Operator’s manual

Tracked excavator

803
803 dualpower

Machine model	**E08-01**
Edition	**5.0**
Document order number	**1000161857**
Language	**en**

Documentation	Language	Order no.
Operator’s manual	en	1000161857

Legend	
Original Operator’s Manual	x
Issue	5.0
Date	04/2022
Document	BA 803 en*

Wacker Neuson Linz GmbH keep abreast of the latest technical developments and constantly improve their products. For this reason, we may from time to time need to make changes to figures and descriptions in this documentation that do not reflect products that have already been delivered and that will not be implemented on these machines.

Technical data, dimensions and weights are only given as an indication. Non-metric values are rounded off. Responsibility for errors or omissions not accepted.

The cover features the vehicle with possible optional equipment. Not all options in this operator's manual must be available in every destination country.

Photographs and graphics are symbolic representations and may differ from the actual products.

The Operator’s Manual and any amendments to it must always be available at the location where the vehicle is operated. Possible amendments are included at the end of the Operator’s Manual.

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WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

WARNING

Cancer and Reproductive Harm -

www.P65Warnings.ca.gov.

WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING.

Notes:

Table of contents

1 Introduction

1.1 Information on this Operator's Manual

The Operator's Manual is stored in the storage bin at the rear of the seat.

This operator's manual contains important information on how to work safely, correctly and economically with the vehicle. Therefore, it aims not only at new personnel, but it also serves as a reference for experienced personnel.

Furthermore, the reliability and the service life of the vehicle will be increased by following the instructions in the Operator's Manual. This is why the Operator's Manual must be kept at hand in the vehicle.

The operator must carefully read and understand the Operator's Manual before starting up, servicing or repairing the vehicle.

This Operator's Manual will help to familiarize yourself more easily with the vehicle, thereby enabling you to use it more safely and efficiently.

This Operator's Manual does not include special superstructures.

Please contact your dealer if you require more information on the vehicle or the Operator's Manual.

Abbreviations/symbols

- Identifies a list
  - Subdivision within lists or an activity. Follow the steps in the recommended order

☞ *Identifies an activity*

➥ Description of the effects or results of an activity

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

1.2 Glossary

Not all glossary entries must apply to the vehicles described in the operating instructions.

Attachment	All exchangeable equipment (for example buckets) released by Wacker Neuson and developed for work with the machine.
Working lights	Working lights illuminate the working area of the vehicle.
Base vehicle	Vehicle without Options
Operating personnel	Individuals who may be responsible for installing, operating, setting up, maintaining, cleaning, repairing, or transporting vehicles.
Vehicle/machine	Unless otherwise specified, the term **vehicle** or **machine** refers to the earth-moving machinery described in these operating instructions. The vehicle may also be referred to as an **excavator** to avoid confusion with other vehicles.
Vehicle operator/operator	A company that operates a vehicle. A person who operates a vehicle.
Machine operation	All work (e.g. transporting material, maintenance work) that may or must be carried out by an operator.
Lift capacity table	A lift capacity table shows the maximum weight that can be lifted in a given lift arm position during excavation.
Hose rupture	Hydraulic oil escapes from a hydraulic hose at high pressure.
Visual aids	Visual aids are, for example, rearview mirrors, camera monitors, but also persons assisting the operator during vehicle operation.
EU Stage V/Tier 4	The vehicles comply with different exhaust-gas standards depending on optional equipment. If necessary (e.g. during operation), engine versions are described separately. **EU Stage V** and **Tier 4** are examples. Other exhaust norms could also be described in the operator's manual.
Additional control circuits	Additional control circuits required for certain attachments. • AUX I: auxiliary hydraulics (for example for hydraulic hammer or offset bucket) • AUX II: 3rd control circuit (for example for universal grab) • AUX III: for example Powertilt • AUX IV: hydraulic quickhitch (for example Easy Lock) • AUX V: oscillating grab

1.3 Machine overview (up to serial no. AI00966)

1 Boom light
2 Boom
3 Shovel arm
4 Track
5 Chassis
6 Stabilizer blade
7 Handhold
8 Lifting eye/lashing eye
9 Engine cover
10 Storage bin for Operator's Manual
11 Lock lever

