are 3 pin holes on the rear wheel counter shaft and 2 pin holes on the rear wheel alignment flange, which can be used in combination to adjust the wheel track in 5 steps.

Unit: mr	n	Rear wheel shaft					
Unit. Ini	Hole 1	Hole 2	Hole 3				
Rear wheel	Hole 4	960	1020	1080			
adjustment Flange	Hole 5	1080	1140	1200			

Rear wheel track adjustment

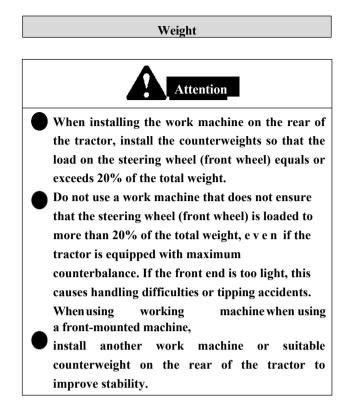


- 5) After setting the wheel track in place, insert the pin shaft into the rear wheel alignment flange, then insert an R-shaped pin into the pin shaft to lock it in place. Pre-tighten both locking bolts and lower the jack to ground the tire.
- 6) Adjust the wheel track of the opposite rear wheel in the same way.
- 7) When the left and right rear wheels are grounded,

make sure that all 4 **locking bolts** are tightened. Tightening torque: 120 ~ 140 N.m

### Important

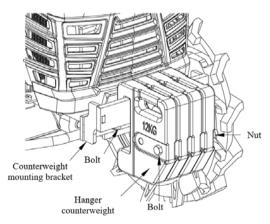
 Before starting operation, be sure to check that the locking bolts on the front and rear wheels are not loose.



Counterweights can be installed in the following three ways. For the number of weights required, refer to the operating manual of the desired work machine or consult your dealer.

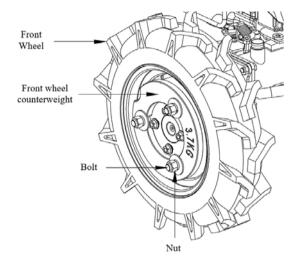
#### 1. Hanging counterweight (standard)

- Attach **the counterweight mounting bracket** to the main frame with **bolts** and **nuts**.
- Attach the hanging counterweight to the counterweight mounting bracket and secure all counterweights with bolts and nuts. The weight of each counterweight is 12 kg and a maximum of 7 can be installed.



#### 2. Front wheel counterweight

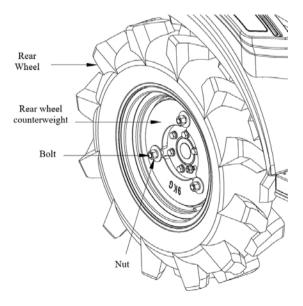
Attach the front wheel counterweight to the front wheel hub using the bolts and nuts. The weight of each counterweight is 3.7 kg and one piece can be fitted to both left and right front wheels, it is not factory installed and can be purchased from the dealer if required.



#### 3. Rear wheel counterweights

Attach the rear wheel counterweights to the rear wheel hub using the bolts and nuts. The weight of each counterweight is 9 kg and one piece can

can be mounted on the left and right **rear** wheel. It is not factory installed and c a n be purchased from the dealer if required.



#### Preparation before servicing and maintenance

- 1. Do not operate the tractor beside the road and drive it to a level and open place.
- 2. Depress the clutch pedal and the parking brake pedal and lower the machine to the ground using the hydraulic brake.
- 3. Place the gear lever in neutral, pull back the parking handle and set it to **[ON]**, then remove your foot from the clutch and brake pedals.
- 4. Switch off the engine.
- Remove the key and make sure it is secure before starting operation. Failure to do so may result in injury.



If waste is arbitrarily discarded or burned, it will cause environmental pollution and will be punished according to the law. Dispose of the waste as follows:

When waste liquid is discharged from the tractor,

please collect in a container. Do not pour the waste liquid on the ground, into rivers, lakes and oceans.

When disposing of or disposing of waste oil, fuel,

cooling water (antifreeze), refrigerant, solvent, filter, battery, rubber and other harmful substances, contact your dealer or industrial waste disposal company and dispose of them according to the relevant regulations.

#### Safety precautions for washing the tractor

Use a high-pressure cleaning gun to clean the tractor, but improper use of a high-pressure cleaning gun may result in injury, damage or failure of the tractor. Therefore, follow the instructions and labels of the pressure washer for proper use.



To avoid damaging the machine, set the nozzle of the high pressure cleaning gun to the spray mode and place it within 2 metres when washing the tractor. If the tractor is washed in the scatter mode or in close proximity to the high pressure cleaning gun, the following hazards may result:

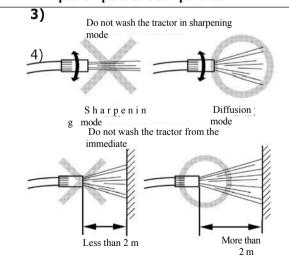
Fire may result from damage or

damage or breakage of the electrical conductor sheath.

Hydraulic oil under high pressure may spurt and cause injury due to damage to the hydraulic hose. Breakage, damage, or malfunction can result in the following situations:

Stickers and labels peel off;

- Electronic component pages are soaked, causing the electrical system to 1) malfunction;
- -/ mairunction;
- 2) Rubber parts such as tires and oil seals are damaged; Paint and electroplated films peel off parts and components.



## Parts list for regular inspection

## Important

 $\star$  Indicates that this item must be performed after 50 hours of break-in.

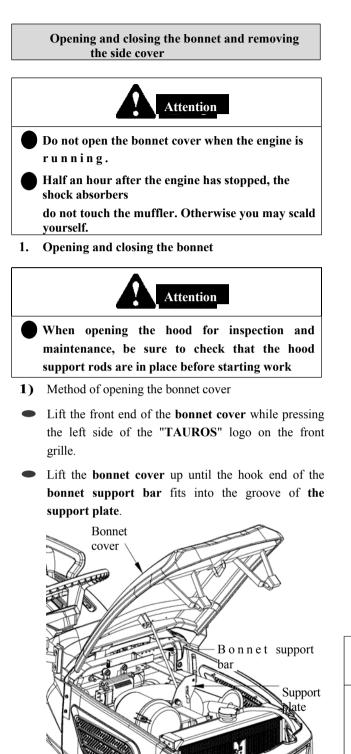
SN	Ite	em	Task					L	ength o	f operat	tion (un	it: hour)					Reference
SIN	10		1 dSK	50	100	150	200	250	300	350	400	450	500	550	600	Later	page
1	Engin	Annual running time more than 100 hours	Replace site	*	V		V		V		V		V		V	Every 100	56
	e oil	Annual service time up to 100 hours	Replace pages	*												Every year	56
2	Oi	l filter	Replace pages	*			V				V				V	Every 200	59
3	Hydraul	ic oil filter	Replace pages	*							V				V	Every 200	60
4	Hydr gearl	aulic oil in	Replace pages	*					$\checkmark$						$\checkmark$	Every 300	61
5		e housing gear oil	Replace pages						V						V	Every 300	62
6	Lı	ubricant	Supplemen t		V	V		V	V		V	V	V	V	V	Every 50	54
7	Syster E sy	n ngine starting /stem	See site.	$\checkmark$	V	V	V	V	V	V	V	V	V	V	V	Every 50	54
8	device for	ed switching or two-speed station	See see site .	V	V	V	V	V	V	V	V	V	V	V	V	Every 50	54
9	Bolts an fo tyr	r fixing	See see site .	V	V	V	V	V	V	V	1	V	V	V	V	Every 50	55
10	Clutch	housing	Wate r drain age	V	V	V	V	V	V	V	V	V	V	V	V	Every 50	55
11		hose and ting strap	See site.	$\checkmark$	V	V	V	V	V		V	V	V	V	V	Every 50	55
	moun		Replace pages													Every 2 years	64
			Overview		V		V		V		V		V		V	Every 100	57
12	Air clear	ner element	Replace pages													Every year or clean 6 times	63
13	Ва	atteries	See		V		$\checkmark$		$\checkmark$	L	$\checkmark$				$\checkmark$	Every 100	57

