Operator's Manual

Track excavators

75Z3/8003

Machine models	**75Z3/8003**
Edition	**3.0**
Language	**EN**
Item no.	**1000132136**

WACKER NEUSON

1 Introduction

1.1 Important information on this Operator's Manual

Please store the Operator's Manual in the storage box at the rear of the seat.

This Operator's Manual contains important information on how to work safely, correctly and economically with the machine. Therefore, it aims not only at new operators, but it also serves as a reference for experienced ones. It helps to avoid dangerous situations and reduce repair costs and downtimes. Furthermore, the reliability and the service life of the machine will be increased by following the instructions in the Operator's Manual. This is why **the Operator's Manual must always be kept at hand in the machine.**

Your own safety, as well as the safety of others, depends to a great extent on how the machine is moved and operated. Therefore, carefully read and understand this Operator's Manual prior to the first drive. This Operator's Manual will help to familiarise yourself more easily with the machine, thereby enabling you to use it more safely and efficiently.

Prior to the first drive, carefully read chapter “Safety Instructions” as well, in order to be prepared for possible dangerous situations, as it will be too late for it during operation. As a rule, keep the following in mind:

Careful and prudent working is the best way to avoid accidents!

Operational safety and readiness of the machine do not only depend on your skill, but also on maintenance and servicing of the machine. This is why regular maintenance and service work is absolutely necessary.
Extensive maintenance and repair work must always be carried out by an expert with appropriate training. Insist on using original spare parts when carrying out maintenance and repair work. This ensures operational safety and readiness of your machine, and maintains its value.

- Special equipment and superstructures are not described in this Operator's Manual.
- We reserve the right to modify and improve the machine as required by technical
- progress without modifying the Operator's Manual.
- Modifying Wacker Neuson products and fitting them with additional equipment and attachments not included in our delivery program requires Wacker Neuson's written authorisation, otherwise warranty and product liability for possible damage caused by these modifications shall not be applicable.
- Subject to modifications and printing errors.

Your Wacker Neuson dealer will be pleased to answer any further questions regarding the machine or the Operator's Manual.

Abbreviations/symbols

- This symbol stands for a list
  - Subdivision within lists or an activity. Follow the steps in the recommended sequence

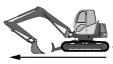
☞ *This symbol requires you to carry out the activity described*

➥ Description of the effects or results of an activity

n. s. = not shown

“Opt” = option

Stated whenever controls or other components of the machine are installed as an option.


This symbol shows the driving direction – for better orientation in figures and graphics.

1.9 Other signs and symbols

The following states signs and symbols which are not unequivocally comprehensible. They do not contain explanatory text and are not explained in the following chapters.

...on the outside of the machine

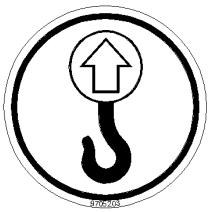


Fig. 7: Eye hook label

Meaning

Machine is raised by the eye hooks

– *see chapter 3.24 Loading and transporting the machine* on page 3-44

Location

On either side of the stabiliser blade, and on either side of the boom

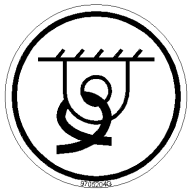


Fig. 8: Label for points used for tying down the machine

Meaning

Points for tying down the machine.

The mounting points are used for tying down the machine during loading and transport.

– *see chapter 3.25 Tying down the machine* on page 3-45

Location

On either side of the stabiliser blade, and on either side of the undercarriage

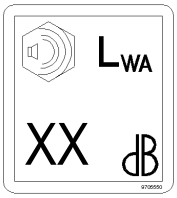


Fig. 9: Noise level label

Meaning

Noise levels produced by the machine.

L_{WA} = sound power level

Other information – *see chapter 6.10 Noise levels* on page 6-4

Location

Next to the cab door

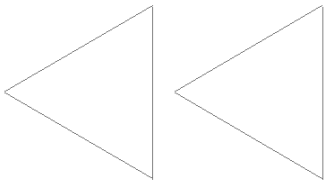


Fig. 10: Direction indicator

Meaning

This label shows the forwards driving direction.

Location

On either side of the undercarriage

Fig. 11: Danger label

Meaning

General indication of danger.

This label warns persons standing or working near the excavator of an existing danger within the area of increased danger around the machine.

Location

On either side of the boom

ce.ai

Fig. 12: CE mark

Meaning

The CE mark means that the machine meets the requirements of the Machine Directive and that the conformity procedure has been carried out. The machine meets all the health and safety requirements of the Machine Directive.

Location

On the type label

Applications with lifting gear

Lifting gear applications are procedures involving raising, transporting and lowering loads with the help of slings and load-securing devices (e.g. ropes, chains).

Applications with lifting gear are basically not allowed. However, the following conditions must be fulfilled!