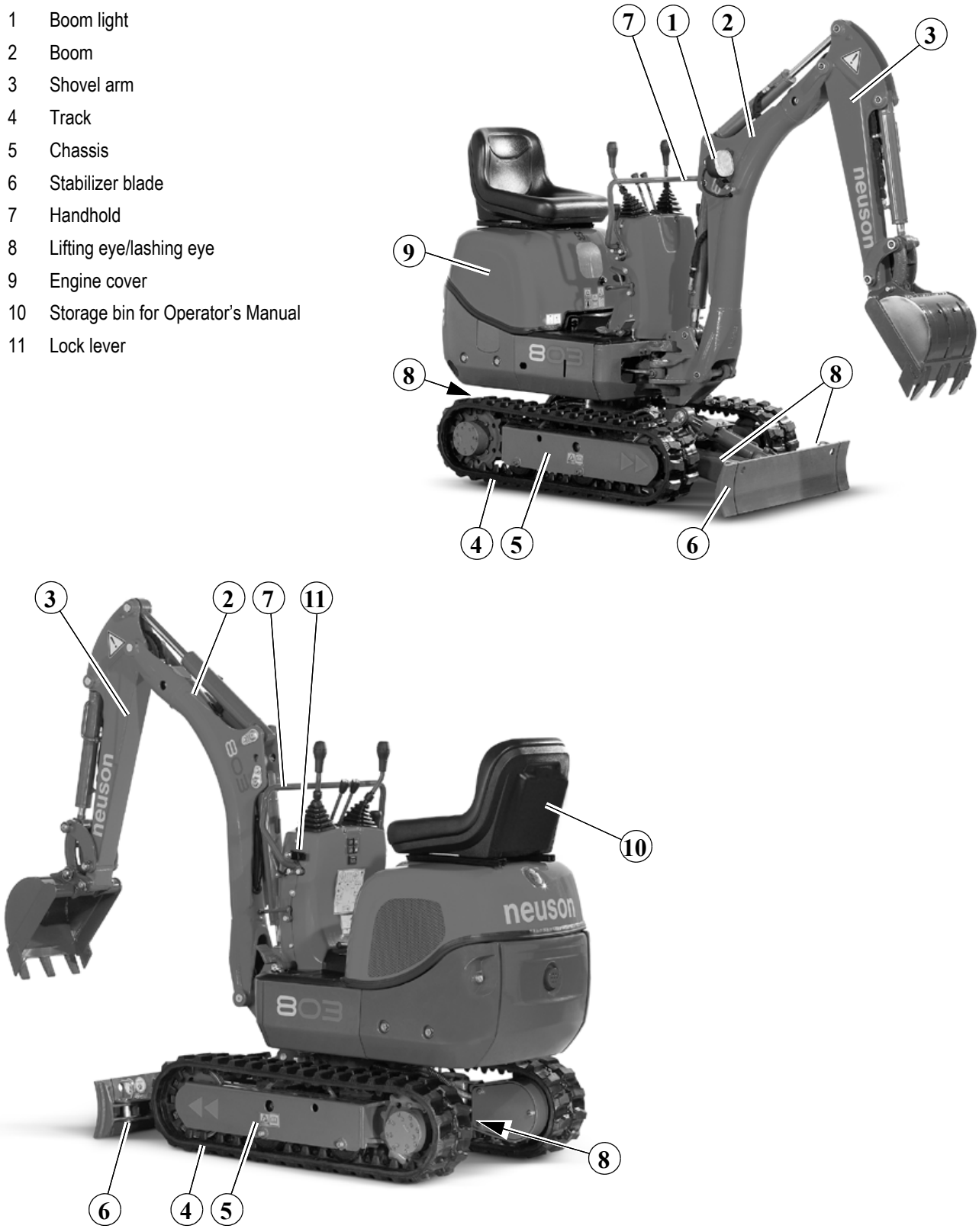


Fig. 1: Vehicle outside views

1.4 Machine overview (from serial no. AI00967)

1 Boom light
2 Boom
3 Shovel arm
4 Track
5 Chassis
6 Stabilizer blade
7 Handhold
8 Lifting eye/lashing eye
9 Engine cover
10 Storage bin for Operator's Manual
11 Lock lever
12 ROPS rollbar (option)
13 Shatter protection (option)

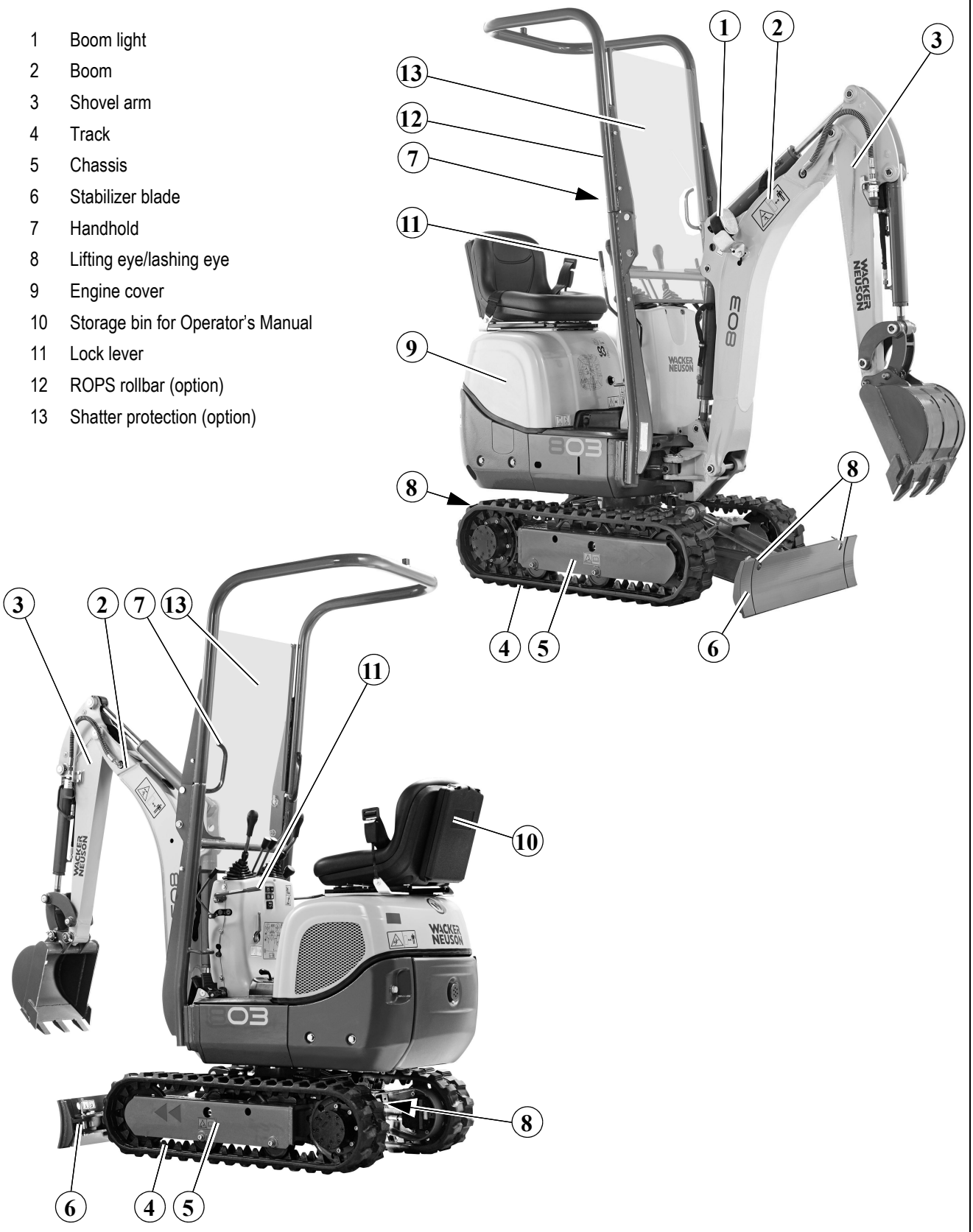


Fig. 2: Vehicle outside views

1.5 Brief description

Wacker Neuson tracked excavators are self-propelled machines.