La	<u>isy itaciolis</u>		<u>mg</u>	an	1 111	<u>am</u>						
		pages .										
14	Fan belt	Regulate		V		$\checkmark$	V	V		$\checkmark$	Every 100	58
15	Clutch pedal	Regulate	*	V		$\checkmark$	V	V	$\checkmark$	V	Every 100	58

CNI	Thomas	Task					D	uration	of opera	ation (u	nit: hour	)				Reference
SN	Item	Task	50	100	150	200	250	300	350	400	450	500	550	600	Later	page
16	Left and right brake pedal	Regulate		$\checkmark$		$\checkmark$				$\checkmark$		$\checkmark$		$\checkmark$	Every 100	58
17	Fuel injection pipe	See site.				$\checkmark$				$\checkmark$				$\checkmark$	Every 200	-
18	Radiator hose and fixing strap	See pages				V				1				V	Every 200	60
		Replace pages													Every 2 years	64
19	Air intake hose and fixing strap	See see pages.				V				V				V	Every 200	60
		Replace pages													Every 2 years	64
20	Steering rod	See Check out the site.				$\checkmark$				V				V	Every 200	61
21	Fuel filter insert	Replace pages								V					Every 400	62
22	Engine valve clearances	Regulate													Every 800	63
23	Injector opening pressure	See site.													Every 1500	-
24	Cooling water	Replace pages													Every 2 years	63
25	Cooler	Rinsing													Every 2 years	64
26	Venting fuel system	-													As required	65
27	Fuse	Replace pages													As required	65
28	Luminaires	Replace pages													As required	65

## Fuel/oil and water filling schedule

	Сарас	eity (L)				
Location	TA254-6A	/TA254-9A	Fuel/oil and water			
Fuel tank	13	3.5	Diesel			
Radiator	4	.6	Clean water (if antifreeze is added, reduce the			
Auxiliary water tank	0	.6	appropriate amount of clean water).			
Engine	2.6	3.8	Oil (recommended 10W-30)			
Transmission	11	1.5	- Gear oil			
Front axle housing gear oil	3	.0	Gearon			
Clutch pedal						
Left and right brake pedal	Small	amount	Lithium-based lubricant			
Brake pedal shaft						
Ball joint	Sque	eegee				



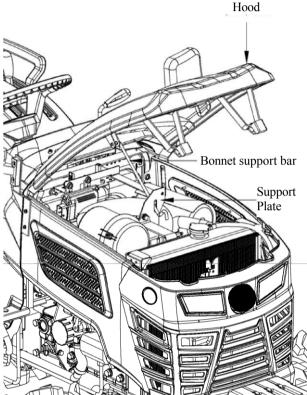
Right

Left 🖌

Logo

"TAUROS"

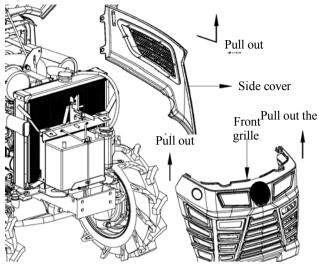
- 2) Method of closing the bonnet
- Hold the **bonnet cover** with your left hand and lift the **bonnet support bar** slightly with your right hand so that its hooked end passes through the slot in the bonnet cover. Unlock the **support plate**.
- Slowly remove the cowling and it will automatically lock after landing.
- Lift the front of **the bonnet** slightly and check that it is secure.



2. Removing and fitting the front grille and side cover

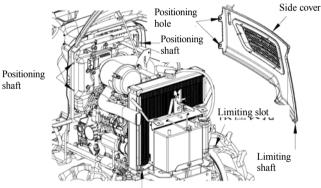
## Attention

- Remove and assemble the front grille and side cover with the bonnet open.
- No tools are required to remove and install the front grille and side covers.
- 1) Method of removing the front grille and side cover
- Grasp both sides of the upper part of the front grille and gently pull it out.
- Pull the side cover up a little and then gently pull it up to remove it (same on both sides).



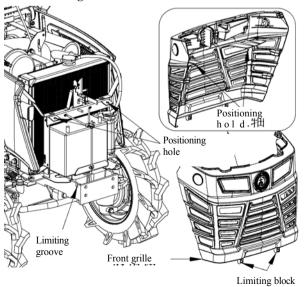
2) How to install the front grille and side cover

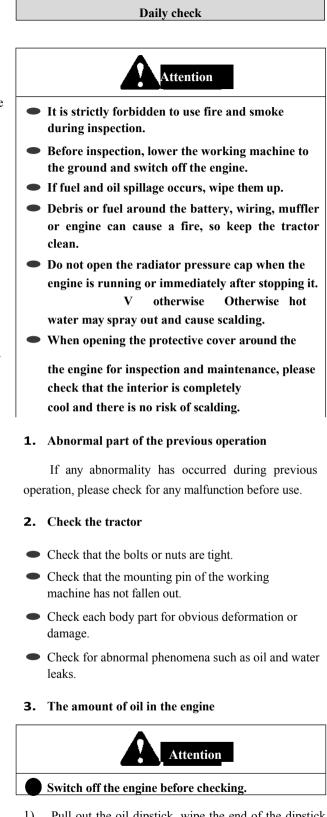
• After inserting the side cover limiting shaft into the limiting slot, a positioning hole (the same for both sides) is fitted on the positioning shaft.



Limiting slot

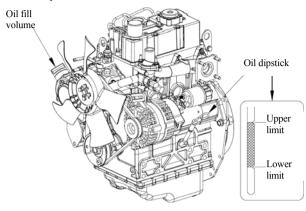
 After the front grille positioning shaft is inserted into the positioning slot, the limiting block is inserted into the limiting slot.





 Pull out the oil dipstick, wipe the end of the dipstick, insert it and pull it out again. Check that the oil is [between the lower and upper limits].

 If the oil quantity is lower than [lower limit], add oil. However, the oil quantity must not exceed [upper limit].



## Important

- Park the tractor in a horizontal position when checking, the correct amount of oil cannot be displayed when the tractor is tilted.
- Check the oil quantity before starting the engine. after starting or stopping the engine for more than 10 minutes. Otherwise, oil will remain in all parts of the engine and the actual amount of oil cannot be measured.

### 4. The amount of oil in the gearbox

Oil dipstick

Upper

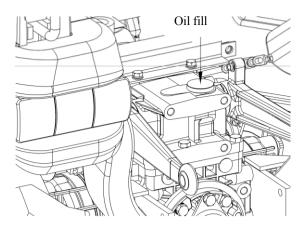
limit

Lowe r limit



Turn off the engine before checking. If the working machine is installed, lower it to the ground.

- 1) Pull out the oil dipstick, wipe the end of the dipstick, insert it and pull it out again. Check that the hydraulic oil is [between the lower and upper limits].
- If the oil quantity is lower than [lower limit], add hydraulic oil. However, the oil quantity must not exceed [upper limit].



5. Cooling water volume

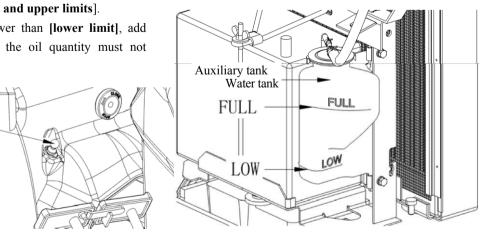


If you open the radiator cap while the engine is running or immediately after stopping the engine, hot water may spray out and cause scalding. Stop the engine and wait at least 30 minutes for it to cool down, then turn the radiator cap slowly to release any residual pressure, then remove the cap.

The radiator is equipped with an additional water tank, and when the cooling water in the radiator is less, the additional water tank can automatically refill it.

