

Operator's manual



**Basic machine
City Ranger 2250**

Introduction

Dear Customer

Congratulations with your Egholm product

The City Ranger 2250 is a Danish designed and manufactured product which offers a very flexible way of maintaining outdoor areas.

Optimal use of your Egholm utility machine

To ensure optimal performance of your Egholm utility machine, please read this manual carefully before using the machine. Failure to do so can result in personal injury and damage to the machine.

Safety

The utility machine is equipped with various devices to ensure optimal operational safety both for the user and the surroundings. We ask you to pay particular attention to section 1.1 Safety. The machine must only be serviced by professionals.

The City Ranger 2250 is designed only for use by professionals. On delivery, the user will receive thorough training to become a competent operator.

Do not lend the machine to anyone who has not been thoroughly trained and has not read this manual carefully.

The operator's manual should be considered as a permanent part of the machine and so must remain with the machine if it is sold.

Warnings

Some items in this operator's manual are marked with this warning symbol. The warning indicates areas where extra care has to be taken to avoid personal injury or damage to the machine and its accessories.



The warning also shows what you should pay special attention to.

Reservations

As it is the Egholm policy to make continuous improvements, we reserve the right to alter the specifications and equipment at any time without notice. Egholm accepts no liability for errors or omissions in the operator's manual.

Contact us

Should you have any questions regarding your Egholm product, do not hesitate to contact Egholm.

Best regards

Egholm A/S · Transportvej 27 · DK-7620 Lemvig

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Introduction

**Honest
Machines**

The utility machine City Ranger 2250

The City Ranger 2250 is an outdoor utility machine with a complete range of special attachments that allows you to work outdoors, all year round. Sweeping and vacuuming in spring and autumn, mowing grass and lawn-edge cutting in the summer, sweeping snow, and spreading gravel and sand in the winter. The City Ranger 2250 is market tested, effective and professional. Designed for versatility, this user-friendly machine is extremely reliable and exceedingly comfortable to operate.

Quick-shift of attachments

Attachments can be changed quickly and easily. The new attachment system has a single lock and release lever. Use the lever – one click and the attachment is on. In less than a minute. Hoses and couplings are hidden (thus well-protected) and the hydraulics and water supply, power and vacuum hoses connect automatically.

Maintenance

Open a single side cover to check the water, oil, air filter and battery. No need to remove attachments.

Environment

The City Ranger 2250 is environmentally sound – today and tomorrow. Quiet when operating and practically vibration-free. The machine can use biological hydraulic oil and is far less harmful to the environment than the minimum levels set by the EU.

Comfort

The City Ranger 2250 is an ergonomically-designed outdoor utility machine. The cab is spacious, with good visibility on all sides, and the entry-opening is low and wide. The wheel and seat are fully-adjustable to suit the operator. The seat has suspension (with optional pneumatic suspension) and is very comfortable. All the operating controls – including the joystick for controlling the attachments – are positioned optimally for the operator. Optional air conditioning.

Publication

This manual is made in accordance with the requirements in standard ISO 3600:1996.

To order this manual please refer to this item number E50005486. This manual applies only to the Egholm City Ranger 2250.

General information

**Honest
Machines**

General information

1.1 Safety

In this chapter safety instructions are described in order to ensure safe operation. Special attention should be taken to read and fully understand the contents of this chapter. Any person who has not read and fully understood the contents of this chapter must not be allowed to operate the Egholm City Ranger 2250.



Avoid roll-overs

Do not drive the machine in a place where it can slide, tip or roll. Use the machine on a solid and regular ground. Do not drive on slopes with an incline of more than 10°.

(Picture 1)

The following situations are known to cause more instability in the machine and care should be taken by the operator to assure safe operation:

- Emptying the hopper on an incline.
- Maneuvering the machine with raised hopper.
- Abrupt steering.
- Maneuvering with speed, on a slope or with weight on A-frame/B-frame.
- Maneuvering the machine on an irregular ground.
- Low tire pressure.
- Considerate driving is recommended.



Avoid standing close to the machine while it is in use

Make sure that no person is near the machine while it is in use as there is a danger of collision. (Picture 2)



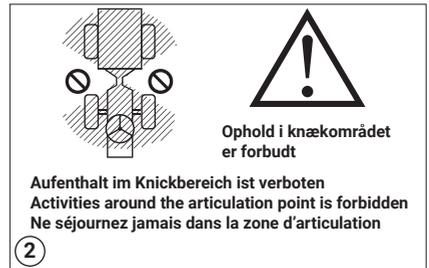
Attention

As it is articulated, the rear end of the machine swings out when turning. Make sure that no one is standing near the machine while it is in use. (Picture 2)



①

Do not drive on slopes with an incline of more than 10°



②

Prevent people from standing in the working area

General information

1.1 Safety - continued



Avoid crushing

Make sure that nobody puts their hands, feet or any limb close to the mobile or articulated parts of the vehicle. (Picture 1+3)



Do not inhale exhaust gas

Exhaust gas is hazardous to health and can even be fatal. If the machine is run in a confined space, the exhaust gas must be adequately ventilated out of the room or area, using an exhaust hose, for example. Otherwise doors and windows must be opened to allow fresh air inside.



Exhaust pipe line

Do not touch the exhaust pipe line and the D.O.C. (diesel oxidation Catalyst) as it becomes very hot when the machine is running. (Picture 1)



Hydraulic components

Be aware that the hydraulic components may get hot when the machine is in use.



Mount/Dismount of attachments

Mount or dismount attachments on a flat or stable ground only.



A-frame

Keep fingers and hands away from the A-frame as there is a danger of crushing.



Turn the steering wheel carefully

The City Ranger 2250 is articulated – it turns sharply, immediately. (Picture 2)



Other hazards

There may be other circumstances and situations than those mentioned above where it may be dangerous to use the City Ranger 2250.



Avoid crushing fingers



Exhaust pipe



Articulated joint

1.1 Safety - continued

Take care while handling potentially dangerous products

- Do not smoke when filling up.
- Do not spill diesel on the engine, the mechanical parts or the vehicle body.
- The brake fluid is very harmful and very corrosive. Avoid contact with the skin and eyes. In case of contact, rinse thoroughly with clear water. Any part of the vehicle in contact with the brake fluid should be rinsed out with clear water to avoid corrosion.
- The acid contained in the battery is very harmful and very corrosive. Avoid contact with skin and eyes. In case of contact, rinse thoroughly with clear water.
- In case of critical injuries, seek medical help.

General information

1.1 Safety - continued

Environment

Please consider the environment when any of the various fluids (brake liquid, battery liquid, hydraulic fluid, diesel, oil, and cooling water) should be discharged. Always discharge in accordance with local regulations.



Operation instructions

- Always watch out for the traffic while operating the machine.
- The City Ranger 2250 belongs to the category of public works vehicles. This vehicle should not be used for the transport of humans or goods.
- Climbing pavements is possible up to 15 cm from the ground (traditional pavements) and should be done very slowly.
- Remove the ignition key when leaving the machine in order to avoid unauthorized use.



1 Cooling fan



2 Articulation joint warning

Maintenance

The company Egholm is by no means responsible for damages or accidents caused by misuse or by a lack of maintenance of the vehicle. When non-original spare parts are used, or attachments or other components are used which are not approved by Egholm, the guarantee will not apply.



- Only work in the engine compartment when engine is turned off and cooled. Keep a safe distance and wear safety glasses.
- Never put your hands in or near the cooling fan when it is running. (Picture 1)

Safety signs

The machine is equipped with two safety signs located in the articulation joint on the front frame. One on each side. The sign says that activities around the articulation point are forbidden. The sign must be kept clean and visible at all times and visible. If sign is missing or illegible it is the owner's responsibility to ensure that it is replaced. For ordering replacement please refer to item number E03001450. (Picture 2)

1.2 Attachments

City Ranger 2250 is designed to work with the following attachments:

Attachments	Type
Suction Sweeper - Hopper	FST2250
Suction Sweeper - Sweeper section	4FS2250
Suction Sweeper - Side brush	FSS2250
Mulch mower/Rotary mower 1200	22DLM1200
Mulch mower/Rotary mower 1600	22LM16
Grass collector	22GOT
Flail mower / Verticutter	22SLK
Weed brush	22UKB2250
Dozer blade	22DZ13
Hedge trimmer	HK1300MINI/2250
Lawn edger	22VKS1
Salt and sand spreader	22SG
Snow sweeper	22SK120
Tipping shovel	22VS200
Snow V-blade	GMR
Snow blower	Rapid 1565/1566

There is an operator's manual for each attachment.

Operation with these attachments must follow the instructions outlined in the relevant operator's manual. Do not operate the City Ranger 2250 with the attachment unless all instructions have been followed.

General information

1.3 EC Declaration of Conformity

Manufacturer: **Egholm A/S**
Address: **Transportvej 27 · DK-7620 Lemvig**
Telephone: **+45 97 81 12 05**

hereby declares

that **City Ranger 2250**
Serial no.: **UHM 2250B MKII (manufacturing year)**
A XXXXX (serial number)

· has been manufactured in conformity with the provisions of Regulation (EU) 167/2013 and Directive 2006/42/EC

Any alteration, rebuilding or addition of implements, accessories or other equipment not manufactured by Egholm automatically results in the cancellation of type approval, CE approval, any other approval, as well as any warranty on machine and attachments.

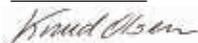
Unless otherwise agreed in writing between the operator, customer and Egholm, Egholm is the data originator (data originator) of all data generated by the machine and attachments during use.