These vehicles are powerful, highly flexible and efficient construction vehicles with minimum environmental impact. They are mainly used for loosening and moving earth, for example for digging and filling up construction pits.

A wide range of attachments accounts for the numerous applications of the machine, including hammer operation.

Information!

The machine can be equipped with the **Telematic** option (for transmitting operating data, location, etc. via satellite).

Definition of the term “Protective Structure”

Protective structures are additional elements that protect the operator or user against hazards. These elements can be installed later on or as standard equipment.

Explanation of abbreviations

ROPS:

Roll Over Protective Structure

TOPS:

Tip Over Protective Structure

MSWS:

Mechanical quickhitch

1.6 Rollbar

The rollbar has been specially designed for protection in case of an accident.

- ROPS/TOPS tested rollbar (option).
- Shatter protection (option from AI00967); Protective structure against frontal flying fragments.

1.7 Mechanical integrity

DANGER

Accident hazard due to modified protective structures!

Improper work on safety guards will result in serious injury or death.

- No drilling, cutting or grinding on protective structures.
- Welding, straightening or bending work on protective structures is prohibited.
- Have damaged protective structures immediately replaced.

Information!

Check the rollbar and all protective structures once a day for damage.

Information!

Protective structures may only be installed or removed by a Wacker Neuson service center.

Responsibility for vehicle equipped with protective structures

The decision regarding the necessary protective structures (type and level I or II) must be made by the machine owner and depends on the specific work situation.

The vehicle owner must observe the national regulations and he must inform the operator on the protective structure to be used in a specific work situation.

1.8 Fields of application, attachments

The specified weights are exemplary and only serve as a guide. The actual weight may be lower or higher.

In order to determine the actual weight, the attachment must be weighed.

Not all attachments are available for every vehicle.

There may be additional bucket widths that are not specified in this operator's manual.

Only use attachments released by Wacker Neuson. For more information, contact a Wacker Neuson sales partner.

Comply with national and regional regulations.

Vehicle class up to one ton		
Bucket	**Width mm (in)**	**Weight kg (lbs)**
Bucket	250 (10)	20-35 (45-80)
	300 (12)	25-45 (60-100)
	370 (15)	25-50 (60-115)
	400 (16)	25-50 (60-115)
Ditch cleaning bucket	700 (28)	35-60 (80-135)

Accessories vehicle class up to one ton	**Weight kg (lbs)**
Consoles (Easy Lock, Lehnhoff system, etc.)	20-40 (45-90)
Hydraulic hammer	70-100 (155-225)

1.9 Target-group definition

This Operator's Manual is intended for professional construction site personnel.
Any operator must have fully read and understood this Operator's Manual completely.
A dealer or person renting the vehicle must instruct the operator and have this confirmed in writing.

1.10 Operator qualification and requirements for safe operation

The safe operation of a vehicle depends, among other things, on the following criteria:

- Machine model and its outfitting
- Machine maintenance
- Work and driving speed
- Nature of ground and work environment

The most important points are the operator's qualification and power of judgment. A well-trained operator following the operator's manual and maintenance plan ensures a long service life and durability of the vehicle.
Specific training enables the operator to acquire, among other things, the following skills:

- Correct assessment of work situations
- Feeling for the vehicle
- Recognition of possible risk situations
- Safe working by making the correct decisions for man, vehicle and the environment

The operator is at risk if the vehicle is not operated correctly.
Follow the operating procedures and instructions described for the vehicle.
Access to the vehicle or vehicle operation is prohibited for children and persons under the influence of alcohol, drugs, or medicine.

1.11 Rollbar

Information!

Always fasten the seat belt if the rollbar is raised.

Information!

The lap belt must not be used on vehicles without a roll bar.

- Machine operation with the rollbar lowered is prohibited – *see chapter Operation with lowered ROPS rollbar* on page 2-9.

1.12 EC Declaration of Conformity

EC Declaration of Conformity

Manufacturer

Wacker Neuson Linz GmbH, Flughafenstraße 7, 4063 Hörsching, Austria

CE

Product

Machine designation	**Hydraulic excavator**
Machine model	**E08-01**
Trade name	**803**
Serial number	**--**
Engine/output kW	**3TNV70-VNSV/9.9**
Measured sound power level dB(A)	**93**
Guaranteed sound power level dB(A)	**93**

Conformity assessment procedure

Notified body according to directive 2006/42/EC, appendix XI:
DGUV Test, test and certification body
construction department, Am Knie 6, 81241 München, Germany
Notified body of the EU, identification number: 0515

For 2000/14/EG notified body involved in procedure

Industrial Supervisory Board SÜD Industrie Service GmbH
Westendstraße 199
D 80686 München
Notified Body of the EU, identification number: 0036

Directives and standards

We hereby declare that this product corresponds to the relevant regulations of the following Directives and standards:

2006/42/EG, 2005/88/EG, 2000/14/EG - Appendix VIII, 2014/30/EU, 2014/53/EU (if telematics option is installed);
DIN EN ISO 12100:2010, DIN EN 474-1:2006+A4:2013 and DIN EN 474-5:2006+A3:2013
(except for point C.3.3), DIN EN 3471:2010, EN ISO 3744:1995, DIN EN ISO 3449:2009

Authorized representative for the compilation of technical documentation

Wacker Neuson Linz GmbH
Flughafenstraße 7
4063 Hörsching
Austria

Robert Finzel,
Managing director

The indications specified above correspond to the existing information at time of going to press. They have possibly changed in the meantime (refer to the original declaration of conformity supplied with the vehicle). Applies to EU countries, and countries with legislation similar to that of the EU. Applies to all vehicles with CE marks that have not been modified without authorization since the product was placed on the market.