It is normal for the cooling water volume in the auxiliary water tank to be between "FULL" and "LOW". If the cooling water volume drops below the "LOW" value, refill to the "FULL" level, but not above the "FULL" value.

Note: Do not open the radiator cap, only to check and change the cooling water.



6. Check and replace the wiring harness and battery cable



Loose cable clamps and connectors or damaged wiring will damage the performance of electrical components and lead to short circuits or leaks and even fire, which is very dangerous. Replace or repair damaged wires as soon as possible.

If the fuse is damaged, do not replace it.

• iron wire, but replace it with the same type of fuse. If the replacement fuse is about to blow, have it inspected and repaired by professional maintenance personnel.

The wiring of this machine has been fully

in the design of waterproofing and other factors, so please do not change the wiring arrangement at will.

Straw, garbage and fuel around the batteries and electrical wiring may cause fire, so please clean up the area around the batteries and electrical wiring every day before operation.

- 1) If the wire sheath is broken, check for damage.
- 2) If the harness comes off the buckle, put it back on. on the designated buckle.
- 3) Check for loose clamp connections and connectors are loose.
- 4) Check that all switches and devices are

working operate normally and reliably.

#### 7. Check for water and deposits in the fuel filter

Water and debris from the fuel are deposited in the fuel filter bowl. To check, turn the filter bowl counterclockwise to remove it, then clean the inside with diesel fuel. When cleaning is complete, turn the bowl back into the filter clockwise.

### Important

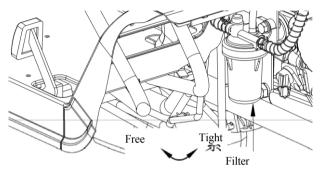
• Take care not to get dust or dirt on the tyre during installation.

After removing the bowl for cleaning and retightening, be sure to bleed the air. Note: See the "Venting the Fuel System" section in the "Venting

the Fuel System" chapter.

"Essential Inspection and Maintenance" f o r details on how to vent.

Note: Fuel leakage from the tank will stop automatically when the bowl is removed. However, if the tank is nearly full, fuel will flow from the return line back into the filter, so clean the fuel filter when the fuel is less than half full.



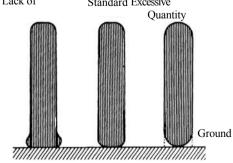
**8.** Tyre pressure, wear and damage



- Make sure that the tire pressure specified in the operating instructions is maintained. Overinflation can lead to tire blowouts and cause injury.
- If the tire is scratched to the cord. thread, do not use the tire as there is a risk of a blowout which may cause an accident.
- Ask professional maintenance personnel to repair and replace damaged tires, tubes, wheel hubs, etc.

### 1) Air pressure in the tyre

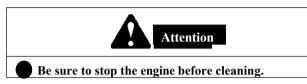
Check the correct air pressure in the front and rear wheels. The criteria for judging by appearance are shown in the  $fc_{Lack of}^{11}$  Standard Excessive



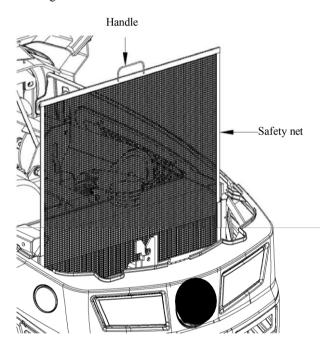
## 2) Standard air pressure

	Specifications	Pressure Air (kPa)
Front wheel	5-12	150
Rear wheel	8-16	180

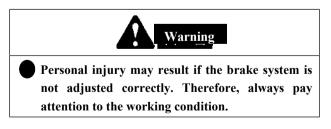
## **9.** Cleaning the safety net



When working in rice paddies or at night, the protective net may stick to weeds or insects and cause blockages. Clean it in time.

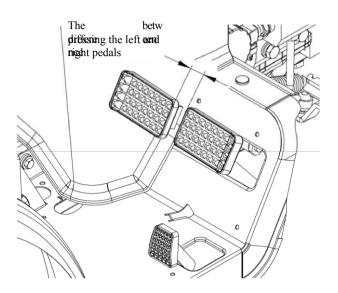


**10.** Check the clearance of the left and right brake pedals.

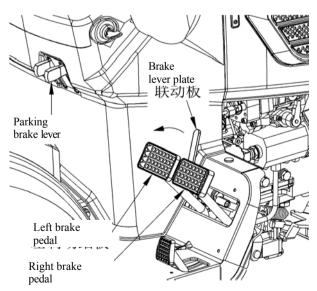


Depress the pedal, check that the clearance is within 30 ~ 40 mm, and check that the clearance is within 30 ~ 40 mm. The difference between the left and right brake pedal is within 5 mm.

For the method of adjusting the brake pedals, refer to "Checking and adjusting the brake pedals" in the section "Checking and maintaining every 100 hours".



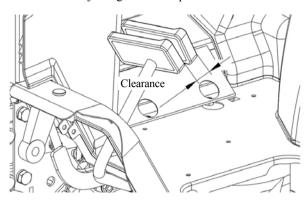
- **11.** Checking the operation of the parking brake
- Connect the left and right brake pedals to the brake rod plate and depress them. Pull the parking handle down to the [ON] position and release the foot to engage the parking brake.
- Depress the **brake pedal**, the **parking handle** will automatically return up and the parking brake will turn off.



### 12. Check clutch pedal clearance

Lower the pedal and check that the clearance is within  $15 \sim 25$  mm.

Refer to "Checking and adjusting the clutch pedal" in the "Checking and maintaining every 100 hours" section for the method of adjusting the clutch pedal.

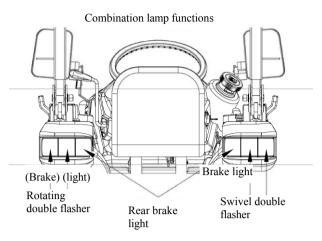


## Important

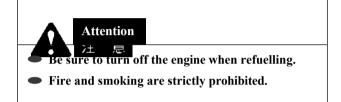
• If the clutch pedal is not properly adjusted, the clutch may slip because it cannot be disengaged, which can lead to damage to the clutch.

### 13. Checking instruments and indicators

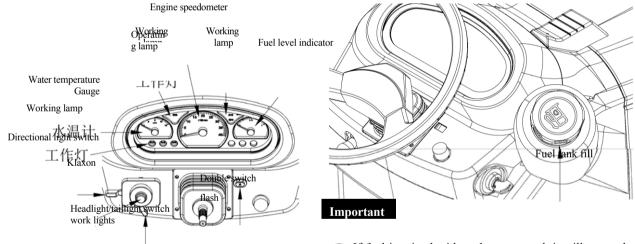
Turn the key to the "Power" position and check the following instruments and indicators for proper operation.



## 14. Refuelling



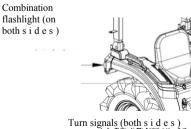
If the temperature is too low, the fuel flowability is reduced and the engine becomes difficult to start.



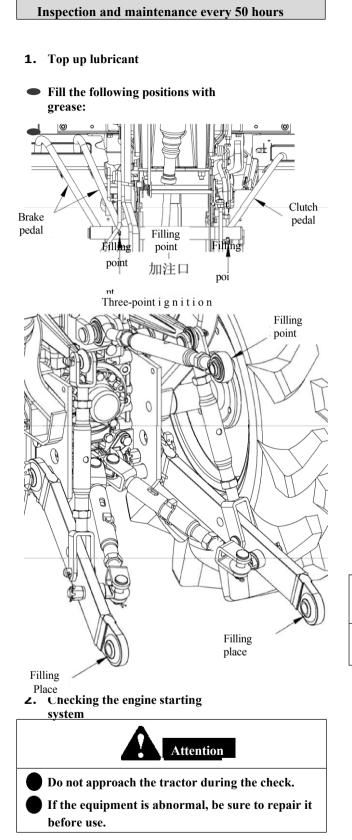
Headlamp

• If fuel is mixed with garbage or sand, it will cause the injection pump to malfunction. Do not remove the filter screen when refuelling.