Machines in lifting gear applications with a maximum authorised lifting capacity of over 1000 kg (2205 lbs.) or an overturning moment of over 40,000 Nm (29,500 ft. lbs.) must include the following equipment:

- Acoustic or optical warning device – *see chapter 3.17 Safe load indicator (option)* on page 3-83
- Hose burst valve – *see chapter "Hose burst valve" safety feature (option)* on page 3-77

Lifting gear applications may be performed with the machine only if the following safety criteria are met:

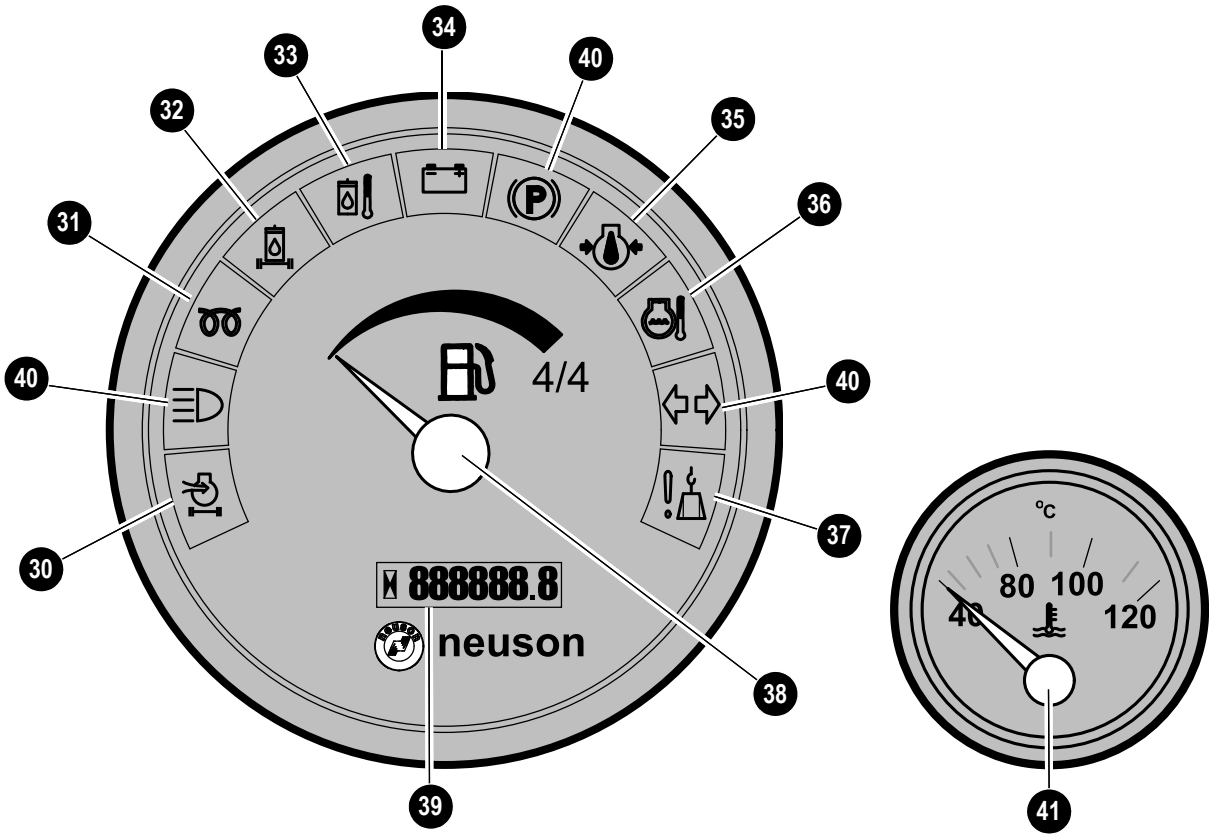
- Proper equipment for slinging and securing the load (load hooks, ropes, chains) must be available.
- The help of an accompanying person is necessary for securing and detaching the load.
- The lift capacity table must be observed in order ensure machine stability before raising a load – *see chapter 6 Specifications* on page 6-1.