1.13 Type labels and component numbers

Information!

Type, quantity, and position of the labels depend on options, country and vehicle.

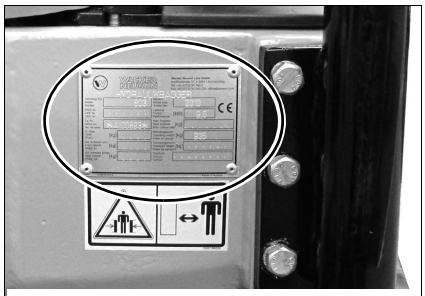


Fig. 1: Type label: location (symbolic representation)

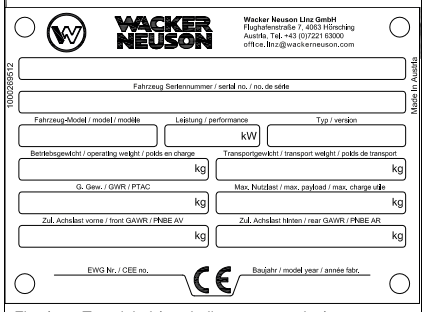


Fig. 1: Type label (symbolic representation)

Serial number

The serial number is stamped on the machine chassis. It is also located on the type label.

The type label is located at the front right on the machine chassis (at control stand level).

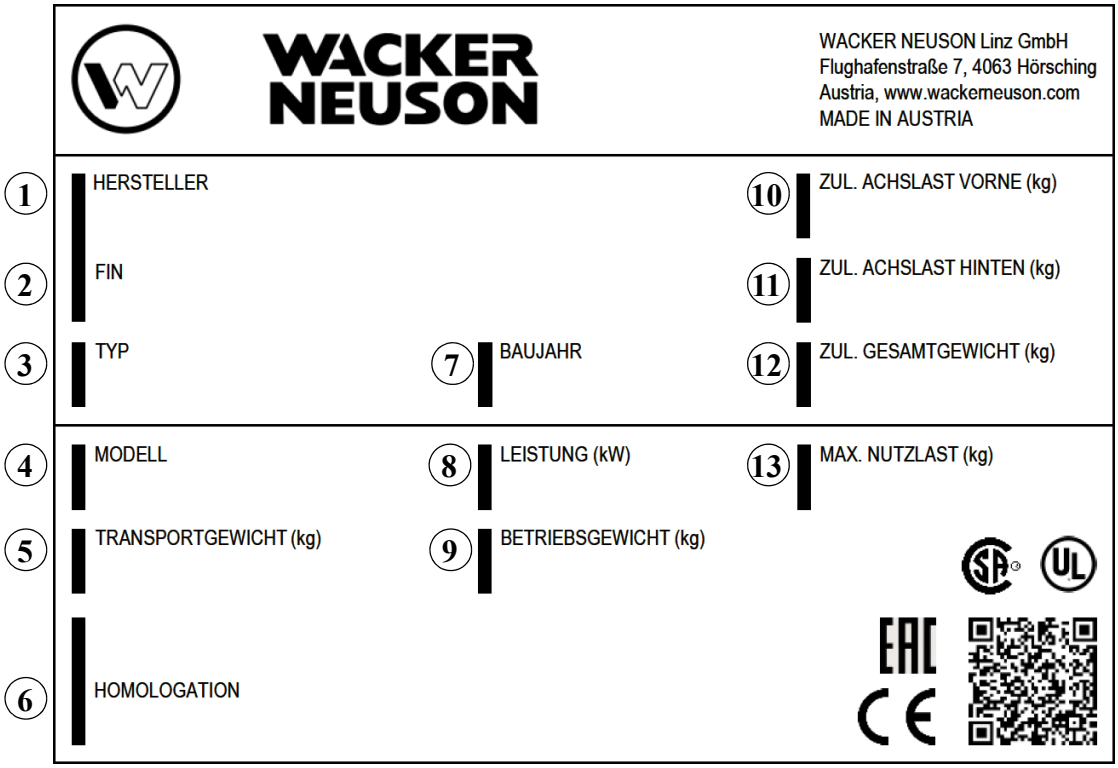
Type label (version 1)

Type label information (example):

Machine designation:		HYDRAULIC EXCAVATOR
Model:		----------
Model year:		----------
CEE no.	(EWG no.)	----------
Output:		----------
Serial no.:		----------
Max. payload:		----------
GWR:	(Permissible maximum weight)	----------
Operating weight:		----------
Front GAWR:	(Front gross axle weight rating)	----------
Transport weight:		----------
Rear GAWR:	(Rear gross axle weight rating)	----------
Version:		----------

Other information – *see chapter 6 Technical data* on page 6-1

Type label (version 2)



Number	Type label
1	Manufacturer
2	Machine serial number
3	Internal model designation
4	Trade name
5	Transport weight
6	Certification
7	Year of construction
8	Power
9	Operating weight
10	Front gross axle weight rating
11	Rear gross axle weight rating
12	Permissible maximum weight
13	Maximum payload

Information!

The type label is bright for better legibility. The language on the type label may vary.

17-digit serial number

The 17-digit serial number has additional information, in order to make vehicle identification easier.

Version 1:

Manufacturer code	Machine model	Internal model designation	Check letter	Production site	Serial number
WNC	E (Excavator)	1301	K	PAL	12345
	D (Dumper)				
	A (Unit)				
	S (Skid steer loader)				

Variant 2:

Manufacturer code	Machine model	Internal model designation	Check letter	Serial number
WNC	E (Excavator)	1301	K	00012345
	D (Dumper)			
	A (Unit)			
	S (Skid steer loader)			

Information!

Wacker Neuson components (for example Easy Lock, tilt bucket, rollbar) have numeric serial numbers only.