- Check that the air hole on the fuel tank cap is not blocked by mud or rubbish.
- Check that the fuel filler cap is tightened.



转向灯(两侧)

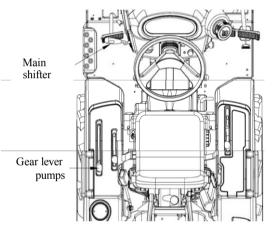


## Check procedure:

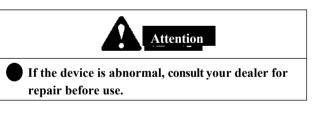
- Sit in the driver's seat and place the main gear lever and the shift lever of the shaft to the [Neutral] (N) position.
- Stop the engine and make sure the electronic throttle knob is turned counterclockwise to the [Min] position.
- Momentarily turn the key to the [Start] position.
   At this point, it is normal if the engine is started.
- Switch off the engine, move the main gear lever or the PTO shifter to a position other than [Neutral] and turn the key momentarily to

position **[Start].** At this point, it is normal that The engine cannot be started.

5) Consult your dealer for any problems.



**3.** Checking the high-speed switching device for twospeed rotation



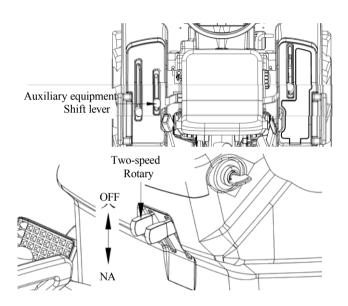
## Inspection procedure:

- Sit in the driver's seat, set the front wheels in a straight line, and set the shift lever of the auxiliary gears to [Low] or [Medium]. Pull the two-speed shift lever to the [ON] position.
- Move the shift lever of the auxiliary gear lever to [High]. At this time, the high speed shutdown device is working and it is normal for the two-speed cornering function to be

is disabled when turning.

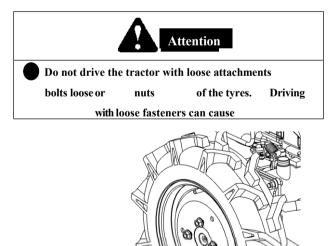
- 3) Set the front wheels to the straight direction of travel, switch the auxiliary gear shift lever to [Low], and the high speed disable device is automatically reset. In this state, turn and it is normal for the two-speed function to resume.
- Reduce the engine speed in a level and quiet place to make the turn after confirming safety.

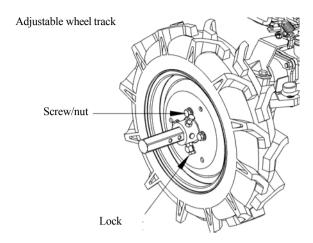
Note: The TA254-6A auxiliary shifter has two gears: [Low] and [High]. The TA254-9A auxiliary shifter has three gears: [Low], [Medium], and [High].



4. Check tyre fixing bolts and nuts

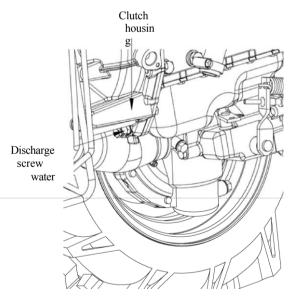
Bolt/nut



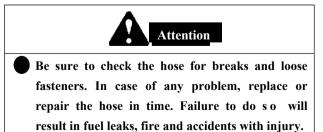


#### 5. Water drain from clutch housing

When working in the rice field, washing the tractor, rain, etc., a large amount of water is sprayed onto the clutch housing. Therefore, it is necessary to remove the drain screw at the bottom of the clutch housing after every 50 hours of operation and check for water ingress into the clutch housing. If water does enter the housing, allow the water to drain completely through the drain screw hole and keep the inside of the housing reasonably dry.



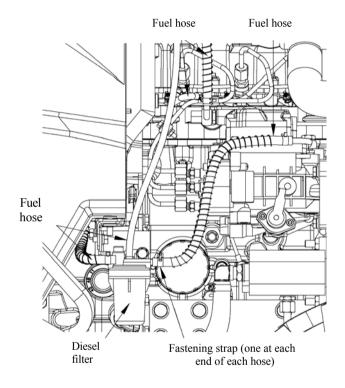
6. Checking the fuel hose



Rubber products such as fuel hoses are consumables and deteriorate even when not in use. Replace them with new ones every 2 years or if damaged, together with the fixing strip.

- Check the fuel hose frequently damaged and whether the fastening strap is loose.
- When replacing the fuel hose, venting is required. See the section "Venting the fuel system" in the "Necessary changes" section.

**Inspection and maintenance'' for** details on venting method.

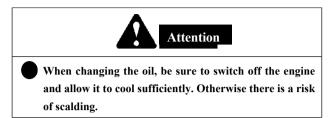


## Important

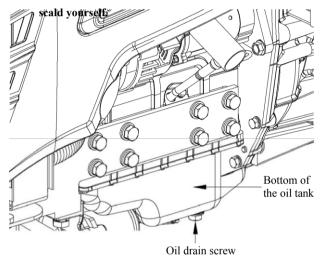
 When replacing the fuel hose, take care that no foreign matter gets into the hose and fuel pump. If foreign bodies get inside, they will cause the fuel pump to malfunction.

#### Inspection and maintenance every 100 hours

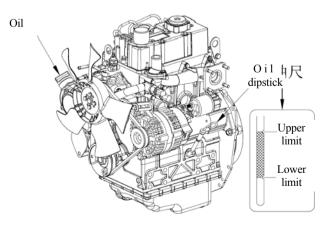
1. Engine oil change



 Unscrew the drain screw at the bottom of the oil tank with a spanner and drain the oil.
 Note: Hot oil is easier to drain, but be careful not to



 Top up the engine oil from the filler neck to the prescribed amount, taking care not to spill the oil.
 Note: Remove dipstick for ease of refilling oil.



## Important

- When using engine oil from different manufacturers or engine oil with different viscosity, drain all original engine oil before replacing it with another. New. Please do not mix them together.
- 10W-30 oil is recommended.
   Note: Always use 10W-30 oil in winter.
- When checking, place the tractor in a horizontal position. When tilted, the correct amount of oil cannot be displayed.
- Check the oil quantity before starting the engine or after stopping the engine for more than 10 minutes. Otherwise, the oil will remain in the

all parts of the engine and the actual amount of oil cannot be measured.

### 2. Checking and maintaining the battery

#### 1) Installing and removing the battery

- When removing the battery, first remove the battery pole wire (-) and then remove the battery pole wire (+).
- When installing, the pole wire (+) must be installed first. Otherwise, a short circuit will occur when the tool touches the (+) pole.

Note: Connect the battery poles (+) and (-) according to the original condition and tighten them so that they do not touch each other.

- Be sure to use the special battery (55B24L).
   "SEEYES" when replacing the new battery.
- 2) Charging method



Do not smoke or be near an open flame while charging the battery.

- Do not carry out rapid charging as this may damage electrical components and wiring.
- When connecting the battery cable, make sure that the (+) and (-) terminals are connected correctly. Improper connections will damage the battery and electrical system will fail.

 When charging, the (+) pole of the battery is connected to the (+) pole of the charger, and the (-) pole of the battery is connected to the (-) pole of the charger. and use the normal charging method. Do not make mistakes when connecting the wires.

#### **3.** Cleaning the air cleaner element

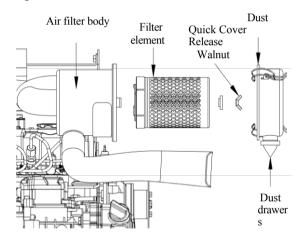
### 1) Cleaning the filter element

In case of dry dust, blow it off carefully with compressed air to avoid damaging the filter element.

Note: The air pressure must not exceed 205 kPa and there must be sufficient distance between the nozzle and the filter element.