Person authorized to compile the technical documentation:
Knud Olsen
Egholm A/S
Transportvej 27 · DK 7620 Lemvig

Place: Lemvig

Date:

Signature:



Knud Olsen, Senior Engineer

1.4 Technical data

Dimensions

Length (L)	2.400 mm
Width (W)	1.070 mm
Height with cab	1.960 mm
Height including roll bar	2.060 mm
Max. speed	20 km/h

Weight

Machine weight (including cab)	970 kg
Unladen weight - City Ranger 2250 with roll bar	940 kg

Max. permitted weight:

Utility machine	1.610 kg
Machine and trailer without brakes	2.050 kg
Machine and trailer with overrunning brakes	2.500 kg
Trailer without brakes	750 kg
Trailer with overrunning brakes	1.610 kg
Max. vertical load on coupling point	100 kg
Permitted axle load, front	900 kg
Permitted axle load, back	900 kg

Tyre

Tyre size	20x10.00-10,6PLY
Tyre pressure	2,8 bar or 40 PSI
Tyre max. load.	450 kg

Engine

Type/manufacturer	Perkins
Type.	404D-15 - GM36/3000
Engine power	35 hp or 26,5 kW at 3.000 rpm

Cylinders	4
EU norm	Stage 3A

Refer to the engine operator's manual for further technical data.

General information

1.4 Technical data - continued

Fuel

Fuel	Diesel
Fuel tank capacity	38 l diesel
Fuel consumption -in accordance with EN 15429-2	approx. 4,8 L per hour

Lubricating system

Lubricating system	Pressure-lubricating system with filter
Lubricants	
Engine oil	approx. 4.6 l, synthetic 5W-40 API CF, CF-4, CG-4, CH-4
Air filter	Dry, replaceable filter
Cooling system	Liquid coolant

Electrical system

Start system	Electrical starter with glow plugs
Charging system	Generator
Charging capacity	12 V, 65 A
Battery	12 V, 80 Ah battery

Hydraulic oil

Type	Texaco Rando HDZ 68
Tank capacity	21 l

Brakes

Service brakes	Drum brakes on front wheels
Parking brakes	Friction brakes on front wheels
Emergency	Hydrostatic braking

Sound measurements

-in accordance with European Directive 2009/63/EC	
With cab:- Stationary	75 dB(A)
- In motion	76 dB(A)
With roll bar:- Stationary	83 dB(A)
- In motion	78 dB(A)
-in accordance with European Directive 2009/76/EC	
With cab:- Operator seat, open windows	84 dB(A)
- Operator seat, closed windows	81 dB(A)
With roll bar:- Operator seat	85 dB(A)

1.4 Technical data - continued

Vibration test

Egholm S.p.a. can declare that if the machine is used according to these instructions, the vibrations do not cause dangerous situations.

Whole body, EN 13059 0,7 m/s²

Hand/arm, EN 13059 1,0 m/s²

Seats mounted for vibration test: COBO SC79-M97 or SC79-M200

Both seats are approved according Directive 78/764/EEC.

Cab

Falling Object Protective Structure - FOPS

The City Ranger 2250 and its attachments do not operate with processes where falling objects are a risk

Roll-Over Protective Structure - ROPS

Tested according to Directive 86/298/EEC and fulfills OECD

Code7

Contact with Hazardous Substances

The air intake contains a filter to protect the driver against dust inhalation. The filtration class, according to EN 779, is F8.

Cab classification according EN 15695-1 is Category 1.

This cab category does not provide protection against hazardous substances.

City Ranger 2250 fitted with this cab shall not be used under conditions requiring protection against hazardous substances.

Turning circle

Turning circle - kerb to kerb 3.280 mm

Turning circle - inside. 1.200 mm

Information plate

Mounted on the right side of the front chassis

Operating City Ranger 2250

There is no need for special tools to operate the City Ranger 2250

Attention

Specifications may change without notice.

General information

1.5 Access to the cab

Access to the cab is from the left side door. The door is opened by pressing the button on the handle. (Picture 1)

To enter the cab, simply step directly in. (Picture 2)

To leave the cab, the door is opened by pressing the internal handle. (Picture 3)

There is a similar door on the right side. This door is operated in the same way as the left door and can be used as an emergency exit.



Attention

There is a similar door on the right side. This door is operated in the same way as the left door and can be used as an emergency exit.



Attention

Always lock the machine when leaving. Never leave keys in ignition lock.



Attention

Keep cabin free of loose items that may interfere with safe operation of the machine. Always store items in the storage box. (Picture 4)



Button on door handle



Cab floor



Internal door handle



Storage box

1.6 Steering column



Ignition lock and light switch

1. Ignition lock.
2. Position light/0/light switch.
3. Instrument panel.

Automatic alarm

Turning the ignition key activates the alarm for two seconds, followed by one second pause and activation for two seconds. When the alarm sounds it is repetitive, 2 seconds beep, 30 seconds pause (max 3 beeps).

General information

1.6 Steering column - continued

Instrument panel

4. The pre-heater light is activated when the ignition key is turned, showing that the engine pre-heater is on. When the light goes out, the ignition key can be turned all the way to start the City Ranger 2250.

5. Parking brake indicator.

6. Charging light.

Normally lights on ignition or when the engine starts. If the light stays on, stop the engine and find the cause. Check the generator belt.

7. Dimmed headlight indicator.

8. Indicator-light indicator.

9. Hydraulic filter alarm (when lit indicates filter must be replaced). Hydraulic oil low: Hydraulic oil required.

Note that the alarm device may be activated when the temperature falls to under +5 °C. Check oil level. If this is OK, restart the machine. The alarm device must deactivated after no more than 15 seconds.

10. Oil alarm.

If the light is on during operation, stop the engine immediately and check the oil. If the oil is low, it must be topped-up immediately

11. Temperature alarm.

If on it indicates the engine temperature is too high. Switch off all attachments and let the engine run on half-power (rpm) for approx. two minutes. If necessary, clean the radiator grills. The operating hydraulics will automatically disconnect when the overheating alarm device is activated.

12. Air filter blockage alarm (optional).

13. Fuel tank indicator. Lights up when there is less than five litres of fuel left in the tank.

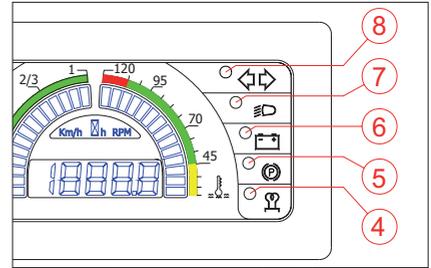
14. Fuel tank level.

15. Time/rpm/speed counter. Time shown on start-up Automatically switches over to show rpm.

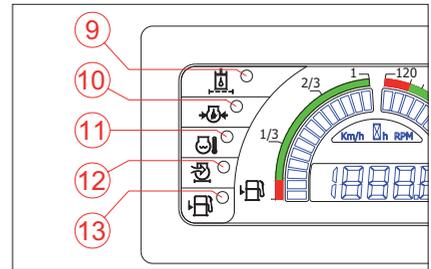
16. Shows rpm or km/h.

17. Engine temperature indicator.

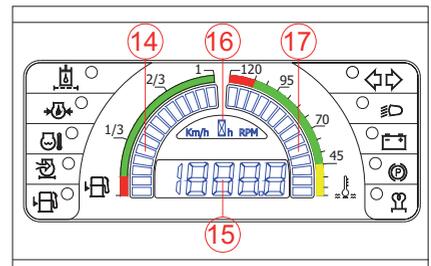
Sound alarm activates in case of 6, 9, 10, 11, 12 and 13



Instrument panel – right



Instrument panel – left



Instrument panel – centre

1.6 Steering column - continued



Steering column

18. Instrument panel switch to switch between rpm and km/h.

19. Indicator-light switch/arm.

20. Horn switch.

21. Transport lock (disengaged position).

ON: Handle must be moved up to the highest position. As the A-frame lifts, the transport lock is automatically activated. OFF: Unhitch the handle and lift the A-frame to the uppermost position. The attachment can now be lowered again.

22. Parking brake.

The parking brake is engaged by: Press the brake pedal all the way down. Lift the handle up. Release the brake pedal again. To disengage the parking brake: Press the brake pedal. This frees the handle.