Fig. 2: ROPS bar type label (symbolic representation)

ROPS bar type label

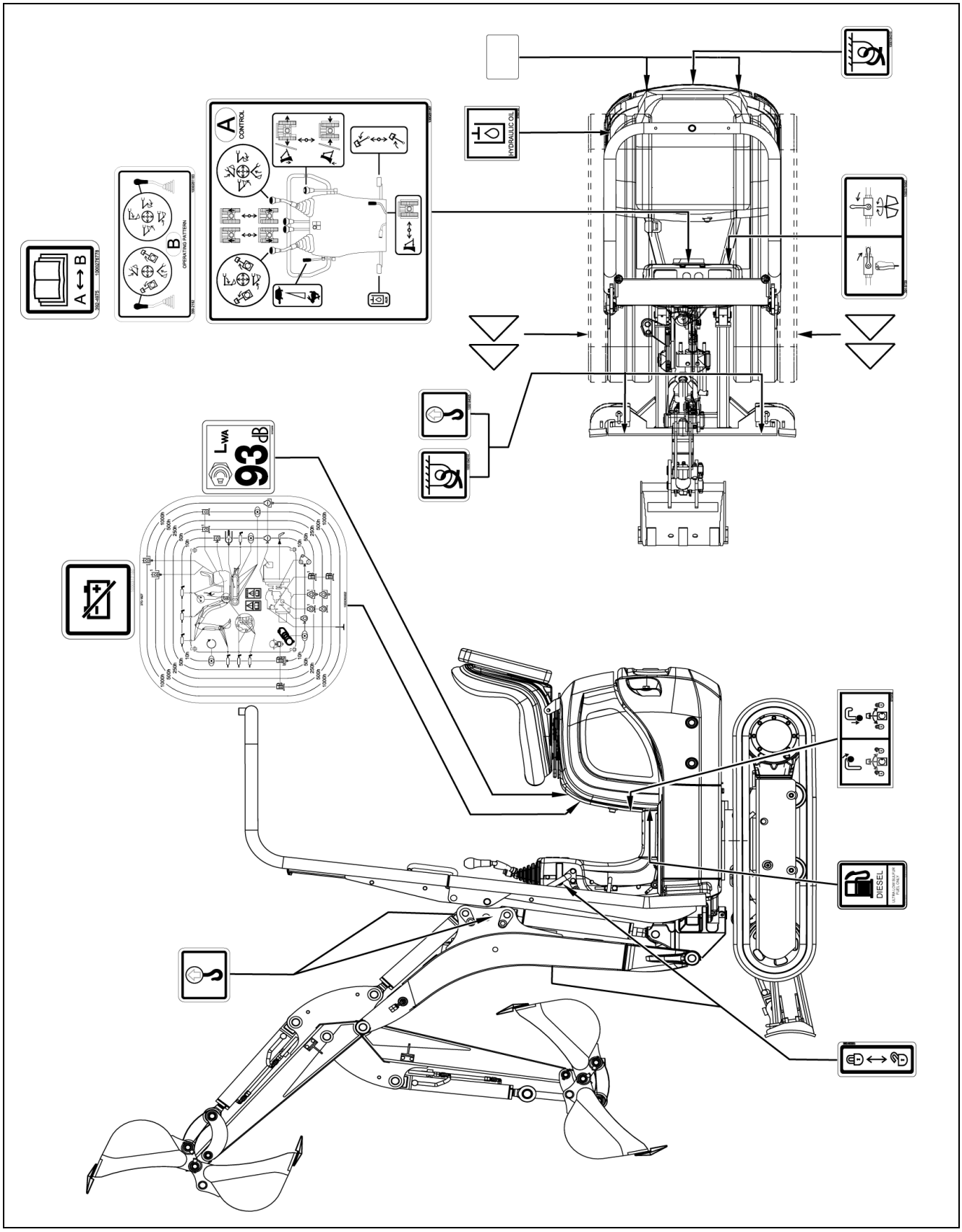
The type label is located at the front right, on one side of the rollbar.

Fig. 3: Engine number

Engine number

The type label is located on the cylinder-head cover (engine).

1.14 Overview of adhesive labels



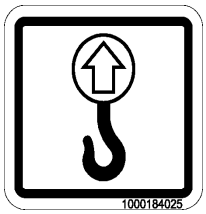


Fig. 4: Lifting eyes

Meaning

Lifting eyes

– *see chapter* *Crane handling the machine* on page 3-53

Position

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

Fig. 5: Tie-down points

Meaning

Tie-down points

Position

On either side of the stabilizer blade, at the center of the undercarriage

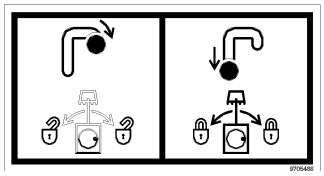


Fig. 6: Swivel unit lock

Meaning

Upper carriage lock

Position

On the front side of the engine cover

Fig. 7: Noise level indication

Meaning

Indication of sound power level produced by the vehicle

L_{WA} = sound power level

Position

On the front side of the engine cover

Fig. 8: Hydraulic oil

Meaning

Hydraulic oil

Position

On the hydraulic oil reservoir

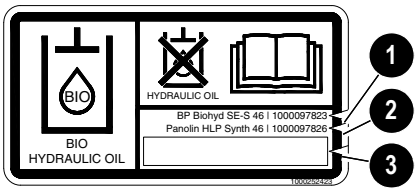


Fig. 9: Biodegradable hydraulic oil

Meaning (option)

The reservoir contains biodegradable hydraulic oil.

This label is notched on the side depending on the biodegradable hydraulic oil used.

1 BP Biohyd SE-S 46

2 Panolin HLP Synth 46

3 Other producer of biodegradable hydraulic oil

During operation with a zero-emission power unit, there must be no biodegradable hydraulic oil in the excavator or power unit.