### 2) Replacing the filter element

Replace the filter element every year of use or every 6 cleanings.



#### Important

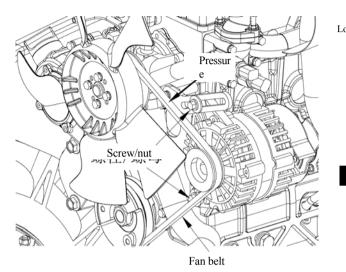
- Do not open the dust cover or touch the filter element unless necessary, except for cleaning or replacement.
- Do not use diesel fuel to clean the filter element as it is a dry filter element.
- When cleaning, do not hammer the filter element to avoid deforming it. Deformation of the filter element will cause dust to enter the engine and cause the engine to become damaged. If the filter element is deformed, replace it immediately.
- Install the dust cover so that the dust outlet faces the dust outlet. Down.
- 3) Cleaning the dust outlet

Squeeze the rubber on the dust outlet to remove large pieces of dirt.

#### 4. Check and adjust the fan belt

#### 1) Inspection method

Press the center of the belt with your fingertips with a force of about 98 N to bend the belt by about 7 mm.



#### 2) Adjustment method

- Loosen the bolts and nuts to install the generator and move the generator for adjustment.
- After adjustment, screw back the bolts and nuts and tighten them.

## Important

- Insufficient belt tension will cause the engine to overheat and the generator to underperform.
- If the belt is cracked or peeled off, replace it with a new one.

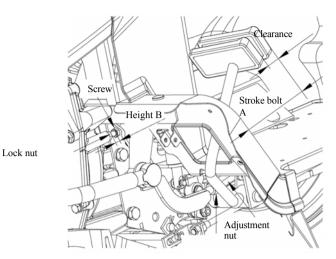
#### 5. Check and adjust the clutch pedal

1) Pedal play

The correct clutch pedal clearance is  $15 \sim 25$  mm.

- 2) Adjustment method
- Loosen the lock nut I and turn the adjustment nut to adjust the pedal clearance.
- Check the stroke [A] when the pedal is depressed.
   Loosen lock nut II and adjust the height [B] of the screw so that the stroke distance [A] is 105 mm.

After adjustment, tighten the lock nuts I and II.



#### Important

- If the clutch pedal is not adjusted correctly, the clutch may slip because it cannot be disengaged, causing damage to the clutch.
- 6. Checking and adjusting the left and right brake pedals



Shut off the engine before checking and adjusting.

- Personal injury may result if the brake system is not adjusted properly. Therefore, always pay attention to the working condition.
- When adjusting, make sure to control the difference between the left and right pedal travel within 5 mm. If the difference is too large, it causes one-way braking which c a n lead to tip-over accidents.

#### 1) Pedal clearance

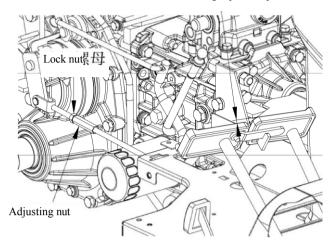
The correct brake pedal clearance is  $30 \sim 40$  mm.

## 2) Adjustment method

- Release the parking brake.
- Loosen the lock nut, turn the adjustment nut and adjust the pedal clearance so that the difference between the left and right pedal travel is within 5 mm.

- After adjustment, tighten the lock nut.
- Check that the parking brake is working correctly.

Difference between left and right pedal depression



Inspection and maintenance every 200 hours

**1.** Change engine oil filter

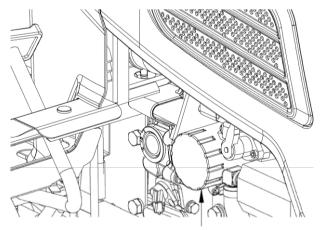


When replacing, first switch off the engine and allow it to cool down sufficiently. Otherwise there is a risk of scalding.

### Replacement method:

- 1) Use a filter wrench to remove the oil filter.
- Apply a thin layer of oil to the seal of the new filter, screw and hand tighten the new filter onto the engine.
   Note: Do not use a filter wrench when tightening.
- 3) Top up the engine oil to the prescribed amount.
- Start the engine and let it run for about 5 minutes. After confirming that the oil light is on normally and that the engine is not leaking oil, shut off the engine.
- After the engine has cooled down completely, check the oil quantity again using a dipstick.

oil gauge and continue adding oil if there is a shortage.



Oil filter for the engine

Note: The oil filter is a cartridge type. If the oil filter is clogged, the bypass valve is activated and the engine is lubricated with unfiltered oil. To prevent this, replace the oil filter with an original new one after the specified service period.

## 2. Check the injection line

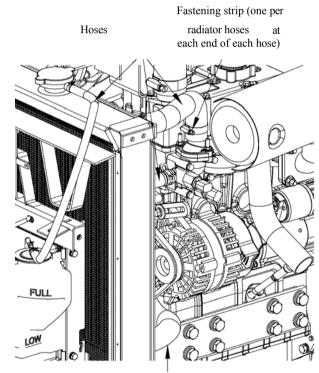
Check the fuel injection line for damage or leaks.

### 3. Check radiator hose

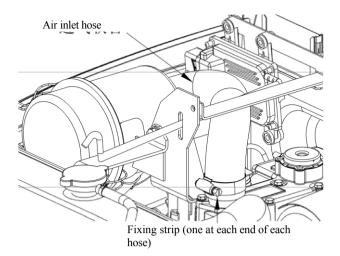


Check the radiator hose for damage or loose fastening strap. If there is any abnormality, replace and repair the radiator hose. Otherwise, scalding may occur due to leakage

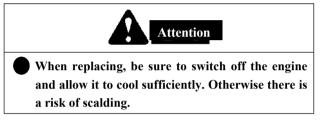
Rubber products such as radiator hoses are consumables and deteriorate even when not in use. Replace the hose with a new one every 2 years or if damaged, together with the fixing strip.



Radiator hoses



5. Replacing the hydraulic oil filter



### Replacement method:

- 1) Drain the hydraulic oil from the transmission.
- 2) Use a filter wrench to remove the hydraulic oil. filter.
- 3) Apply a thin layer to the seal of the new filter of hydraulic oil, screw and tighten the new filter onto the filter.

transfer by hand.

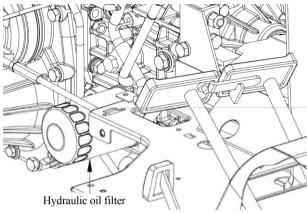
#### Note: Do not use a filter wrench when tightening.

- 4) Top up the hydraulic oil in the transmission to the prescribed amount.
- 5) Start the engine and allow it to idle.
- 6) Slowly push and pull the hydraulic lift rod until the hydraulic oil enters the hydraulic

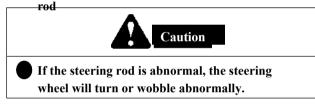
circuit and the hydraulic mechanism operates normally.

- 7) After the working machine can be lifted and started normally, adjust the hydraulic jack to the [Down] position and lower the work machine to the ground.
- 8) In this condition, let the engine run for about 2 minutes, and then turn off the engine.
- 9) After shutting off the engine for approximately 10 minutes, check the oil level in the gearbox by oil dipstick again. If it is insufficient, refill it.

Note: For details on draining and refilling the hydraulic oil in the transmission, see "Changing the Hydraulic Oil in the Transmission" in the "Inspection and Maintenance Every 300 Hours" section.



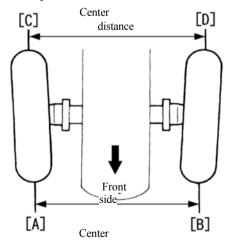
## 6. Checking the steering



#### Control method:

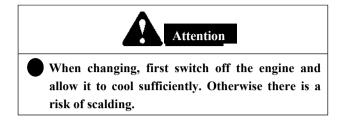
Measure the axial distance AB of the front wheel and the axial distance CD of the rear wheel a.