23. Indicator-light, trailer.

24. Steering system failure.

General information

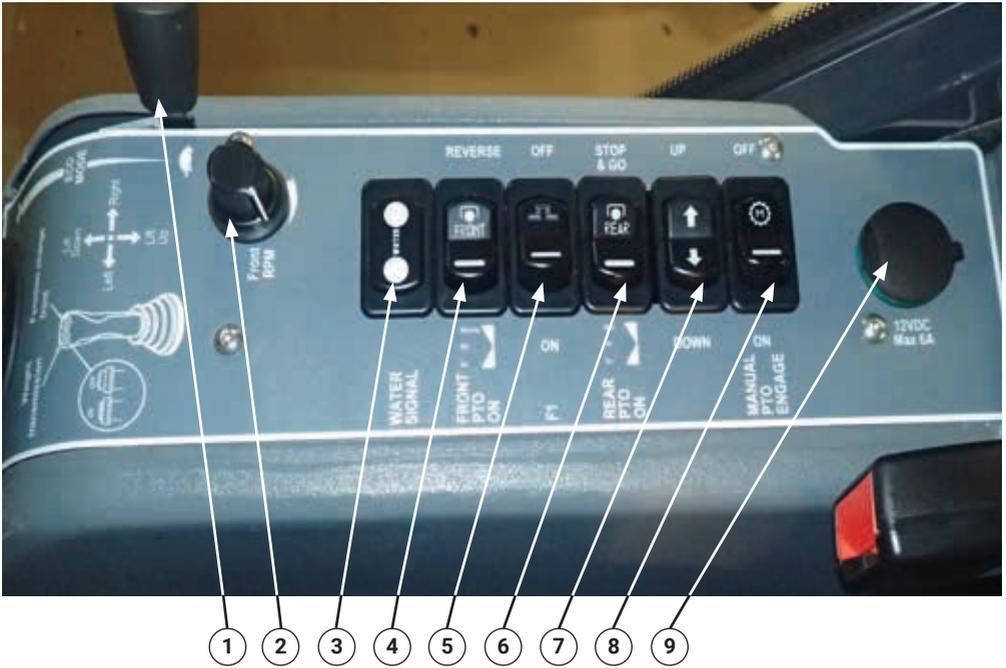
1.7 Operational features



1. Work light, front.
2. Work light, rear.
3. Rotary light. (0 -1-2)*
4. Windscreen wipers / Interval wiper.
5. Washer.
6. Fan heater.
7. Air conditioning (option).
8. Hazard lights.
9. Bluetooth radio with USB port and SD slot (option).

* In position 1 (the middle position), the switch turns the beacon on.
In position 2, the LED blitz front (option) turns on together with the beacon.
Attention! The LED blitz must not be on during transport on public roads.
Check the local regulations for use of LED blitz in working situations.

1.8 Joystick console



1. Throttle.

2. Front attachment speed adjustment (attachment specific).

3. Lamp indicator for water supply on suction sweeper hopper.

4. PTO front: Press left for "on", middle position for "off" and right for reversing.

5. Function (F1), (attachment specific).

6. PTO rear: Press left for "on", middle position for "off" and right for start/stop function "Stop & go".

7. Function. (F2), (attachment specific).

8. Manual start-up:

To start-up an attachment while not sitting in the cab, do the following:

A) Push the throttle all the way forward (full rpm).

B) Hold the switch (8) down, at the same time turning on the attachment (4) and/or (6).

C) Release the switch after five seconds.

9. 12 V connector.

General information

1.8 Joystick consol - continued



- 10 11 12 13 14 15

10. Joystick for A-frame.

To lift A-frame: move the joystick up.

To lower A-frame: move the joystick down.

Sideways movement of joystick is dependant on attachment.

11. Function-change switch for front attachment (attachment dependant).

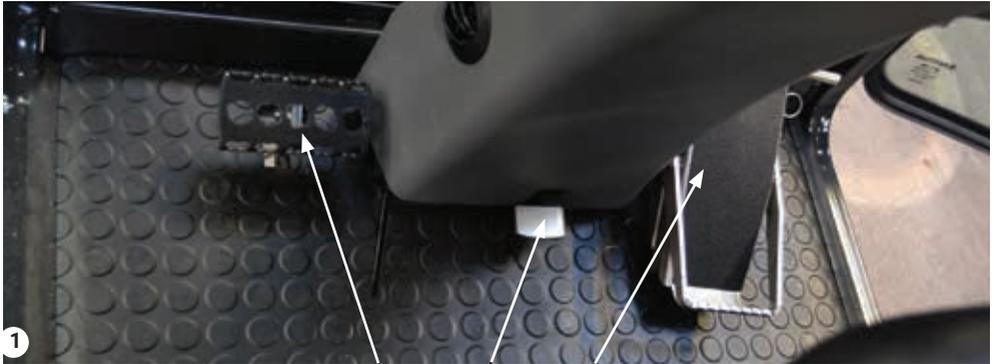
12. Weight distribution ON/OFF switch.

13. Joystick for the rear attachment and hydraulics on the back end. The functions are attachment-dependant. See the attachment operator's manual.

14. Adjusting weight distribution. Adjust the weight distribution until the attachment is weightless. Then adjust the weight transfer until the attachment touches and follows the ground. Adjust further for additional ground pressure from the attachment.

15. Safety cover.

1.9 Pedals



1. Brake pedal

Depress to brake.

When the brake pedal is pushed all the way down, the drive pedal is de-activated. Parking brake See section 1.6, point 22. (Picture 1)

2. Steering wheel pedal

Push pedal down to adjust steering wheel. (Picture 1)

3. Drive pedal

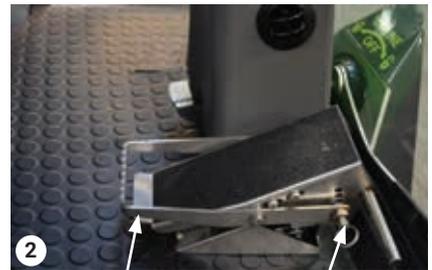
The speed of the machine is variably controlled by the throttle. When the drive pedal is engaged acceleration is automatic (engine rpm).

Forward drive: Move the pedal forward.

Reverse drive: Move the pedal backwards.

The pedal automatically returns to the neutral position.

To drive at full speed, the throttle should be moved all the way forwards. (Picture 1)



Heel support

Spring pin

Adjustment of the heel support

The heel support on the drive pedal is adjustable to get the optimum drive position for the foot.

The spring pin is pulled back, the heel support is turned in the desired position and locked again with the spring pin. (Picture 2)

Advice when driving on a steep slope

Users of City Ranger 2250 have reported that, from time to time, they feel that the machine does not accelerate properly when driving up an incline. The machine is designed to drive on an incline of no more than 22%. However, from experience we know that, under certain conditions, this machine can in fact cope with a steeper incline. Egholm has the following advice when driving up a steep incline:

- Set the throttle to min. 2400 rpm.
- Then regulate the speed of the machine using the foot pedal.
- The function of the foot pedal can be compared to changing gear up or down. The more you press down on the pedal, the higher the gear - the less you press down on the pedal, the lower the gear.

General information

1.10 Start/stop function for salt and sandspreader

The start/stop function ensures that the spreading stops while the machine is stationary (PTO rear stops), so that the salt and sand spreader only spreads when the machine is in motion.

Activate the start/stop function on the control panel by pressing the PTO rear switch to the right ("Stop & go").

Deactivate the start/stop function by pressing the PTO rear switch back to neutral. (Picture 2)



Remark

The start/stop function only operates the salt and sand spreader. If it is attempted used for other attachments, these attachments will stop when the machine is stationary.



Control panel

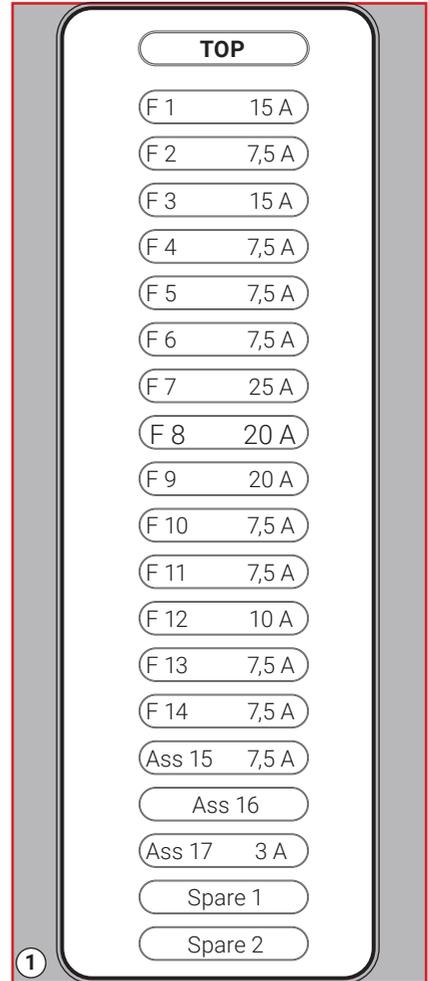


Stop and go switch

General information

1.11 Fuses

F 1	15 Amp	Front head lights and supply ASS 15.
F 2	7,5 Amp	Safety/brake contact, seat contact, stop-lamp and PTO circuit.
F 3	15 Amp	Fan heater relay and A/C.
F 4	7,5 Amp	Weight distribution joystick, fan drive and reverse alarm.
F 5	7,5 Amp	Wheel speed sensor, STOP&GO and PTO front control.
F 6	7,5 Amp	Fuel lift pump and display.
F 7	25 Amp	Glow plugs and supply ASS 17.
F 8	20 Amp	Windscreen wiper and radio.
F 9	20 Amp	Beacon and working light.
F 10	7,5 Amp	A-frame switch and A-frame pole switch.
F 11	7,5 Amp	12 V DC Output cab and AUX trailer plug.
F 12	10 Amp	Starter relay.
F 13	7,5 Amp	Emergency supply cab, left front position-light, left rear light, license plate light and ignition switch.
F 14	7,5 Amp	Emergency supply steering column, right front position-light, right rear light and B-frame.
A 15	7,5 Amp	Rear view camera, relay fan / AC and supply ASS 16.
A 16	Diode	Indication light, horn and steering column.
A 17	3 Amp	Glow plug, indicator light on display.
Spare 1		Spare fuse.
Spare 2		Spare fuse.



Fuses



Fuses – Roof

General information

1.11 Fuses - continued

Main fuse - blue

Open right rear cover to access main fuse, 60 Amp. See Section 1.19. (Picture 1)

Fuse for signal lights - yellow

Fuse for parking lights and hazard lights, 20 Amp. (Picture 1)
(Fuse placed before main switch).