Position

Under the engine cover on the hydraulic oil reservoir

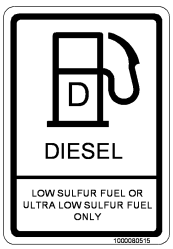


Fig. 10: Diesel

Meaning

Only fill up with diesel fuel with a low sulfur content

Position

On the fuel tank

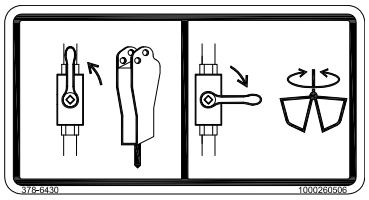


Fig. 11: Hammer/grab operation (up to WNCE0801EP-AL0209)

Meaning (option)

(up to serial no. WNCE0801EPAL00209)

Changeover from hammer to grab operation

Position

On the control stand

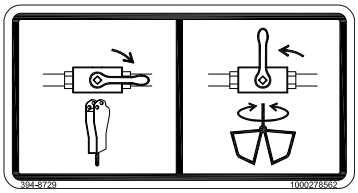


Fig. 12: Hammer/grab operation (from WNCE0801EP-AL0210)

Meaning (option)

(from serial no. WNCE0801EPAL00210)

Changeover from hammer to grab operation

Position

On the control stand

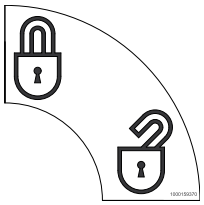


Fig. 13: Lock lever

Meaning (up to serial no. AI00814)
Hydraulic functions active or locked
Position
On the left-hand side of the control element console

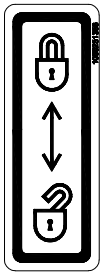


Fig. 14: Lock lever

Meaning (from serial no. AI00815)
Hydraulic functions active or locked
Position
On either side of the control stand

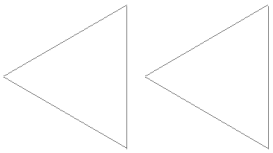


Fig. 15: Direction indicator

Meaning
This sticker indicates the forward direction of travel
Position
On either side of the undercarriage

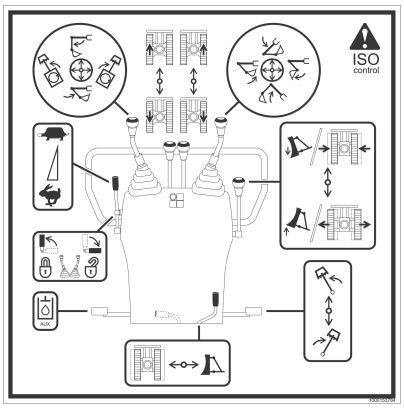


Fig. 16: Function overview

Meaning (up to serial no. AI00814)
Functional overview (ISO controls)

Position
On the control stand

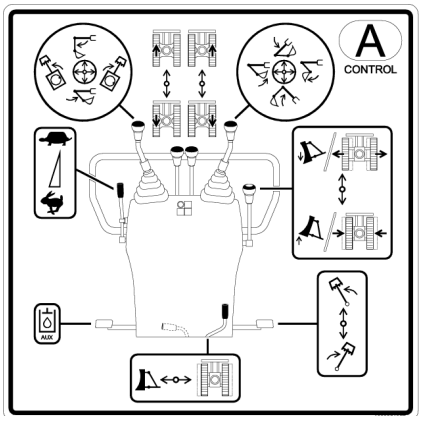


Fig. 17: Function overview

Meaning (from serial no. AI00815)
Functional overview (ISO controls)

Position
On the control stand

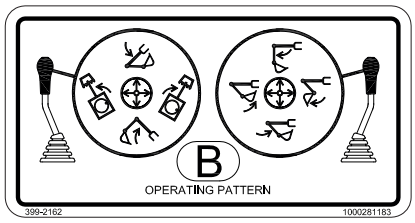


Fig. 18: SAE controls

Meaning

Operating procedures deviating from ISO control when SAE control is is set

Position

On the control stand

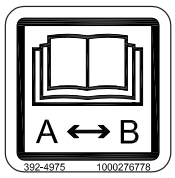


Fig. 19: ISO/SAE changeover

Meaning

Check before starting the machine the operating pattern that has been chosen.

Wiring diagram	Controls
A	ISO-Control (Europe)
B	SAE-Control (US)