Check that CD-AB is  $0 \sim 20$  mm. If this range is exceeds this range, it means that a correction must be made. Contact your dealer.



Note: Check the steering rod end (ball joint) and tie rod for wear or deformation. Check the steering tie rod to front wheel connection under standard tire pressure. Check and maintain every 300 hours

1. Changing the hydraulic oil in the gearbox

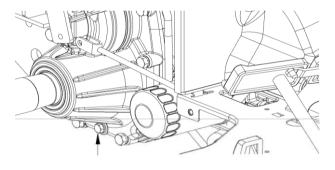


#### Replacement method:

 Pull out the oil plug at the oil filler of the jack a. Drain the hydraulic oil using the wrench from the the drain screw.

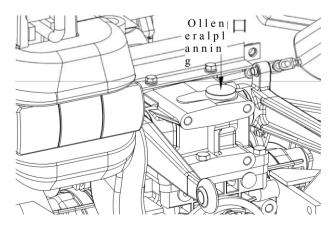
Note: In the event of a sudden u s e o f

the oil drain screw, hydraulic oil may suddenly flow out and splash onto the tire.



Oil drain screw (one on each side)

- 2) After draining the waste ole, screw back the drain screw and tighten it with a wrench.
- 3) Add the specified amount of hydraulic oil. through the oil fill of the hoist and then install the oil plug back into the oil fill.

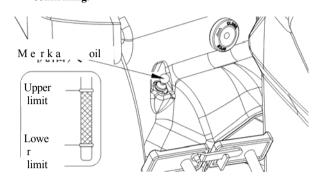


4) Start the engine and let it run for about 5 minutes, check for oil leaks around the drain hole.

screw and stop the engine.

5) Pull out the oil dipstick, wipe its tip, insert it and pull it out again to check the oil level. If the insufficient, continue to top up. Note: If the work

machine is installed, run it to the ground before confirming.



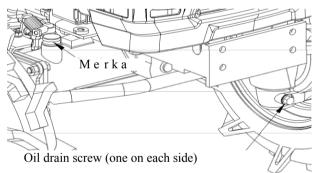
## 2. Front axle housing gear oil change

## • Replacement method:

 Pull out the oil dipstick at the front oil fill hole. At the axle housing, unscrew the oil drain screw with a wrench to drain the gear oil.

Note: Pulling the dipstick out makes it easier to

### drain the gear oil.



- 2) After draining the waste oil, screw back the drain screw and tighten it with a wrench.
- 3) Add the specified amount of gear oil

via

front axle housing oil filler.

4) After filling the gear oil for about 10 minutes, insert the dipstick and check the oil level. If the oil level is insufficient, top it up.

Inspection and maintenance every 400 hours

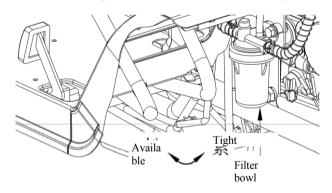
1. Cleaning the fuel filter and replacing the filter cartridge



If you remove the filter bowl when the fuel tank is nearly full, fuel will backflow from the return line into the filter. Therefore, cleaning the fuel filter and replacing the filter cartridge must be done when the fuel level in the tank is less than half full.

• When the filter bowl is removed, the valve on the filter cover should be checked to ensure it closes and the overflow of fuel from the fuel tank is automatically stopped.

- Replacement method:
- 1) Turn the filter bowl counterclockwise by hand until the filter bowl is removed.
- 2) Remove the old filter element and clean the inside of the filter bowl with diesel fuel.
- After inserting the new filter element into the bowl, screw and tighten the bowl back into the filter by hand.



## Important

- Take care not to allow dust or dirt to get on the gearbox during installation.
- After removing the bowl for cleaning and retightening, be sure to bleed the air. Note: See the "Venting the Fuel System" section in the "Venting the Fuel System" chapter.

#### Inspection and maintenance every 800 hours

#### **1.** Check and maintain engine valve lash

Have the valve valve replaced and checked by your dealer or a designated after-sales service center.

#### Inspection and maintenance every 1 year

### 1. Replacement of air cleaner element

Replace the filter element every year of use or every 6 cleanings.

Note: See "Cleaning the air cleaner element" in the

"Inspection and maintenance every 100 hours" section.

Inspection and maintenance every 2 years

1. Cooling water change

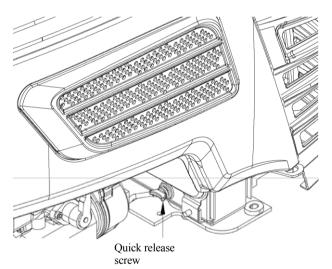


If the radiator cap is opened while the engine is running or immediately after the engine is turned off, coolant may splash out and scalding may occur. Therefore, wait until the engine stops running for more than 30 minutes to cool down, then slowly turn the radiator cap to the first position to the stop position to release the residual pressure, and then continue turning to turn the cap

1) Replacement Method

 Manually unscrew the quick-release bolt on the radiator near the engine and the radiator cap at the top to drain all coolant.

Remove the **auxiliary water reservoir** and drain the waste fluid from it.

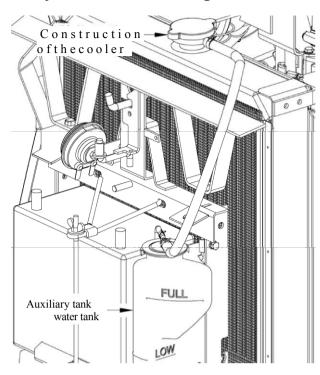


Flush the radiator with tap water. After flushing, screw the quick-release screw back onto the radiator, tighten it and install the additional water valve.

Return the tank to its original position.

When sufficient coolant has been added to the radiator and auxiliary water tank, tighten the radiator cap and depress the auxiliary water tank cap.

Note: It is normal for the amount of cooling water in the auxiliary tank to be between "FULL" and "LOW".



### 2) Method of application of antifreeze

Antifreeze can reduce the freezing temperature of water and prevent damage to the cylinder and radiator due to freezing of cooling water. If the air temperature drops below 0°C in winter, be sure to mix antifreeze with clean water to refill the cooler and additional water tank, or always use cooling water mixed with antifreeze.

Note: When the tractor leaves the factory, it contains cooling water mixed with antifreeze.

#### Important

- Add 50% antifreeze to the cooling water and mix thoroughly before use.
- If the antifreeze mixing ratio is incorrect, the cooling water may freeze in winter and overheat in summer.
- Do not add detergent to the radiator when using antifreeze. As the anti-corrosion agent is added to the antifreeze, it f o r m s deposits. Mixing with detergent will adversely affect engine parts.
- The effective life of antifreeze is 2 years, and must be replaced after two years of use.

The antifreeze temperature data is as follows:

Mixing ratio of the storage solution %	Guaranteed antifreeze temperature °C
10	-4
15	-5
20	-8
25	-11.5
30	-15
35	-20
40	-25
45	-30
50	-35
55	-40

### 2. Cleaning the radiator

Flush the radiator with tap water every 2 years of use or when antifreeze needs to be topped up.

Note: If a radiator cleaner is used for cleaning, dirt can be cleaned out.

#### 3. Replacing the various rubber hoses

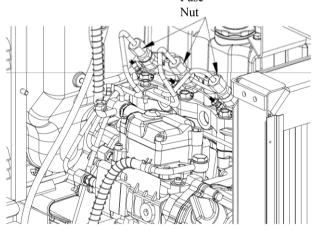
- Radiator hoses.
- Fuel hose.
- Air intake hose.
- Hydraulic hose. Have the hoses checked and replaced by your dealer or a designated aftermarket service center.

Note: Replace the rubber hose and its retaining strap.