Main switch

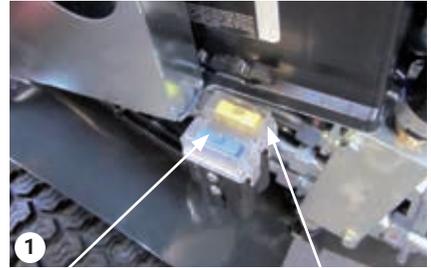
City Ranger 2250 will not start unless the main switch under the right rear cover is ON (vertical). (Pictures 2+3)

Battery

When connecting or replacing the battery, be sure that the power cords are connected correct to the battery terminals.

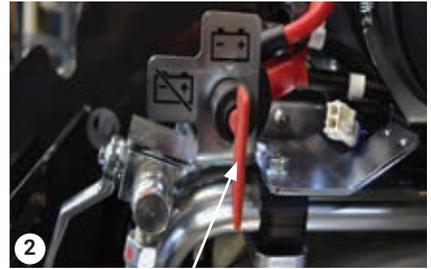
Be careful not to make any short circuit between the battery terminals.

Clamp the battery so it is well fixed and put on the terminal protection covers.

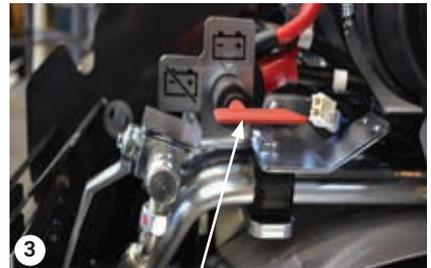


Main fuse - blue

Fuse for signal lights - yellow



Main switch – ON



Main switch – OFF

1.12 Towing

Towing

When towing City Ranger 2250, attach the tow line to the pull hook on the left side of the machine. (Picture 1)

Towing valve

The towing valve under the machine is used to move the machine manually. (Picture 2)

To tow: Switch off engine.
Turn valve until the lever is in the horizontal position.
Tow the machine.

When you have finished towing, turn the valve until the lever is in the vertical position.

The towing valve must be closed. If not, the machine will not run.



Warning

Do not start the machine until the towing valve has been closed.

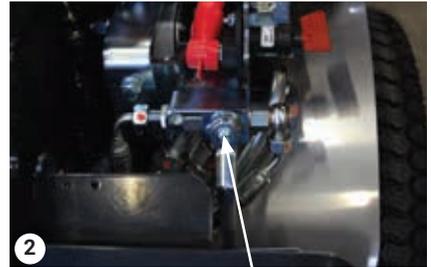


Attention

When towing, there is no servo system.



Pull hook



Towing valve

General information

1.13 Front attachment frame – A-frame

The A-frame locking handle must be in the open position if no attachment is attached. This protects the hydraulic couplings from dirt. (Picture 1)

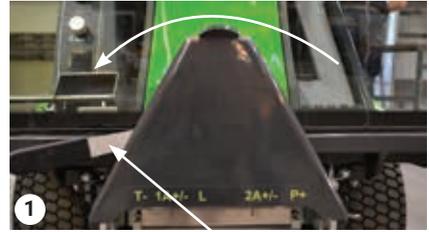
Connecting and disconnecting attachments

The engine must always be turned off before the attachment is connected/disconnected.

The quick-shift of attachments is not designed to be attached while the engine is running. Incorrect usage will destroy the couplings and will not be covered by the warranty.

The couplings and the area around the couplings must be kept clean to avoid an accumulation of dirt (See section 3.1).

Attaching an attachment: see the attachment operator's manual.



A-frame locking handle



B-frame locking handle



A-Coupling



B-Coupling



C-Coupling

1.14 Rear attachment frame – B-frame

The B-frame locking handle must be in the open position if no attachment is attached. (Picture 2)

Connecting and disconnecting attachments

The engine must always be turned off before the attachment is connected/disconnected.

The quick-shift of attachments is not designed to be attached while the engine is running. Incorrect usage will destroy the couplings and will not be covered by the warranty.

The couplings and the area around the couplings must be kept clean to avoid an accumulation of dirt (See section 3.1).

Attaching an attachment: see the attachment operator's manual.

General information

1.15 Cab seat – mechanical or pneumatic suspension

Adjust the seat to suit the driver.

Mechanical

Height: Adjust using the handle 1.
Anti-clockwise: higher.
Clockwise: lower.

Weight: Adjust using the handle 2.
Anti-clockwise: Softer suspension.
Clockwise: Firmer suspension.

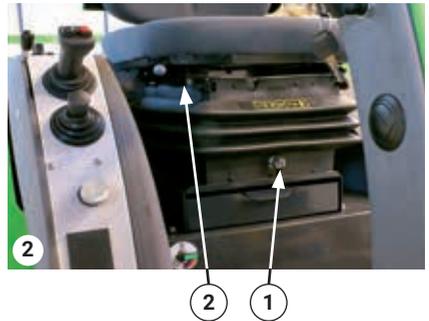
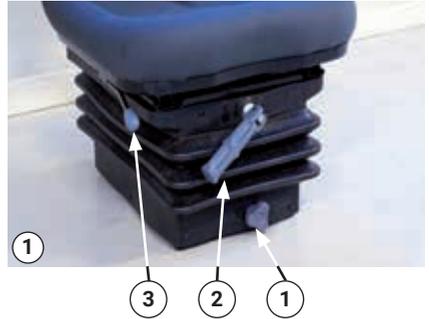
Forwards/backwards: Adjust using the handle 3.
(Picture 1)

Pneumatic

Higher: Adjust by gradually pressing the handle 1.
The suspension becomes firmer.

Lower: Adjust by gradually releasing the handle 1.
The suspension becomes softer.

Forwards/backwards: Adjust using the handle 2.
(Picture 2)



General information

1.16 Cab heating

To switch on cab heating, turn the lever under the seat until it is parallel with the seat edge. (Picture 1)

The cabin fan must also be activated.

1.17 Cab ventilation

Open the air damper behind the seat to ventilate the cabin. Use the handle on the left side of the seat. Push the handle away from the seat to open the air damper. (Picture 2)

1.18 Air conditioning

Air conditioning can be used if the cabin is too warm and if the windscreen and windows steam up in humid weather conditions. This applies also during the winter months.

To activate the air conditioning, the cabin fan must be running at level 1 or 2.

It is recommended the air conditioning is serviced at least once a year, to ensure it operates optimally.

NB

The condensate drain pipe must be checked/cleaned at each service or at least once a year. Failure to do so increases the risk of corrosion and bacterial accumulation in the system which can cause discomfort/sickness for the driver. Cabin filter must be checked/cleaned once a year.



Adjusting temperature



Air damper handle

General information

1.19 Opening and removing side screens

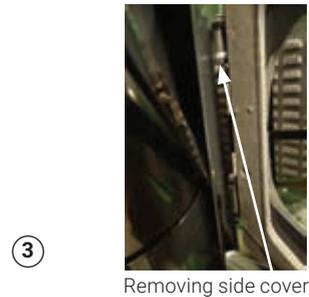
Opening side screens

1. Put the release key into the slot. Put light pressure on the side screen and on the release key at the same time. (Picture 1+2)
2. Open the screen.

Removing the side screen

Lift the side screen off by pulling slightly upwards and the hinges will pop of.

The machine is easier to service, when the side screen is unhooked. (Pictures 3+4)



General information

1.20 Opening the loading frame

The loading frame can be opened during general service.

1. Pull the release handle back. (Picture 1)
2. Pull the loading frame back all the way (until it cannot move further).



Warning

Do not start the engine when the loading frame is open. When the loading frame is open it blocks the exhaust pipe and it will heat up the loading frame. This can cause the wiring to melt. (Picture 2)



Release handle



Exhaust

Wiring

General information

1.21 Removing the cab/roll bar

1. Remove the doors from the cab to reduce the weight to be lifted (cab only).
2. Remove the air-intake grate on the rear of the front covers.
3. Disconnect the three connectors on the cables leading to the cab/roll bar. (Picture 1)
4. Unscrew the four bolts behind the driver's seat (two on each side), and remove the safety belt and lock. (Picture 2)
5. Loosen the two bolts under the base plate at the front of the machine. (Picture 3)
6. Tip the cabin/roll bar forwards and chock in place so that the sealing strip can be removed. (Picture 4)



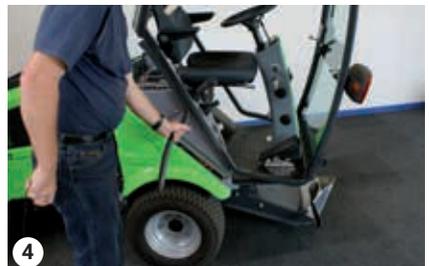
3 connectors behind grate



Loosen the 2 bolts on each side



Bolts under base plate



Chock, remove strip

General information

1.21 Removing the cab/roll bar - continued

7. Remove the sealing strip.
8. Pull out the cables. (Picture 1)
9. Tilt the cab/roll bar back into position.
10. Remove the two bolts under the base plate at the front of the machine. (Picture 2)
11. Lift off the cab/roll bar (min. 2 people). (Picture 3)



Pull out the cables



Bolts under base plate



Lift off cab/roll bar

1.22 Fitting the cab/roll bar

1. To fit the cabin/roll bar, lift over the steering wheel and seat.

To reduce lifting weight, remove the doors before lifting the cabin. (Picture 1)

2. Insert the two bolts under the base plate and attach the nuts (but do not tighten). (Picture 2)

3. Tip the cabin/roll bar forwards and chock in place so that the sealing strip can be attached. (Picture 3)

4. Attach a new sealing strip. Ensure that the four bolts behind the driver's seat can be inserted through the holes. Trim off some of the width of the strip adjacent to the holes if necessary.