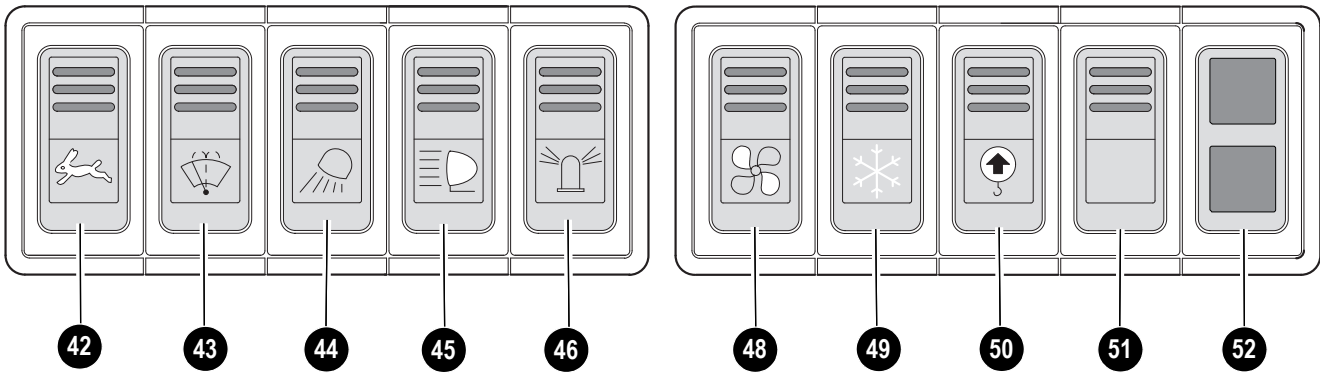
- The load must be secured so as to prevent it from falling or slipping.
- Staying under suspended loads, in the danger area or under the machine's attachment is forbidden.
- The machine operator must not raise loads over persons.
- Fasten the lifting gear to the work equipment or other parts of the machine so as to avoid unhooking the sling unintentionally.
- Select the mounting position of the lifting gear ensuring the sling is not deflected by other parts.
- Persons guiding the load or securing it must stay in visual contact with the machine operator! Should this not be possible, ask another person to guide.
- Do not use any lifting gear (ropes, chains) which is damaged or not sufficiently dimensioned.
- Fasten lifting gear avoiding danger (rotating parts, crushing or shearing) for the person securing the load. Always wear protective gloves when working with lifting gear.

- The machine operator must guide the load the nearest possible to the ground and avoid any oscillating or swinging movements!
- The machine may be moved with a raised load only if the path of the machine is as level as possible.
- The persons attaching or securing loads may approach the boom from the side only, and only after the machine operator has given his permission. The machine operator may give his permission only after the machine is at a standstill and the work attachment no longer moves!
- The machine operator may not leave his seat as long as the load is raised.
- Get informed on and follow the legal regulations of your country.

3.2 75Z3/8003 control elements

Up to serial number AH00610





Before starting the engine

☞ *Adjust seat position and rearview mirror – see chapter 3.12* ***Seat adjustment*** *on page 3-30*

Notice!

All controls must be within easy reach. You must be able to move the drive levers to their limit positions!

☞ *Fasten your seat belt – see chapter 3.13* ***Seat belt*** *on page 3-32*

☞ *Fold the left-hand side control lever base down*

☞ *Check whether all levers and pedals are in neutral position*

☞ *Move the throttle to the centre position (between minimum and maximum) if the engine is cold*

Starting the engine: general

- The starter cannot be actuated if the engine is already running (start repeat interlock)
- Do not run the starter for more than 10 seconds
- Wait about 1 minute so the battery can recover before trying again.

3.8 Light system

Working lights

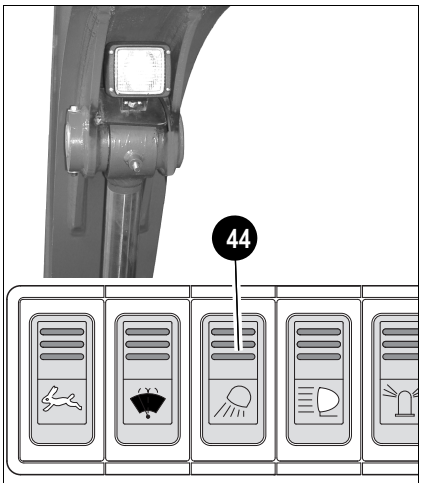


Fig. 41: Working lights

The switch panel for the light system is located on the instrument panel.

Boom light		
ON	☞ *Press switch **44** down*	➥ Telltale in switch ***44*** comes on
OFF	☞ *Press switch **44*** up	➥ Telltale in switch ***44*** goes out

Roof lights (option)

Danger!

The working lights can dazzle motorists on public roads –

☞ *Do not switch on the working lights when driving on public roads. When operating the machine, only switch the working lights on when no-one can be dazzled by it!*

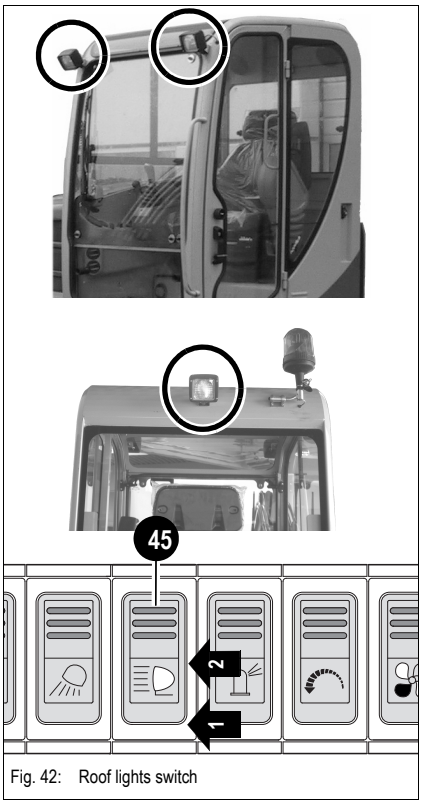


Fig. 42: Roof lights switch

Roof lights		
ON	☞ *Press switch **45** to the **1st** position* ☞ *Press switch **45** to the **2nd** position*	➥ Telltale in switch comes on
OFF	☞ *Press switch **45*** up	➥ Telltale in switch goes out

3.16 Door

Danger!