Position

On the control stand

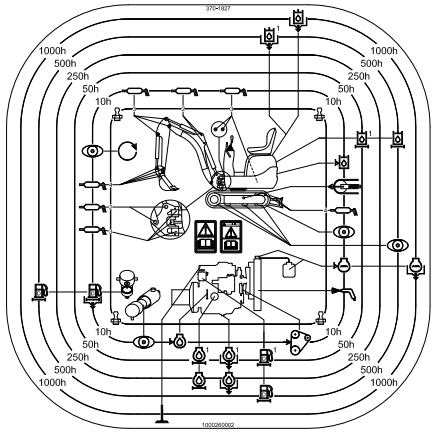


Fig. 20: Maintenance plan

Meaning

Maintenance plan

Position

On the front side of the engine cover

Fig. 21: Battery master switch

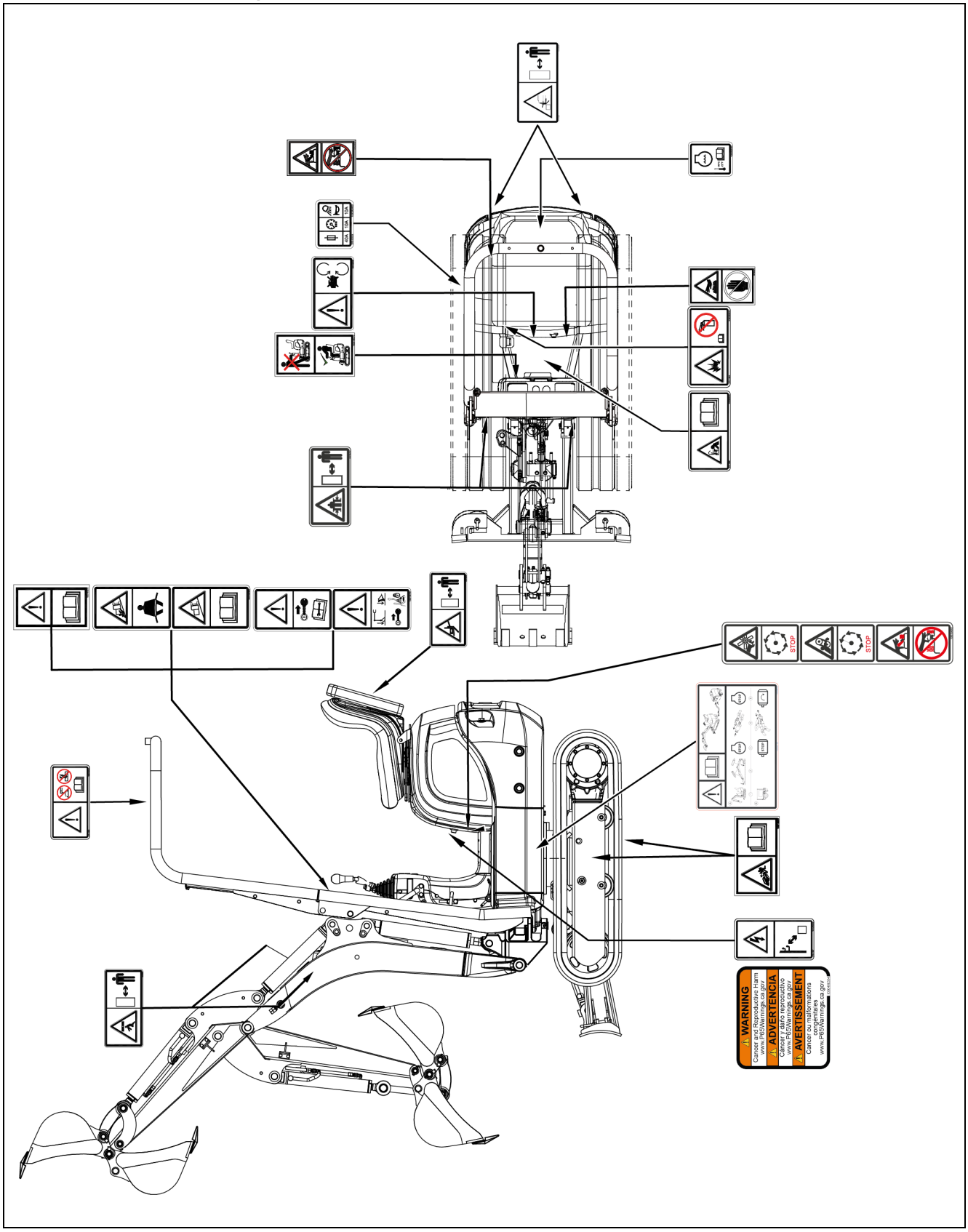
Meaning

Battery master switch

Position

On the front side of the engine cover

1.15 Overview of safety labels



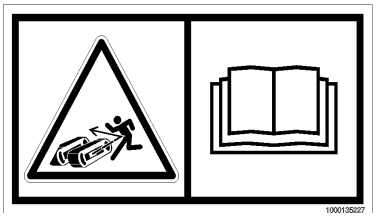


Fig. 22: Tightening the tracks

Meaning
Injury hazard due to grease escaping under pressure
Read the operating instructions before working on the track tensioner
Position
On left and right-hand undercarriage

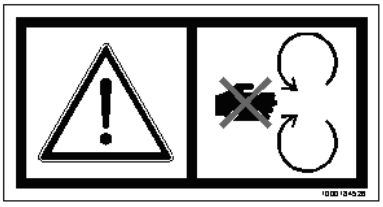


Fig. 23: Stop the engine.

Meaning
Injury hazard due to rotating parts
Open the engine cover only at engine standstill
Position
On the engine cover

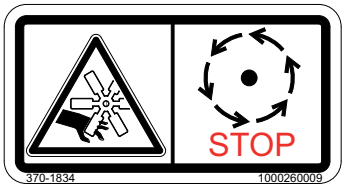


Fig. 24: Fan in engine compartment

Meaning
Injury hazard due to rotating parts
Open the engine cover only at engine standstill
Position
On the engine cover
In the engine compartment

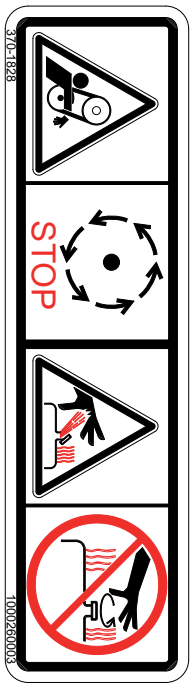


Fig. 25: Hydraulic oil reservoir under pressure

Meaning
Read the operating instructions before starting up the vehicle
Remove the starting key and carry it with you.

Injury hazard due to rotating parts
Open the engine cover only at engine standstill.

Burn hazard due to hot surfaces
Let the engine cool down.
Burn hazard due to hot fluid

Injury hazard due to fluid escaping under pressure
Let the engine cool down.
Depressurize hydraulic system, then carefully open closures
Position
In the engine compartment

Fig. 26: Reservoir under pressure

Meaning

Caution, the reservoir is hot and under pressure!

- Allow the fluids to cool down!

  Carefully and slowly open the cover only after the reservoir has cooled down, to release the pressure.

  Wear suitable protective clothing and safety glasses to open the cover.

Position

On the hydraulic oil reservoir

Fig. 27: Hot surfaces

Meaning

Hot surfaces

Position

In the engine compartment

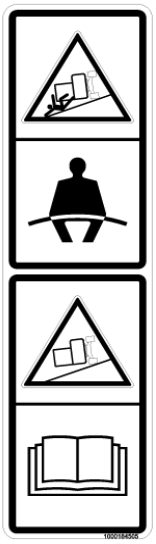


Fig. 28: Warnings

Meaning (up to serial no. AI00824)

Caution, risk of serious injury or death!

- Operate the machine only when seated on the seat.
- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
- Machine operation with the rollbar lowered is prohibited.