5. Position spacers. (Picture 4)



Lift cab/roll bar



Bolts under base plate



Chock, attach strip



Position spacers

General information

1.22 Fitting the cab/roll bar - continued

6. Insert the cable into position. (Picture 1)
7. Tilt the cab/roll bar back into position.
8. Re-insert the four bolts behind the driver's seat and tighten. Due to tolerances, it may be necessary to guide the holes into the correct position (remember seat belt and lock). (Picture 2)
9. Connect the three connectors on the cables. (Picture 3)
10. Fit the filter and grate.
11. Attach the two rubber strips between the base plate and cab frame (cab only). (Picture 4)
12. Attach the doors to the cab (cab only).
13. If roll bar mounted, remember to fasten topframe of the roll bar. (Picture 5)



Insert the cables



Fit bolts



3 connectors behind grate



Rubber strips



Roll bar

General information

1.23 Trailer

When City Ranger 2250 is equipped with the approved coupling "class A50-X approval no. E2-55R-0112208", the following trailers can be connected:

Trailers without brakes	max. 750 kg.
Trailers with overrun brakes	max. 1500 kg.
Vertical load on trailer coupling (Picture 2)	max. 100 kg.



Remark

There is no brake assist system (brake line connection) for trailers on City Ranger 2250. Do not connect trailers with brake assist system to City Ranger 2250.

Connection of Trailers

Coupling: connect the trailer to the coupling and make sure that the connection lock is activated. Lift the support wheel on the trailer.



NOTE

If the trailer is fitted with overrun brakes, remember to attach the security wire on the trailer to the coupling.

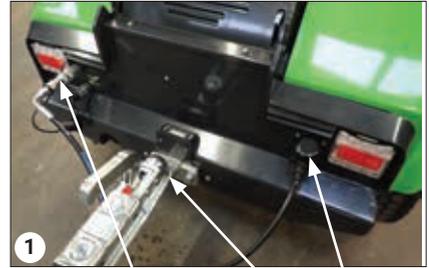
Light: to connect the light on the trailer insert the cable plug from the trailer into the connector on City Ranger 2250. Check its function.

Hydraulics: if the trailer has a hydraulic tipping function, connect the hydraulic hose to the snap coupling at the rear. (Picture 1)



Warning

Make sure that no one is standing between the machine and the trailer or near the working area.



Hydraulic connection Coupling Light plug



Type plate

Operator's manual

**Honest
Machines**

2.1 Daily checks before start-up

Open left rear screen

1. Put the release key into the slit. Put light pressure on the side screen and on the release key at the same time. (Picture 1)
2. Open the screen all the way or remove the screen.

Special attention must be given to the following checks

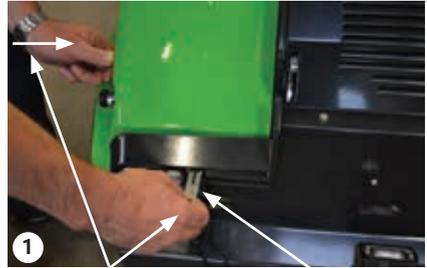
Engine oil

Remove dipstick. (Picture 2)
The oil level must be between the two lines on the dipstick. (Picture 3)

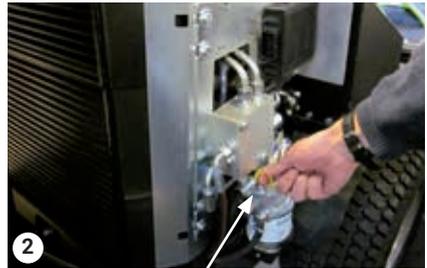
Hydraulic oil

When the machine is switched on, the hydraulic oil lamp must not light, see section 9, page 14. If the lamp lights, the hydraulic oil level is too low, top up with hydraulic oil. The hydraulic oil level can also be checked visually on the sight glass of the hydraulic tank (picture 4). Must be visible in the sight glass. (Picture 4)

Topping-up – see maintenance section 3.4.



Light pressure on release key and side screen Release key



Engine oil – dipstick



Min. Max.



Hydraulic oil – sight glass

Operator's manual

2.1 Daily checks before start-up - continued

Diesel oil

Tank capacity 38 l. (Picture 1)

The oil lamp (see section 1.6) is on when only 5 l of oil are left in the tank. (Picture 2)

The oil lamp will only light when the machine is on.

Check coolant

Remove the coolant cover and check that the expansion tank is $\frac{3}{4}$ full. (Picture 3)

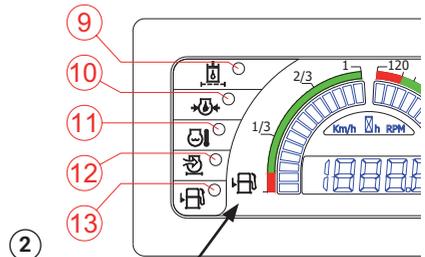


Attention

Never remove the water cover when the engine is hot.



Topping-up diesel



Diesel oil lamp



Expansion tank – check coolant

2.2 Start, drive and stop

Rules to follow while driving

- Any person using the vehicle must be sufficiently trained for using and handling the City Ranger 2250.
- Do not drive on a gradient steeper than 30%.
- Always drive carefully.
- Do not forget that the City Ranger 2250 is a relatively high and narrow vehicle. Turning should therefore be done at a low speed.
- Do not let the engine run in a closed area: there is a risk of asphyxiation.
- The braking distance of your vehicle increases when the road is wet and/or when your vehicle is loaded.
- Be aware of the steering sensitivity and reactivity.
- Always put on the safety seat belt.
- Never drive with an open door.
- If an alarm lamp is on or flashing when driving, please stop in a safe place and refer to this manual. (see Section 1.6)
- Always adhere to local traffic legislation.

Before starting the vehicle, the following conditions must be met

1. The PTO front and PTO rear contacts must be disengaged (middle position on switch). (Picture 1)
2. The towing valve must be closed. (Picture 2)
3. Operator must sit in the cab seat.
4. The brake pedal must be pushed all the way down (section 1.9), or the parking brake engaged (section 1.6).



PTO front - PTO rear



Towing valve in closed position

Operator's manual

2.2 Start, drive and stop - continued

5. Turn the ignition key (clockwise) until the pre-heater indicator and other indicators light up (section 1.6).

Once the pre-heater light goes out, the ignition-key can be turned further to start the City Ranger 2250.

6. Release the brake pedal/parking brake.

7. The drive pedal can now be engaged.

Pedal movements:

Forward - The machine drives forward.

In middle position - Stop.

Back - The machine reverses.

Speed is variably adjusted. See section 1.9.

The function of the City Ranger 2250's propulsion system

- **The City Ranger 2250 must be expected to have operating changes within the first 25-50 hours of its lifetime.**
- **The City Ranger 2250 is developed with controlled deceleration.**
- **The City Ranger 2250 is featured with hydrostatic propulsion and will react differently when the oil/the machine is cold. The City Ranger 2250 is optimized to run at an operating temperature mode.**
- **The drive pedal can be used as a brake function. The brake light comes on, if the drive pedal is released quickly.**
- **The stopping distance varies when the City Ranger 2250 is cold.**
- **A faint buzzing sound from the drive pedal can occur in some driving situations, and is quite normal.**



Warning

To protect the hydraulic system, it is important that the machine reaches operating temperature BEFORE the engine is operated at full power.



Warning

The City Ranger 2250 is articulated – it turns sharply, immediately. Turn the steering wheel carefully.

2.2 Start, drive and stop - continued

Turning off the City Ranger 2250

1. The PTO front and PTO rear contacts must be disengaged.
2. Pull the throttle back so the engine is idling.
3. Push the brake pedal down (Picture 1), lift the parking lock up (Picture 2) and release the brake pedal (See Section 1.6).
4. Turn off the City Ranger 2250 by turning the key back to the key-release position.

Operating with front attachments

Before the City Ranger 2250 can drive, the fitted attachments must be lifted clear of the ground.

Pull the joystick back until the attachment is lifted all the way. (Picture 3)

If longer transport distances are involved, the transport lock must be activated (See Section 1.6).

Fitting attachments on the front and back

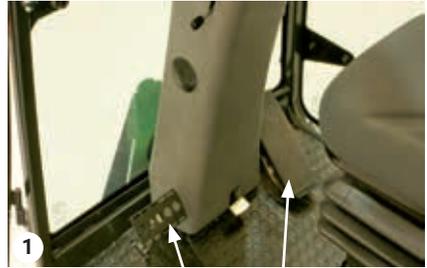
Read the operator's manual for the relevant attachment(s).

Connecting and disconnecting attachments

The engine must always be turned off before the attachment is connected/disconnected.

The quick-shift of attachments is not designed to be attached while the engine is running. Incorrect usage will destroy the couplings and will not be covered by the warranty.