Close/secure the door and the side window when driving and working with the machine –

Danger of accidents!

☞ *Close the door before moving the machine*

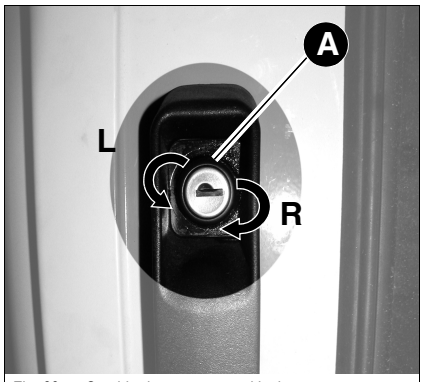


Fig. 60: Outside door opener and lock

Opening the door from the outside:

☞ *Press door lock **A***

Locking the door:

☞ *Turn the key in door lock **A** to the **left** (**L**)*

☞ The door is locked

Unlocking the door:

☞ *Turn the key in door lock **A** to the **right** (**R**)*

☞ The door is unlocked

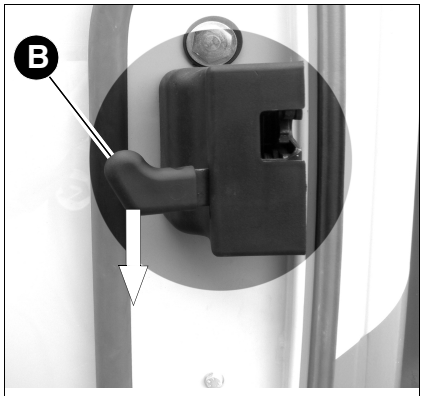


Fig. 61: Inside door opener (left/right)

Opening the door from the inside:

☞ *Press the lever on the inside left on door lock **B** down*

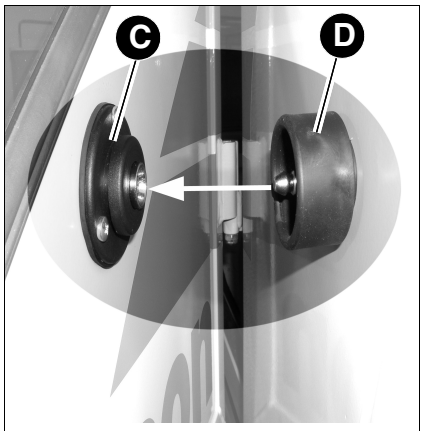


Fig. 62: Door arrester

Securing an open door:

☞ *Press the door against bracket **C** of arrester **D** with an audible click*

3.25 Tying down the machine

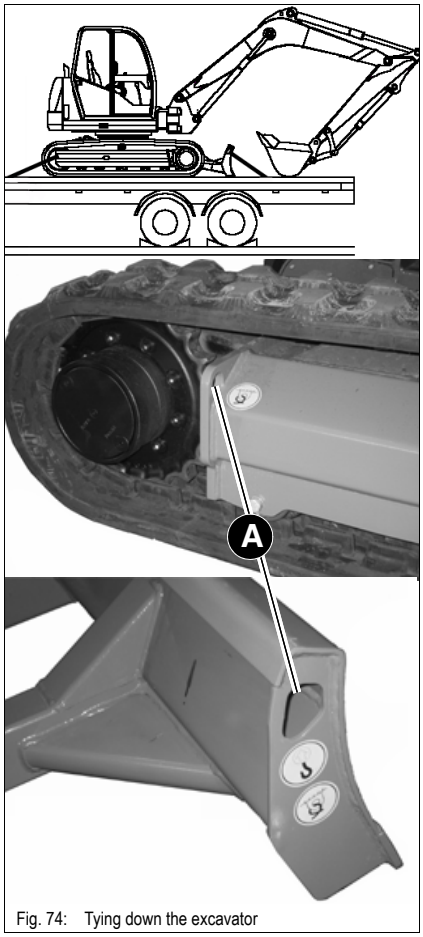


Fig. 74: Tying down the excavator

Danger!

The machine must be loaded and transported properly –

Danger of accidents!

☞ *It is essential that you read the safety instructions at the beginning of this chapter and follow any other safety instructions relevant in your country!*

- Make sure the authorised maximum height is not exceeded
- Secure the tracks of the excavator at the front, rear and at the sides
- Lower the stabiliser blade and the boom
- Firmly tie down the excavator at the eye hooks **A** onto the platform, with belts or chains of adequate size
- Before transporting the machine through heavy rain:
  close the outlet of the exhaust silencer with a simple cap or suitable adhesive tape
- Make sure the driver of the transport vehicle knows the overall height, width and weight of his vehicle (incl. excavator) before departure, as well as the legal transport regulations of the country or countries where transport is to take place!