#### Necessary inspection and maintenance

#### 1. Fuel system venting

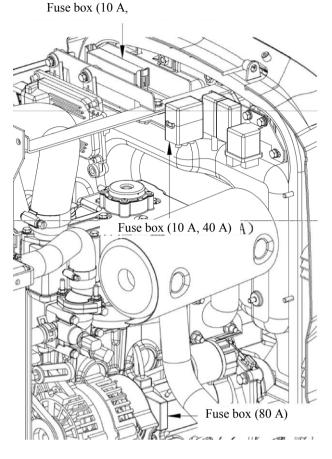
- 1) The fuel system must be vented in the following cases:
- The fuel filter and connecting hoses are removed and reinstalled.
- The fuel is drained and refilled.
- The tractor is stored for a long time and restarted.
- 2) Venting method
- Fill the fuel tank with fuel.
- Loosen **the lock nut of** the high-pressure oil line with a spanner.
- Start the engine and let it run for about 1 minute, then switch off the engine.
- Tighten the high pressure oil line **lock nut** with a spanner.
- Check for oil leaks near the lecknut.



- 2. Replacing the fuse
- 1) Replacement method
- Remove the fuse box cover.
- Remove the fuse.
- Replace the fuse with the same capacity as the blown fuse.

## Important

 If a newly replaced fuse burns out quickly, go to your dealer or designated after-sales service location for inspection and maintenance.



Note: If wiring is required to install additional work lights (optional) on the tractor, contact your dealer.

#### 3. Replacing lamps

- 1) To replace, remove the turn signal bulb from the rear of the light housing.
- Other work lights are LED combination lights. They must be replaced with new ones when damaged.
   Whole. For inspection and maintenance, contact your dealer

or designated after-sales service location.

## Tractor storage

#### Maintenance during long-term storage

#### If you will not be using the tractor for an extended period of time, perform the following maintenance before storing:

- 1. Repair defective parts.
- Change the engine oil in the engine and perform corrosion prevention for 10 to 15 minutes at speeds above 2,000 rpm to allow oil to spread to all parts. Thereafter, perform the same corrosion prevention every 1 to 2 months.
   Note: If the cooling water was drained during the corrosion prevention operation, fill the radiator with clean water before starting the engine. Drain the clean water after operation is completed.
- 3. Check and confirm the items in the Parts List for periodic inspections.
- 4. Lubricate moving parts that are susceptible to corrosion with grease or oil.
- 5. Drain cooling water. If the cooling water is supplemented with antifreeze, there is no need to drain it.
- 6. Unscrew the drain screw at the bottom of the clutch housing and check for water ingress.
- 7. The tyre pressure is slightly higher than the standard value.
- 8. Remove the battery from the tractor and store it in a cool, well-ventilated place. If the battery will not be removed from the tractor, remove the ground wire.
- 9. Remove the counterweight and remove or lower the implement to the ground.
- 10. Place wheel stops in front of and behind the rear wheels.
- 11. Check for damage to cables, battery lines, rubber hoses and tractor coatings, and check for dropped fastening straps and carry out maintenance.
- 12. Fully charge the battery once a month using the battery charger.
- 13. The storage area must be dry and free of water, free of combustible materials such as straw, and the tractor must be covered with a fabric cover.

## Important

- If the tractor needs to be washed for long-term storage, switch off the engine. If it is necessary to start the engine, take care that water does not enter the engine through the air cleaner inlet. Otherwise a malfunction may occur.
- Be sure to remove the key in the [Stop] switch position before storing.
- When installing the battery, check the (+) and (-) poles carefully and do not connect them incorrectly. Reverse
  wiring can damage the tractor electronics.
- After the muffler and engine have cooled sufficiently, cover them with a tarp. Otherwise, it could cause a fire.

## Tractor transport

### Safety precautions for transport

# As a rule, the tractor is not packed and accessories, implements and parts that have to be removed during transport are packed separately and transported with the tractor.

- 1. Loading and unloading shall be carried out in a level and open area.
- 2. A special loading and unloading platform shall be used for loading and unloading.
- 3. During loading and unloading, professional staff must be present on site to guide you and unskilled workers must not be allowed to approach.
- 4. After loading, set the main/auxiliary gear shift lever and PTO shifter to **[Neutral] (N)**, depress the brake pedal, and pull the parking handle to **[ON]**. Turn the key to the **[Stop]** position and pull it out.
- 5. Once loaded, secure the front and rear of the four tyres in a ' $\Lambda$ ' shape using strong ropes. Wedge the front and rear tires firmly and tighten the front and rear axles with the fixed cables.
- 6. If the tractor is equipped with a rear-view mirror, the rear-view mirror shall be drawn inwards as far as possible and may be removed and packed separately if necessary.
- 7. When vehicles pass through tunnels, bridge openings and columns with height restrictions, full attention must be paid to ensure that the tractor does not exceed the height limit and slow down when turning.
- 8. When unloading, release the parking brake, shift into forward gear and slowly descend at the lowest speed.

## Engine faults and troubleshooting

## If the engine fails, perform the diagnostics in the following table and take appropriate action.

Symptom	Reason	Troubleshooting
	1. Fuel not flowing	<ul> <li>Check the fuel tank and remove accumulated dirt and water.</li> </ul>
		<ul> <li>Check the fuel filter and clean it if it is dirty.</li> </ul>
	2. Air and water are mixed into the fuel	<ul> <li>Check all fuel hoses and f a st e n e r s, tighten them if loose, and replace or repair if damaged.</li> </ul>
Difficulty starting the engine	system.	<ul> <li>Venting. (See Necessary Inspection and Maintenance section).</li> </ul>
	<ol> <li>If the temperature is low, the oil viscosity is high and the resistance when the engine is running is high.</li> </ol>	• Pour hot water on the radiator.
	when the engine is fullning is ingli.	<ul> <li>Use different brands of engine oil depending on different temperatures.</li> </ul>
	4. The battery is discharged, causing t h e starter motor not to turn fast enough to start.	• Charging the battery.
	1 Natarauch fuel	Refuel.
The output is insufficient	1. Not enough fuel	<ul> <li>Check the fuel system. (Pay special attention to make sure no air is mixed in.)</li> </ul>
1	2. Insufficient fuel flow	• Clean the fuel filter.
	3. Air filter is clogged	<ul> <li>Clean the filter cartridge.</li> </ul>
		Refuel.
Sudden stop	1. Low fuel	<ul> <li>Check the fuel system. (Pay particular attention to whether air has been mixed in.)</li> </ul>
	2.Fuel cannot flow.	<ul> <li>Check the fuel filter and clean it if it is dirty.</li> </ul>
	1. Fuel is not good.	<ul> <li>Replace it with premium diesel.</li> </ul>
Abnormally black exhaust	2. Excessive oil	<ul> <li>Adjust the amount of oil as specified.</li> </ul>
	3. Air filter is clogged	<ul> <li>Clean the filter cartridge.</li> </ul>
		<ul> <li>The amount of cooling water is insufficient. Refill it.</li> </ul>
Water thermometer indicator	<ol> <li>Cooling water has exceeded 110°C.</li> </ol>	• Check if there is any water leakage.
in red area		• Check the fan belt tension.
		<ul> <li>Check the front grille and radiator guard for debris blockage.</li> </ul>
Continuous blue and white	<ol> <li>Moisture remains inside the m u f f l e r when previous work ends with a long idling period or when a cold engine is running continuously at idle.</li> </ol>	<ul> <li>Warm up the muffler fully by loading it. Try to avoid continuous cold engine idling and long idling.</li> </ul>
smoke on start-up	2. Nozzle failure	• Check the nozzle.
	3. Fuel not good.	<ul> <li>Replace with premium diesel.</li> </ul>
	1	·