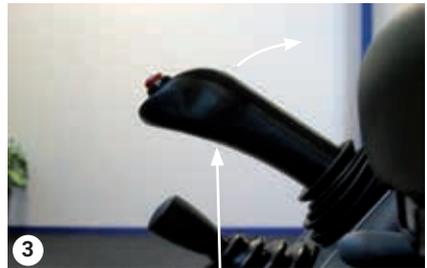
The couplings and the area around the couplings must be kept clean to avoid an accumulation of dirt. (See section 3.1)



Brake pedal Drive pedal



Transport lock Parking lock



Joystick

Operator's manual

2.3 Transporting the City Ranger 2250

To transport the vehicle, cross the restraint straps and attach them to the four transport securing rings of the vehicle. (Picture 1+2+3+4)



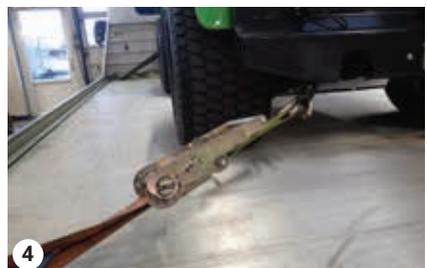
Anchoring at the front



Straps at the front



Anchoring at the rear



Straps at the rear

Service and maintenance

**Honest
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Service and maintenance

3.1 Daily maintenance

Daily maintenance of the City Ranger 2250 is simple, easy and very important. Three things are required: Cleaning the water cooler, oil cooler and air filter, and cleaning of the condenser where air conditioning is fitted (See Section 3.3).

Cleaning the A-frame

Keep the A-frame clean. (Picture 1)



Top of A-frame

Cleaning the hydraulics

A-frame. (Picture 2)

1. Turn the locking handle on the A-frame (the same as when connecting an attachment) – the snap couplings are now accessible.
2. Wipe the coupling clean with a soft cloth.
3. Turn the locking handle back.



Clean the snap couplings – A-frame

B-frame

1. Push the snap couplings' spring-loaded protective cover down.
2. Wipe the couplings clean with a soft cloth. (Picture 3)



Clean the snap couplings – B-frame

Cleaning water/oil cooler (and condenser, if fitted)

1. Open or remove the side screen if necessary. see section 1.17.
2. Using compressed air, clean the cooler fins of the water/oil cooler, and the condenser if fitted. (Picture 4)
3. The cooler fins can be washed with clean water.

NB! The cooler can be pulled out for cleaning



Attention

Do not use hard implements or high-pressure cleaners when rinsing the cooler as this may damage the fins.



Clean coolers using compressed air

Service and maintenance

3.1 Daily maintenance - continued

Air filter housing and air filter element

1. Remove the element. Blow it clean with compressed air.
2. Clean the air filter housing with a clean cloth. (Picture 1)



Warning

Always switch off the engine before washing the machine.



Air filter housing / Filter element

Service and maintenance

3.2 Lubrication

Cables and movable parts.

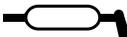
Lubricate with a little oil approx. every 15 hours.

Comply with the lubrication intervals. Lubricant: high performance grease K2C30 DIN 51825.

Grease nipples are located as follows:

Greasing the joints

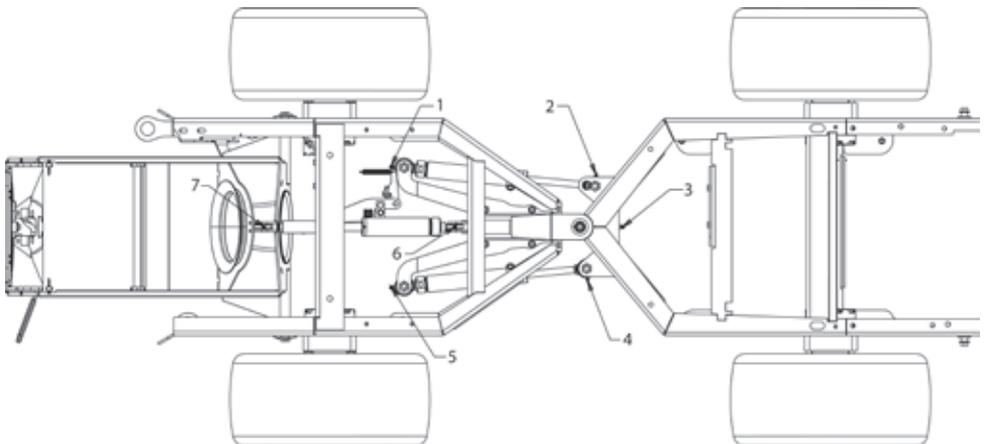
1. Dry away dirt and old grease from the joint.
2. Apply grease gun and pump until new grease appears from the joint.
3. Remove excess grease.
4. Write down the date and hours of operation for future reference.

 All grease points on the vehicle are marked with this sign:

Recommendation

A grease gun should be stored in near proximity of the machine in order to minimize the chance of lubrication being skipped.

Greasing point	Description	Acces
1 - 5	Steering cylinder	From underneath
2 - 4	Steering cylinder	From right / left side
3	Articulated joint	From underneath move protection shield
6 - 7	A-Frame cylinder	From underneath



Service and maintenance

3.3 City Ranger 2250 service and maintenance chart

Operation		Service schedule										
		Daily	Hours									
		50	500	1000	1500	2000	2500	3000	3500	4000	4500	
Cabin filter	Replace		*	*	*	*	*	*	*	*	*	
Engine oil	Check	*										
	Replace		*	*	*	*	*	*	*	*	*	
Hydraulic oil and filter	Check	*										
	Replace		*	*	*	*	*	*	*	*	*	
Air filter (1)	Check	*										
	Replace		*	*	*	*	*	*	*	*	*	
Cooling water (2)	Inspect	*	*	*	*	*	*	*	*	*	*	
Lubricating A/B-frame	Check		*	*	*	*	*	*	*	*	*	
Generator belt (3)	Check		*	*	*	*	*	*	*	*	*	
Generator belt (3)	Replace			*	*	*	*	*	*	*	*	
Hydraulic connections	Inspect	*										
Hydraulic hoses	Check		*	*	*	*	*	*	*	*	*	
Engine oil filter	Replace		*	*	*	*	*	*	*	*	*	
Transmission tooth belt	Replace			*	*	*	*	*	*	*	*	
Adjustment of engine valves	Check			*	*	*	*	*	*	*	*	
Tyre pressure	Check	*										
Fuel filter	Replace		*	*	*	*	*	*	*	*	*	
Fuel hoses (4)	Check		*	*	*	*	*	*	*	*	*	
Water cooler (5)	Check	*										
Water cooler (5)	Clean		*	*	*	*	*	*	*	*	*	
Oil cooler (6)	Check	*										
Oil cooler (6)	Clean		*	*	*	*	*	*	*	*	*	
Water cooler thermostat	Check		*	*	*	*	*	*	*	*	*	
Cooler hoses (7)	Check		*	*	*	*	*	*	*	*	*	
Overheating alarm	Check		*	*	*	*	*	*	*	*	*	
Throttle adjustment	Check		*	*	*	*	*	*	*	*	*	
Throttle cable adjustment	Check		*	*	*	*	*	*	*	*	*	
Brakes	Check	*										
Brakes	Adjust		*	*	*	*	*	*	*	*	*	
Wheel bolts tightening	Check		*	*	*	*	*	*	*	*	*	
Battery (8)	Check		*	*	*	*	*	*	*	*	*	
A/C Service												
A/C V-belt (3)	Check		*	*	*	*	*	*	*	*	*	
A/C V-belt (3)	Replace			*	*	*	*	*	*	*	*	
A/C dry filter (9)	Replace			*	*	*	*	*	*	*	*	
A/C drain hose	Clean		*	*	*	*	*	*	*	*	*	
A/C cooler	Check	*										
A/C cooler	Clean		*	*	*	*	*	*	*	*	*	
A/C evaporator/heater	Check	*										
A/C evaporator/heater	Clean		*	*	*	*	*	*	*	*	*	

1) If the machine is operated in a very hot or dusty environment, more frequent servicing may be necessary.

2) Coolant water should be changed after 1000 hours of operation or at least once a year.

3) Replace generator belt + A/C V-belt every year or after 1,000 hours.

4) Fuel hoses should be replaced once a year.

5) If the machine is operated in a very hot or dusty environment, more frequent servicing may be necessary.

6) If the machine is operated in a very hot or dusty environment, more frequent servicing may be necessary.

7) Replace hose clips and cooler hoses every year.

8) Battery should be replaced every two years.

9) Should be changed every three years.

Attention: All liquids (oil, coolant, hydraulic fluid, etc.) must be changed every year.

For engine service and maintenance, please refer to engine manufacturer's maintenance manual.