Adjusting control response:

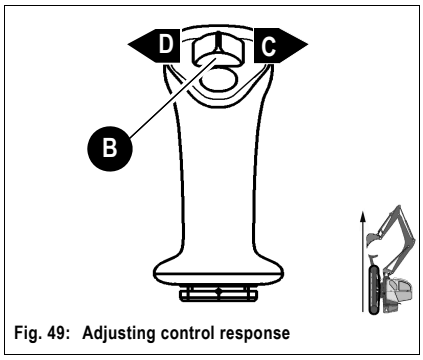


Fig. 49: Adjusting control response

Characteristic curve 1 (slow movements):

☞ *Switch off ignition*

☞ *Then move slide switch **B*** to the left ***D***

☞ *Hold slide switch **B*** to the left ***D*** and switch on ignition at the same time

☞ *Wait 2 seconds and then release slide switch **B***

Status indicator **52** acknowledges by flashing once

Characteristic curve 2 (fast movements – maximum throughput):

☞ *Switch off ignition*

☞ *Then move slide switch **B*** to the right ***C***

☞ *Hold slide switch **B*** to the right ***C*** *and switch on ignition at the same time*

☞ *Wait 2 seconds and then release slide switch **B***

➥ Status indicator **52** acknowledges by flashing twice

Characteristic curves – status indicator

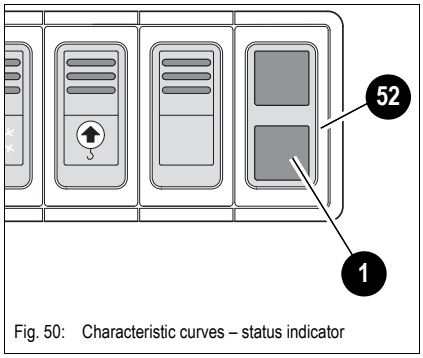


Fig. 50: Characteristic curves – status indicator

Displays the characteristic curve that has been selected for the control valve.

Characteristic curve 1 (slow movements):

*Telltale **1** in status indicator **52** flashes once after switching on ignition*

Characteristic curve 2 (fast movements – maximum throughput):

☞ *Telltale **1** in status indicator **52** flashes twice after switching on ignition*

Notice!

The characteristic curve that has been set last is active after the machine is started again.

Mounting a bucket

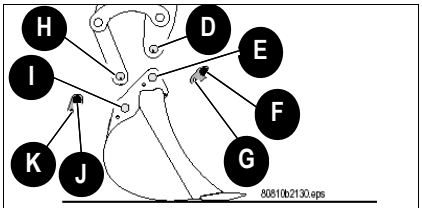


Fig. 72: Mounting a bucket

☞ *Proceed as follows:*

- Lower the bucket to the ground with its flat side facing down
- Grease the joints and the pins before inserting them
- Start the engine
- Straighten the stick so that bores **D** and **E** are flush
- Insert greased pin **F**
- Tighten lock screw **G**
- Actuate the stick ram until bores **H** and **I** are flush
- Insert the greased pin **J**
- Lock linch pin **K**

Quickhitch (option)

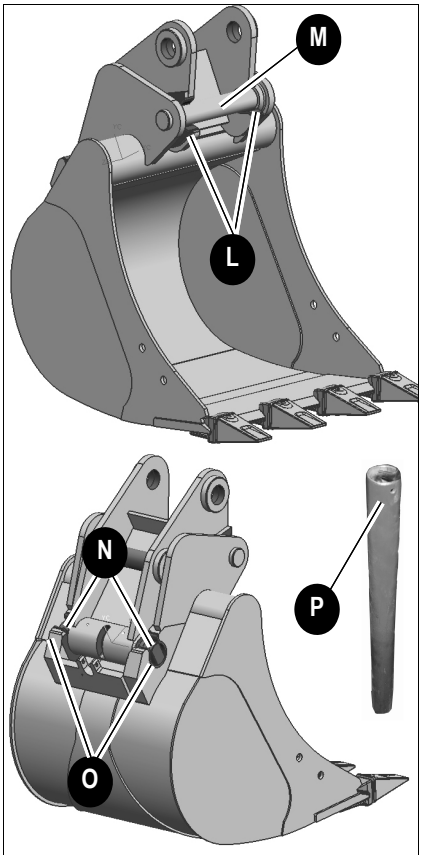


Fig. 73: Bucket with quickhitch

Danger!

The attachment must always be safely locked onto the quickhitch –

Danger of accidents!