## Main tractor specifications

## 1. Main tractor specifications

SN	Ite	em	Unit			Va	lues						
1	Model a	nd name	-			ZX25, v	wheeled tractor						
2	Dr	ive	-		Fou	r-wheel drive	(4x4)						
3	Overall dimens	mm			2450×9	70×1807							
4	Whee	elbase	mm		1270 1320								
5	Turning	radius	mm			1200	/1700						
6	Clearance	e height	mm			2	85						
7	We	ight	kg		679			684					
		Production plant	-		SEE	EYES, HINOM	OTO, TAURO	S					
8	Matching engine	Model and specifications				XY	377-A						
0	Watching engine	Rated power	kW			18	8.5						
		Rated speed	rpm			30	000						
		Applicable fuel	-			Di	esel						
		-	With inner tube, steel hub, land wheel										
9	Front wheel Specifications		-	5-12									
		Wheelbase	mm	770 (standard)/960 ~ 1200 (adjustable)									
		Structural form	-	Without inner tube, steel hub, land wheel									
10	Rear wheel	Specifications	-	8-16									
		Wheelbase	mm	770 (standard)/960 ~ 1200 (adjustable)									
11	Clutch/br	akes type	-	Dry single-plate/disc (wet)									
12	Steerin	ig mode	-		Power steering (integrated)								
13	Differential Mec	hanism Mode			2 pairs of	bevel gears (	with differentia	ıl lock)					
14	Number	of gears	-		9 forward ge	ears, 3 reverse g	gears						
15	Shifting r	nethod	-		Combination of	of selective and	d constant gear	ring					
		Forward (high speed)		4.17	8.53	15	4.95	10.1	17.7				
16	Travel speed	Forward (medium speed)	km/h		-	-	2.74	5.61	9.8				
		Forward (low speed)		0.74	1.51	2.65	0.74	1.51	2.65				
		Retrieved from		1.48	8.35	-	1.48	5.49	9.8				
17	PTO speed / mot	tor speed	rpm		63	5, 1116, 623 (	reverse) / 3000	)	<u>.                                    </u>				
	Lifting device of the	Control mode	-	Position control									
18	working machine	Installation method	-	Position control Three-point connection									

Note: These general conditions are subject to change without notice.

## 2. Travel speed table

Auxiliary gear	Main transmission	Unit	ZX25
	Reverse		8.35
High	Forward 1		4.17
High	Forward 2		8.53
	Forward 3	- km/h	15
	Back	KIII/II	1.48
Law	Forward 1		0.74
Low	Forward 2		1.51
	Forward 3		2.65

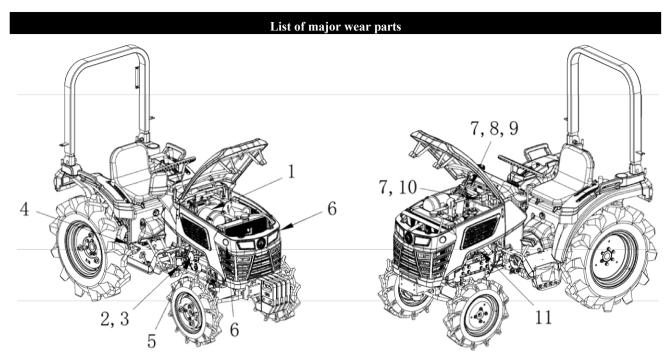
Auxiliary gear	Main gearbox	Unit	ZX25
	Backwards		9.8
TT: 1	Forward 1	-	4.95
High	Forward 2		10.1
	Forward 3		17.7
	Backwards	-	5.49
	Forward 1		2.74
Medium	Forward 2	km/h	5.61
	Forward 3	-	9.8
	Back	-	1.48
T and	Forward 1	1	0.74
Low	Forward 2		1.51
	Forward 3		2.65

Note: The above travel speed is based on the rated engine speed.

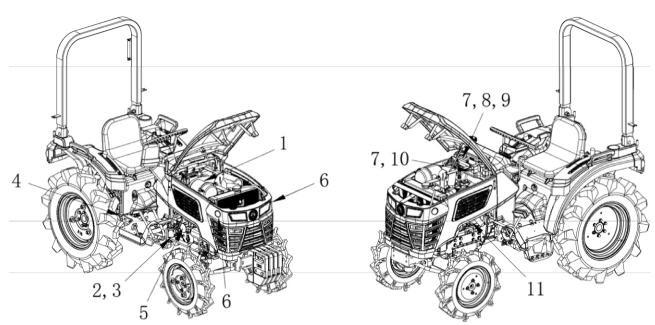
## 3. PTO parameters

-	-	ZX25
PTO speed (revolutions per minute)	Forward rotation 1	635
	Forward rotation 2	1116
	Reverse rotation	623

Note: The above speeds are based on the rated speed of the motor.



SN	Part drawing number	Part name	Appearance	Note
1	299000255	Air filter insert		
2	602071198	Fuel filter		
3	299000257	Fuel filter insert	3	
4	203001018	Hydraulic oil filter		
5	230000140	Oil filter	5	



SN	Drawing part number	Part name	Appearance	Note
6	212000358	Control light bulb	6	
7	212000001	10 A fuse	7-11	
8	212000152	Fuse 20 A		
9	212000003	Fuse 30 A		Accompanyi
10	212000137	Fuse 40 A		ng accessories
11	212000248	80 A fuse		(Tool bag)

## List of standard accessories

SN	Drawing number	Name	Quantity/set	Note
1	208170455	Lifting rod	2	
2	208170458	Upper control arm	1	
3	216000136	End bar assembly	2	Wooden box
4	216000137	Bottom rod weldment	2	
5	601030132	Factory certificate	1	
6	601030133	Certificate with three guarantees	1	
7	219000527	Tractor Operator's Manual	1	
8	205000360	Lower shaft of the coupling pin	2	
9	201021925	Fixing plate of the end rod hinge	2	
10	207020021	End bar hinge sleeve	2	
11	205020058	End rod hinge shaft	1	
12	212000001	Fuse 10 A	1	
13	212000152	Fuse 20 A	1	
14	212000003	Fuse 30 A	1	
15	212000137	Fuse 40 A	1	
16	212000248	80 A fuse	1	
17	503030006	Washers 16	6	Tool bag
18	505030109	Pin shaft B16×55	6	
19	505030102	Pin shaft B18×100×10×86	1	
20	505120012	10×45 circlip pin	3	
21	505070011	Locking pin 4×32	8	
22	505080011	Spring washer 16	2	
23	501080002	Hexagon nut with groove type 2 M16×1.5	2	
24	500080069	Combination of bolt and flexible washer M12×45	4	
25	219000002	Phillips screwdriver (PH2)	1	
26	219000528	Open end wrench (17-19)	1	
27	219000004	Open Key (12-14)	1	
28	219000005	Open Key (13-16)	1	
29	219000007	Open key (8-10)	1	

## List of installable working machines



When installing a rear-mounted work machine, secure and install counterweights so that the load on the steering (front) wheels is 20% of the total weight.

Do not use a machine that does not provide a steering (front wheel) load of more than 20% of the total weight, even if the tractor is equipped with the maximum counterweight.

When using a front-mounted implement, install an additional implement or suitable counterweight on the rear of the tractor to improve stability.

SN	Work machine name	Purpose
1	Weeder in the set	For weeding and clearing paths in the orchard
2	Dry field ditch	For trenching in dry fields, orchards, greenhouses and other areas.
3	Rotary cultivator/cultivator	For breaking up the soil, levelling the soil surface after ploughing and for cutting root stubble that lies below the soil surface.
4	Fertiliser spreader	For efficient and effective spreading of fertiliser over a large area.
5	Trailer	For transport in orchards, farmland, greenhouses and other areas.
6	Potato harvester	For mechanised potato harvesting
7	Vegetable planter	For mechanised sowing of vegetables
8	Wheat planter	For mechanised wheat sowing
9	Pesticide sprayer	For spraying fruit trees in orchards with pesticides
10	Snow remover	For snow removal using a rolling brush, which greatly increases the efficiency of snow removal.



# Tauros Ltd.

Nivnická 2875, 688 01 Uherský Brod 1 Orders and sales: info@tauros.tech Service: jancar@tauros.tech Tel: +420 777 049 454

Tauros s.r.o., Czech manufacturer and seller of agricultural and municipal equipment



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