Service and maintenance

3.3 City Ranger 2250 service and maintenance chart

		Service schedule											
Operation		Daily	Hours										
			5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	
Cabin filter	Replace		•	•	•	•	•	•	•	•	•	•	•
Engine oil	Check	•											
	Replace		•	•	•	•	•	•	•	•	•	•	•
Hydraulic oil and filter	Check	•											
	Replace		•	•	•	•	•	•	•	•	•	•	•
Air filter (1)	Check	•											
	Replace		•	•	•	•	•	•	•	•	•	•	•
Cooling water (2)	Check	•	•	•	•	•	•	•	•	•	•	•	•
Lubricating A/B-frame	Check		•	•	•	•	•	•	•	•	•	•	•
Generator belt (3)	Check		•	•	•	•	•	•	•	•	•	•	•
Generator belt (3)	Replace		•	•	•	•	•	•	•	•	•	•	•
Hydraulic connections	Check	•											
Hydraulic hoses	Check		•	•	•	•	•	•	•	•	•	•	•
Engine oil filter	Replace		•	•	•	•	•	•	•	•	•	•	•
Transmission tooth belt	Replace		•	•	•	•	•	•	•	•	•	•	•
Adjustment of engine valve	Check		•	•	•	•	•	•	•	•	•	•	•
Tyre pressure	Check	•											
Fuel filter	Replace		•	•	•	•	•	•	•	•	•	•	•
Fuel hoses (4)	Check		•	•	•	•	•	•	•	•	•	•	•
Water cooler (5)	Check	•											
Water cooler (5)	Clean		•	•	•	•	•	•	•	•	•	•	•
Oil cooler (6)	Check	•											
Oil cooler (6)	Clean		•	•	•	•	•	•	•	•	•	•	•
Water cooler thermostat	Check		•	•	•	•	•	•	•	•	•	•	•
Cooler hoses (7)	Check		•	•	•	•	•	•	•	•	•	•	•
Overheating alarm	Check		•	•	•	•	•	•	•	•	•	•	•
Throttle adjustment	Check		•	•	•	•	•	•	•	•	•	•	•
Throttle cable adjustment	Check		•	•	•	•	•	•	•	•	•	•	•
Brakes	Check	•											
Brakes	Adjust		•	•	•	•	•	•	•	•	•	•	•
Wheel bolts tightening	Check		•	•	•	•	•	•	•	•	•	•	•
Battery (8)	Check		•	•	•	•	•	•	•	•	•	•	•
A/C Service													
A/C V-belt (3)	Check		•	•	•	•	•	•	•	•	•	•	•
A/C V-belt (3)	Replace		•	•	•	•	•	•	•	•	•	•	•
A/C dry filter (9)	Replace		•	•	•	•	•	•	•	•	•	•	•
A/C drain hose	Clean		•	•	•	•	•	•	•	•	•	•	•
A/C cooler	Check	•											
A/C cooler	Clean		•	•	•	•	•	•	•	•	•	•	•
A/C evaporator/heater	Check	•											
A/C evaporator/heater	Clean		•	•	•	•	•	•	•	•	•	•	•
Grease Nipples	Lubricate		•	•	•	•	•	•	•	•	•	•	•

- Basic service
- Full service
- One-off service

We recommend that service and maintenance procedures are carried out by authorised Egholm dealers.

3.4 Hydraulic system

Hydraulic oil

The hydraulic oil must be checked when it is cold. The oil must be visible in the sight glass. If the oil is not visible it should be topped-up. (Picture 1)



Attention

The area around the ventilation and oil inlet must be cleaned BEFORE the oil cover is removed, to prevent potentially damaging dirt and contamination entering the hydraulics.



Filling cap

Hydraulic oil – sight glass

Hydraulic oil top-up

1. Park the City Ranger 2250 on a level surface.
2. Switch the engine off.
3. Remove the filling cap and fill with Texaco Rando HDZ 68 oil or similar. Hydraulic oil must meet NAS and ISO standards.
4. Replace the filling cap.
5. Check that the oil fills half the sight glass when the oil is cold (maximum).

Tank filter/hydraulic oil filter

The City Ranger 2250 is fitted with a combined filter. The filter is replaced and filter housing cleaned during service.

Service and maintenance

3.5 Engine maintenance



Attention

Always switch off the engine when checking the oil and when changing the oil and the oil filter.

Engine oil check

1. Park the City Ranger 2250 on a level surface.
2. Check the oil level before the engine starts. (Picture 1)
3. Take the dipstick out, dry and put back.
4. Take the dipstick out again to read the oil level.
5. The oil level must be between the two lines on the dipstick. (Picture 4)
6. Add oil if the oil level is below the bottom line.
7. Always make sure the machine has enough oil.

Topping-up the engine oil /Filling with engine oil

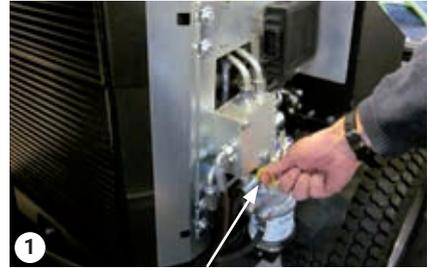
1. Remove filling cap on engine. (Picture 2)
2. Fill oil until the oil reaches the top line on the dipstick.
3. Wait approx. 5 minutes after adding the oil.
4. Then check the oil level again. It may take a little time for the oil to reach the oil pan.

Engine oil change

The engine oil should be changed after the first 50 hours of use. Changing the oil is easier when the engine is warm.

1. Remove the drain plug from the oil pan to release the waste oil. (Picture 3)
2. Remember to replace the drain plug!
3. Fill with new engine oil until the level reaches the top line on the dipstick.

Approx. 4.6 litres if the oil filter has been changed, otherwise approx. 4.3 litres.
The oil filter is replaced.



Check the oil level



Engine oil cap



Removing the bottom seal



Min.

Max.

Service and maintenance

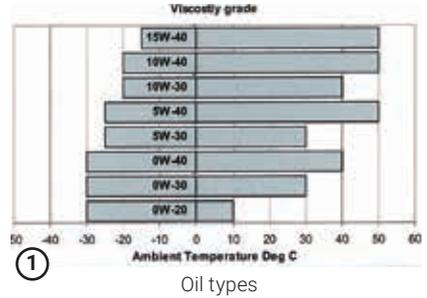
3.5 Engine maintenance - continued

Recommendations concerning oil

For best engine performance, we recommend approved Perkins engine oils. Other high-grade oils may be used if they have API CF, CF-4, CG-4 or CH-4 engine oil classification. Never use special additives.

NB

Lubricating oil viscosity must be suitable for the ambient temperature range for the climate in which the machine is to operate. (Picture 1)



Service and maintenance

3.6 Fuel



Attention

Always stop the engine before refuelling. Avoid flames and sources of ignition. Diesel oil is highly flammable.

Fuel

Use ONLY diesel oil that meets the following specifications: (Picture 1)

Cetane no. -at least 45.

Viscosity grade -2.0/4.5 centistokes at 40°C (104°F).

Density -0.835/0.855 kg/litre.

Sulphur -maximum 0.2% volume.

Distillation-85% at 350°C (662°F).

Important when refuelling

Keep the area free from dirt when filling – impurities can cause clogging in the injection pump. The engine must never run dry of diesel as this allows air to enter the fuel system.

Fuel tank

The fuel tank is an integrated part of the cab around the seat and joystick console.

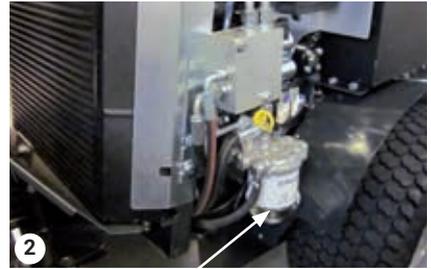


Warning

Never screw a bracket or other object onto the fuel tank.



Diesel cover



Fuel filter

3.6 Fuel - continued

Removing air from the fuel system/fuel pump

1. Open the bleed fixture on the fuel filter.
(Picture 1)
2. To activate the fuel pump, switch on the machine.
3. Close the bleed fixture.
4. Turn the ignition key until the engine starts.



Bleeding screw on the fuel filter



Attention

If the engine is very warm, do not attempt to bleed the fuel system. If fuel spills onto a very hot exhaust manifold, it may ignite.



Attention

Switch the engine off before checking/replacing fuel hoses. Damaged fuel hoses can cause fire.

Fuel hoses must be checked every time the machine is serviced

1. Check for loose hose clamps – lubricate with a little oil on the clamp screw and tighten.
2. If hoses and hose clamps are worn, they should be immediately replaced.
3. Remove air from the fuel system, if fuel hoses have been replaced.

Service and maintenance

3.7 Cooler

Removing the cooler cover: attention

Never remove the cover when the engine is hot, as hot water can escape and cause serious burns. Wait for at least ten minutes after the engine has been switched off and then remove the cooler cover.

Check the coolant daily

A) Remove the cooler cover.

B) Check that the tank is $\frac{3}{4}$ full and top-up if necessary. (Picture 1)



Attention

Always switch the engine off before topping-up with coolant!

Topping-up the coolant

A) Remove the cooler cover and fill the cooler and tank until approx. $\frac{3}{4}$ full. Max. capacity 7.6 l.

B) The coolant should consist of 50% pure water and 50% polyethylene glycol, or as prescribed by the manufacturer.

C) Carefully replace the cooler cover.

D) Start the City Ranger 2250 and run the machine until it is sufficiently warm.

E) Switch the engine off and add more coolant. (Picture 1)

Important – when filling coolant

1. After repair

or

2. After the expansion tank has been empty check the bleed valve on the water pump to ensure there is no air in the cooling system.



Cooler cover on cooler tank

Service and maintenance

3.7 Cooler - continued

Preventing overheating

If the warning light is ON, all attachments must be switched off and the engine must be run at half-throttle. The air-intake grill in the rear screen must be cleaned and the source of overheating located. Engine temperature must fall to the normal level within 30 seconds. If you are in doubt about the cause, contact your dealer.

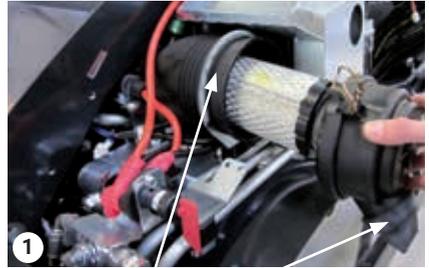
Cleaning the water cooler

Described in section 3.1.