☞ *Before starting work, make sure the attachment is securely locked onto the quickhitch by means of the lock mechanism. You must be able to see the lock on either side of the mounting bore of the attachment.*

☞ *Re-equip as follows:*

- Approach the machine to the attachment
- Hitch coupling bar **M** onto coupling claws **L** of the quickhitch to pick up the bucket
- Engage lock mechanism **N** in mounting bores **O**
- Place the bucket on level ground

Grab couplings

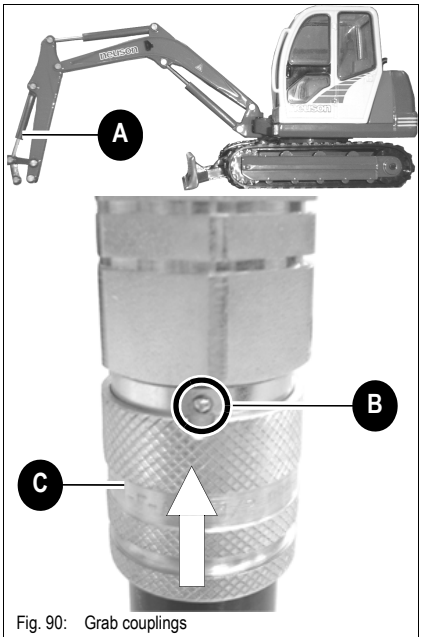


Fig. 90: Grab couplings

Connect and disconnect the grab couplings as follows:

Removing the coupling:

☞ *Park the machine on firm and level ground*

☞ *Extend stick ram **A** halfway through*

☞ *Stop the engine*

☞ *Release the pressure on stick ram A by moving the right-hand side control lever to the left and right*

☞ *Fold the control lever base up*

☞ *Turn lock sleeve **C** towards lock ball **B***

☞ *Pull lock sleeve **C** upwards*

☞ The coupling opens

Connecting the coupling:

☞ *Connect the coupling onto the stick ram connection making sure it is straight*

☞ Wait until you hear a hissing sound of the connection

☞ Fully connect the coupling on the connection

☞ *Turn back the lock again (away from lock ball **B**)*

4 Troubleshooting

The information given in this chapter is provided for maintenance staff, for fast and reliable detection of malfunctions and their appropriate repair.

Repairs must be carried out by authorised staff.

4.1 Engine trouble

Problem	Possible causes	See
Engine does not start or is not easy to start	Wrong SAE grade of engine lubrication oil	5-32
	Fuel grade does not comply with specifications	5-32
	Defective or flat battery	5-27
	Loose or oxidised cable connections in starter circuit	
	Defective starter, or pinion does not engage	
	Wrong valve clearance	
	Defective fuel injector	
Engine starts, but does not run smoothly or faultless	Fuel grade does not comply with specifications	5-32
	Wrong valve clearance	
	Injection line leaks	
	Defective fuel injector	
Engine overheats. Temperature warning system responds	Oil level too low	5-6
	Oil level too high	5-6
	Dirty air filter	5-11
	Dirty oil radiator fins	
	Defective fan, torn or loose V-belt	5-13
	Resistance in cooling system too high, flow capacity too low	
	Defective fuel injector	
Insufficient engine output	Oil level too high	5-6
	Fuel grade does not comply with specifications	5-4
	Dirty air filter	5-11
	Defective air filter maintenance switch or gauge	5-11
	Wrong valve clearance	
	Injection line leaks	
	Defective fuel injector	
Engine does not run on all cylinders	Injection line leaks	
	Defective fuel injector	
Insufficient or no engine oil pressure	Oil level too low	5-6
	Machine inclination too high (max. 15°)	
	Wrong SAE grade of engine lubrication oil	5-32

Bleeding the fuel system

Danger!

If the fuel, as it drains, comes into contact with hot engine parts or the exhaust system, there is an increased

Danger of burns!

☞ *Never bleed the fuel system if the engine is hot!*

Bleed the fuel system in the following cases:

- After removing and fitting the fuel filter, prefilter or the fuel lines back on again
- After running the fuel tank empty
- After running the engine again, after it has been out of service for a longer period of time

☞ *Bleed the fuel system as follows:*

- Fill the fuel tank
- Turn the ignition key to the first position
- Wait about 5 minutes while the fuel system bleeds itself automatically
- Start the engine

If the engine runs smoothly for a while and then stops, or if it does not run smoothly:

- Stop the engine
- Bleed the fuel system again as described above
- Have this checked by authorised staff if necessary

Fuel prefilter with water separator

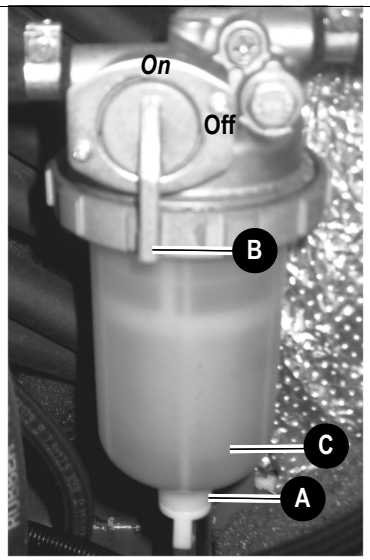


Fig. 113: Fuel prefilter

Check the fuel prefilter as follows:

☞ *If the red indicator ring rises to position **C***

☞ *Unscrew thread **A***

➥ The water drains

➥ Wait until the indicator ring returns to the bottom of the water separator

☞ *Screw thread **A** back on again*

Interrupt fuel supply as follows:

☞ *Turn ball-type cock **B** to the **OFF** mark*

➥ Fuel supply is interrupted

☞ *Turn ball-type cock **B** to the **ON** mark*

➥ Fuel supply is open again

Environment!

Thread **A** is fitted with a hose. Collect the water as it drains with a suitable container and dispose of it in an environmentally friendly manner.

Checking the V-belt of the air conditioning system

Caution!

Excessive or insufficient tension of the V-belt can cause damage to the V-belt or to the compressor of the air conditioning system.

☞ *Always make sure the V-belt has the correct tension*

☞ *Replace V-belts with damage, cracks, cuts etc.*

☞ *Avoid contact of oil, grease or similar substances with the V-belt*

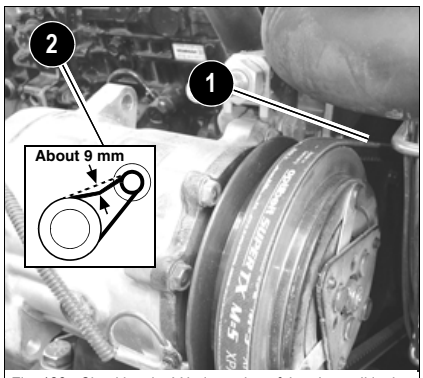


Fig. 123: Checking the V-belt tension of the air conditioning

Check as follows:

☞ *Stop the engine*

☞ *Fold the control lever base up*

☞ *Remove the key and carry it with you*

☞ *Disconnect the battery or the battery master switch*

☞ *Let the engine cool down*

☞ *Open the engine cover*

☞ *Carefully check V-belt* **1** *for damage, cracks or cuts*

☞ *Replace the V-belt if it touches the base of the V-belt groove or the discs of the pulley*

If the V-belt is damaged:

☞ *Have the V-belt replaced by authorised staff*

☞ *Press with your thumb about 100 N to check the deflection of the V-belt. A new V-belt should have a deflection of 7 to 9 mm, a used V-belt (after about 5 minutes running time) should have a deflection of 9 to 11 mm* **2**

☞ *Retighten the V-belt if necessary*

Tightening the V-belt of the air conditioning system

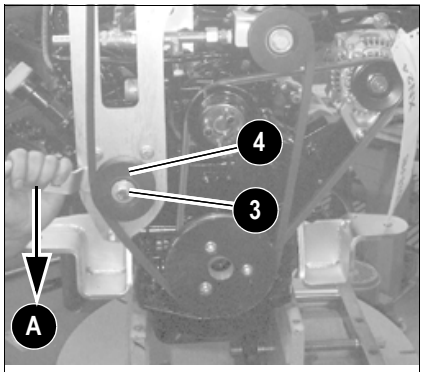


Fig. 124: Retightening the V-belt of the air conditioning sys-

- Retighten as follows:

☞ Stop the engine

☞ Fold the control lever base up

☞ Remove the key and carry it with you

☞ Disconnect the battery or the battery master switch

☞ Let the engine cool down

☞ Open the engine cover

☞ Slacken fastening screw **3** of spacer washer **4**

☞ Press the belt tensioner in the direction of arrow **A** until reaching the correct V-belt tension (fig. 124)

☞ Keep the belt tensioner in this position, and at the same time retighten fastening screw **3**

☞ Check V-belt tension again and adjust it if necessary

☞ Connect the battery or the battery master switch

☞ Close the engine cover

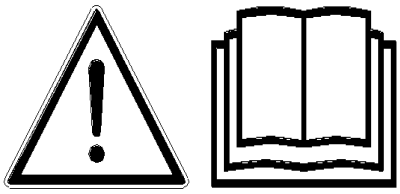
Maintenance of attachments

Notice!

Correct maintenance and service is absolutely necessary for smooth and continuous operation, and for an increased service life of the attachments. Please observe the lubrication and maintenance instructions in the Operator's Manuals of the attachments

5.11 Electrical system

Specific safety instructions



- The battery contains sulphuric acid! This acid must not be allowed to come into contact with the skin, the eyes, clothing or the machine.

  Therefore when recharging or working near the battery:

  ☞ Always wear goggles and protective clothing with long sleeves

If acid is spilt:

  ☞ Thoroughly rinse all affected surfaces immediately with plenty of water

  ☞ Thoroughly wash any part of the body touched by the acid immediately with plenty of water and seek medical attention at once!

- Especially when charging batteries, as well as during normal operation of batteries, an oxyhydrogen mixture is formed in the battery cells – danger of explosion!
- Do not attempt to jump-start the machine if the battery is frozen or if the acid level is low. The battery can rupture or explode!