3.8 Air filter

Cleaning the air filter

- A) When the City Ranger 2250 is operating in dirty and dusty conditions, open the vacuum valve every day to get rid of larger dirt and dust particles.
- B) Open the air filter housing.
- C) Remove the filter element.
- D) Wipe the air filter housing with a clean cloth.
- E) Carefully clean with compressed air from the inside.
- G) Put the air filter element back and close the filter housing. (Picture 1)



Air filter housing

Vacuum valve



Windscreen washer liquid cap

3.9 Windscreen washer liquid

During winter, check that the windscreen washer liquid has frost protection properties.

- A) The windscreen washer tank is in the cab, behind the driver's seat.
- B) Pull the driver's seat forward to access the windscreen washer tank.
- C) To add windscreen liquid, unscrew the cap, add windscreen liquid and screw the filling cap on again. (Picture 2)

Service and maintenance

3.10 Battery



Attention

Observe the following when removing a battery:

- A) The machine must be switched off. (Picture 2)
- B) Remove the cables from the battery terminals first.
- C) Avoid short-circuits across the battery terminals or inadvertently connecting/short-circuiting the battery + terminal to some other part of the machine (Short-circuiting will cause sparks).
- D) Avoid sparks, fires, and other sources of ignition. Do not smoke.
- E) When the battery is to be reconnected, connect the + terminal first, followed by the – terminal. Put on the terminal protection cover.



Attention

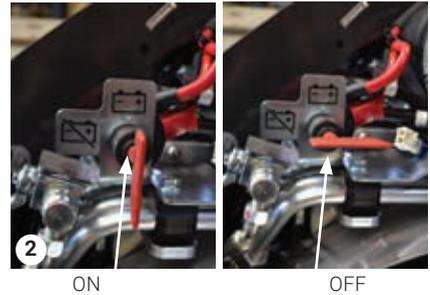
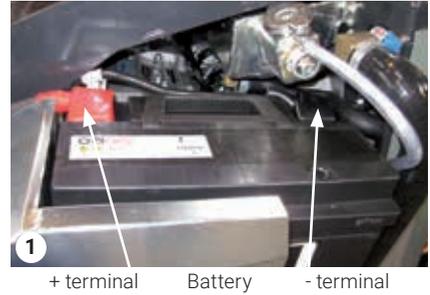
Sulphuric acid is hazardous and can cause loss of sight or serious burns and generates volatile gases.

Battery charging

The battery charger's terminals are connected to the battery so that the + terminal is connected to the battery's + terminal, and the - terminal is connected to the battery's – terminal.

Battery fluid level

The level should be checked once a year. Only distilled water may be added. (Picture 1)



3.11 Generator V-belt

Adjustment and tightening

A loose V-belt can result in insufficient charging of the battery.

A) Check the V-belt by pressing the middle section with a finger to see if there is approx. 7–9 mm slack (about 10 kg of pressure).

B) Check the V-belt for wear and tear.

Tightening

Loosen the two bolts that hold the generator, and then adjust/tighten them until the V-belt is at the required tension. Remember to tighten the bolts and nuts after adjusting!



Jacking point, rear wheel



Jacking point, front wheel

3.12 Removal of wheels

Before removing a wheel, the engine must be stopped and the parking brake activated.

Loosen the wheel nuts before the wheel is lifted off the ground.

Jacking point:

- for the rear wheel. (Picture 1)
- for the front wheel. (Picture 2)

When fitting the wheels, tighten the wheel nuts to 100Nm after the machine is lowered to the ground.



Attention

After 20 hours of use, tighten the wheel bolts again to 100 Nm. Wheel bolts should not be lubricated.



Attention

Only use tier dimension and tire pressure as specified in section 1.4 page 10.



Attention

Changing tires on rims may only be carried out at an authorized workshop.

Service and maintenance

3.13 Cabin filter

Fresh air to the cabin pass through an air filter. The air filter is located behind the grate at the rear of the cab. (Picture 1)

To replace the filter.

- A) Remove the grate. (Picture 1)
- B) Remove the foam plate.
- C) Unscrew the nuts and remove the steel plate. (Picture 2)
- D) Remove the filter element. (Picture 3)

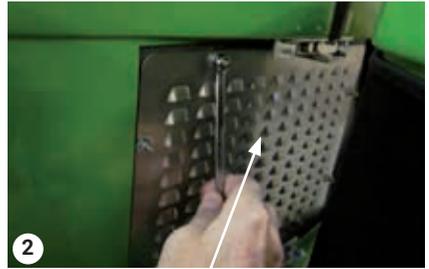
The fitting of the new filter is carried out in reverse order:

- filter element.
- steel plate.
- foam plate.
- grate.

(Picture 4)



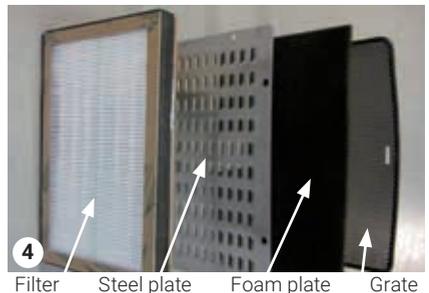
Cabin filter behind grate



Steel plate



Filter element



Filter Steel plate Foam plate Grate

3.14 In case of failure

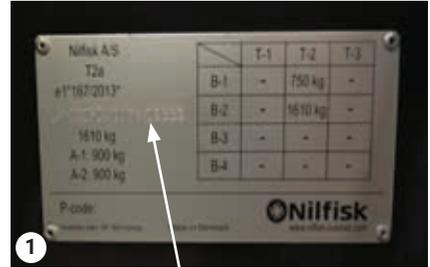


Attention

Since the City Ranger 2250 is a vehicle with a hydrostatic transmission, it must not be towed more than a few metres, enough to move it out of traffic.

When working on the vehicle, stop the engine, remove the ignition key and pull the parking brake. It is also advisable to chock the wheels.

Call your after-sales service and provide the serial number of your City Ranger 2250. You can read it on the information plate of your vehicle. (Picture 1)



1

Serial number



2

Information plate location

3.15 Storage

If long term storage is needed make sure to:

- Clean the machine.
- Drain fuel tank.
- Turn main switch to off position.
- Always store in a dry environment.
- Make sure normal maintenance has been carried out prior to storage.

After storage

- Fill fuel tank with fresh diesel.
- Turn on main switch.
- Inspect the machine for damage or other issues.
- Check and test brakes.
- Air pressure in tires.

Conditions

**Honest
Machines**

4.1 Warranty

The warranty period for the materials and manufacture of this City Ranger 2250 is 12 months from the date of purchase. In case of errors or defects on the machine within the warranty period, Egholm will carry out the necessary repairs without charge for materials and working hours in accordance with the terms and conditions listed below.

The scope of the warranty

1. The Egholm warranty is only valid on presentation of the original receipt supplied with model description, serial number and date of purchase.
2. Regular checks, adjustments, services and technical alterations are not covered by the warranty.
3. All inquiries concerning the warranty are to be addressed to the distributor from whom the machine was purchased.
4. This warranty does not cover faults and defects which cannot be traced back to defects in material or production errors.
5. This warranty is valid for persons who have legally acquired the machine within the warranty period.
6. In the event of failure to perform and substantiate service in accordance with the applicable instructions, Egholm reserves the right to reject any claim made within the warranty period.
7. Egholm reserves the right to make improvements and design-related alterations to the machine without being obliged to modify previously delivered models in relation hereto.

The warranty does not cover

- Wear and tear, accidents, damage to the equipment caused by operating errors, changes to the construction of the machine or use of non-Egholm spare parts or attachments.
- Machines with illegible serial numbers.
- Damage caused by force majeure such as lightning, flood, fire, war, civil disturbance, etc. or other causes over which Egholm has no control.

Conditions

4.2 Complaints

All inquiries regarding the machine should be made at the distributor from whom the machine was purchased. This applies to inquiries concerning normal use, service, maintenance and spare parts as well as any complaints.

We wish you many years of safe and satisfactory use of your machine.

Best regards
Egholm A/S

4.3 Disposal

When, many years from now, your City Ranger 2250 has reached the end of its working life, it should be disposed of in a responsible manner that conforms with relevant disposal regulations.

1. Used hydraulic oil, engine oil, diesel oil, coolant and AC coolant are to be delivered at an approved waste disposal facility or site.
2. Remove the plastic and rubber parts and dispose of them in accordance with the applicable environmental legislation.
3. After the parts mentioned have been removed, the machine is ready to be handed over to an approved scrap merchant.

Wearing parts

**Honest
Machines**

Wearing parts

5.1 Wearing parts - City Ranger 2250



E50000048 Tyre and wheel 2250



E90501650 Filter kit



E01006500 Air filter 2200/2250



E01020020 Oil filter 2250



E01002000 Hydraulic filter



E01020010 Fuel filter 2250



E01008330 Cab filter 2250



E50003762 AC-belt 2250



E01110280 Drying filter



E50002523 Generator belt 2250

Wearing parts

5.1 Wearing parts - City Ranger 2250



E05001140 Lightbulb, main light - 287



E05001180 Bulb front work light



E05001040 Bulb, parking light



E05001010 Bulb for front turn signals



E04501320 Hydraulic couplings
A+B frame, 1/4"



E04501330 Hydraulic couplings
A+B frame, 3/8"



E04501200 Hydraulic couplings
rear tap, male



E04501230 Hydraulic couplings
rear tap, female

Notes

Notes

Honest Work.

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