  ☞ Replace the battery immediately

- Avoid naked flames and sparks and do not smoke in the vicinity of open battery cells – otherwise the gas produced during normal battery operation can ignite!
- Use only 12 V power sources. Higher voltages will damage the electric components
- When connecting the battery leads, make sure the poles +/– are not inverted, otherwise sensitive electric components will be damaged
- Do not interrupt voltage-carrying circuits at the battery terminals because of the danger of sparking!
- Never place tools or other conductive articles on the battery – danger of short circuit!
- Disconnect the negative (**–**) battery terminal from the battery before starting repair work on the electrical system
- Dispose of used batteries properly

Service and maintenance work at regular intervals

Before driving the machine

☞ *Check every time before driving the machine:*

- Is the light system OK?
- Is the signalling and warning system OK?

6.8 Fuse box on instrument panel up to serial nos. AD07209 (75Z3), AD07187 (8003)

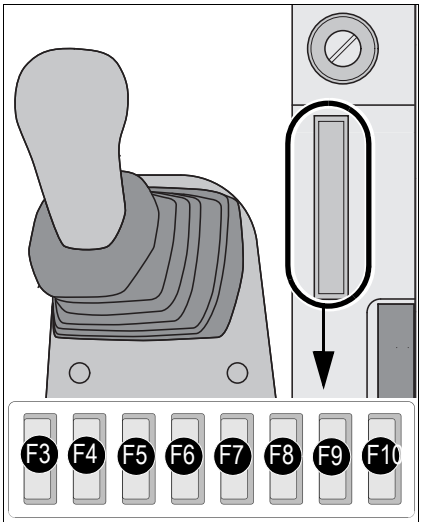


Fig. 138: Fuse box

Fuse no.	Rated current (A)	Protected circuit
F3	10 A	– Indicators, cutoff solenoid, relays
F4	10 A	– Boom light
F5	15 A	– Roof lights
F6	10 A	– Valves, horn
F7	15 A	– Heating, air conditioning
F8	10 A	– Wiper, interior light
F9	10 A	– Rotating beacon, radio
F10	15 A	– Socket, cigarette lighter

6.9 Main fuse box with relays up to serial nos. AD07209 (75Z3)/AD07187 (8003)

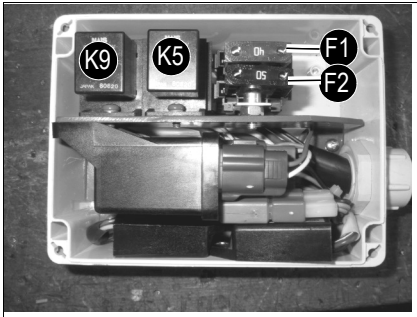


Fig. 139: Relay box under the cab

Fuse no.	Rated current (A)	Protected circuit
F1	40 A	– Start, preheat, cutoff solenoid
F2	50 A	– Fuel-filling pump, main fuse, ignition lock

Relay no.	Protected circuit
K 9	– Cutoff solenoid
K 5	– Preheating

6.18 Lift capacity table 8003

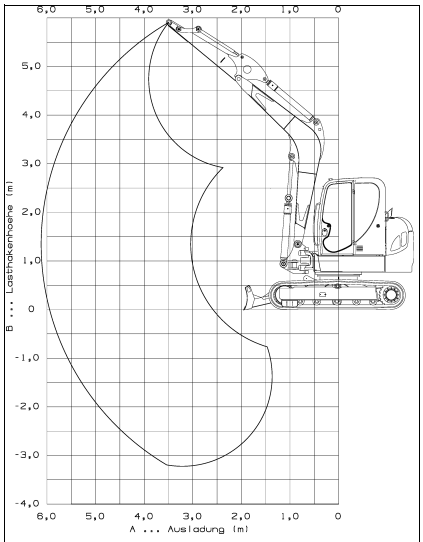
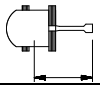


Fig. 147: Lift capacity table (model 8003)

A / B			5,0m		4,0m		3,0m		2,0m	
5,0m	2000*	1510			1955*	1950				
4,0m	1920*	1165	1915*	1330	2010*	1930				
3,0m	1895*	985	2020*	1300	2315*	1845	2925*	2920		
2,0m	1905*	920	2205*	1245	2750*	1730	4070*	2620		
1,0m	1930*	890	2380*	1185	3120*	1620	4770*	2400		
0,0m	1960*	910	2455*	1145	3260*	1550	4750*	2335		
-1,0m	1975*	990	2345*	1130	3135*	1530	4375*	2330	6305*	4830
-2,0m	1940*	1180			2690*	1545	3675*	2365	5230*	4900
-3,0m	1700*	1700*					2385*	2385*		

max	Admissible load on extended stick
A	Reach from live ring centre
B	Load hook height
*	Lift capacity limited by hydraulics

All table indications in kg and horizontal position on firm ground without bucket.

	With the stabiliser blade in driving direction
	Without the stabiliser blade, 90° to driving direction

If equipped with a bucket or other attachments, lift capacity or tilt load is reduced by bucket or attachment dead weight.

Calculation basis: according to ISO 10567

The compact excavator's lift capacity is restricted by the settings of the pressure limiting valves and the hydraulic system's stabilising features.

Neither 75 % of the static tilt load nor 87 % of the hydraulic lift capacity is exceeded.