Caution, risk of serious injury or death!

- Always work ensuring machine stability, do not overload the machine and use only attachments that have been released by the manufacturer. Always work on firm ground. Follow the instructions given in the Operator's Manual.

Position

At the front on the engine cover (standard).

On the left on the rollbar (option).

Fig. 29: Warnings

Meaning (from serial no. AI00825)

Caution, risk of serious injury or death!

- Operate the machine only when seated on the seat.
- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
- Machine operation with the rollbar lowered is prohibited.

Caution, risk of serious injury or death!

- Always work ensuring machine stability, do not overload the machine and use only attachments that have been released by the manufacturer. Always work on firm ground. Follow the instructions given in the Operator's Manual.

Position

At the front on the engine cover (standard).

On the left on the rollbar (option).

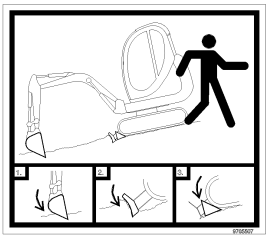


Fig. 30: Parking the machine correctly

Meaning (up to serial no. AI00681)

Lower the arm system and dozer blade to the ground when leaving the machine, remove the starting key.

Position

At the front on the engine cover

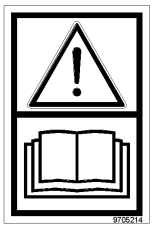


Fig. 31: Read and understand the Operator's Manual

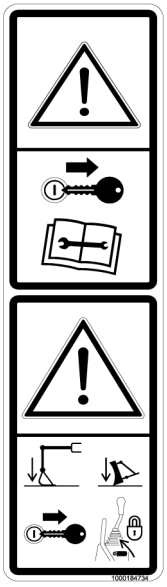
Meaning

Read the operating instructions before starting up the vehicle

Position

At the front on the engine cover (standard).

On the left on the rollbar (option).


(from serial number AI00824)

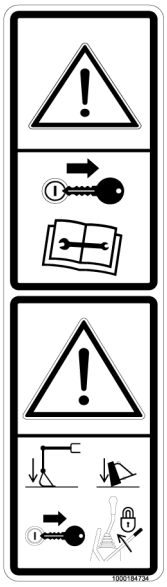

(from serial number AI00825)

Fig. 32: Warnings

Meaning

Attention, danger of unintentional start-up of the machine!

Danger of serious crushing of body!

- Before performing maintenance and repair work, stop the engine, raise the lock lever and remove the starting key.
  The key must be kept by the operator.

Position

At the front on the engine cover (standard).

On the left on the rollbar (option).

Caution, risk of serious injury or death!

- Lower the boom and the stabilizer blade to the ground before leaving the machine, stop the engine, raise the lock lever and remove the starting key.

Position

At the front on the engine cover (standard).

On the left on the rollbar (option).

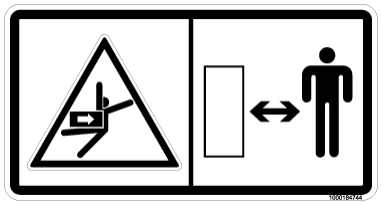


Fig. 33: Swiveling range

Meaning

Crush Hazard

Do not allow anyone to stay in the danger zone.

Position

At the rear left

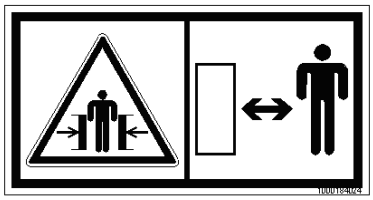


Fig. 34: Swiveling range

Meaning

Crush Hazard

Do not allow anyone to stay in the danger zone.

Position

At the front left and right of the chassis

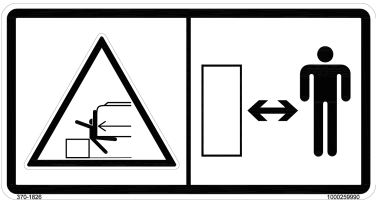


Fig. 35: Swiveling range of the rear weight

Meaning

Crush Hazard

Do not allow anyone to stay in the danger zone.

Position

On the rear weight left and right

Fig. 36: Danger label

Meaning (up to serial no. AI00681)

Danger of burns from hot surfaces (lines, plug connections, screw fittings, hydraulic cylinders, couplings, etc.).

Position

On either side of the boom

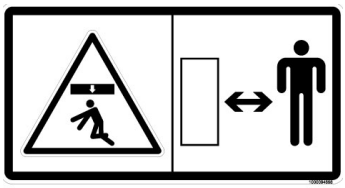


Fig. 37: Boom operation

Meaning

Injury hazard

Do not allow anyone to stay in the danger zone

Position

On either side of the boom

Fig. 38: Use the lock lever

Meaning (from serial number AF01941)

Injury hazard

Operate the machine only when seated on the seat.

Before leaving the seat, raise the lock lever to prevent unintentional movements!

Do not allow anyone to stay in the danger zone.

Position

At the right on the control stand

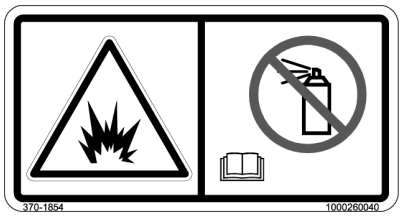


Fig. 39: Do not use ether

Meaning

Do not use starting aid sprays

Position

In the engine compartment on the air intake hose

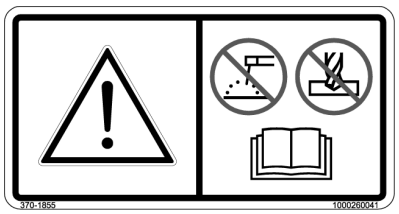


Fig. 40: Do not drill holes or weld the ROPS structure

Meaning

Modifications to the structure (for example welding, drilling), retrofitting, and incorrect repairs affect the protective effect of the cabin and can cause serious injury and even death.

Position

On the ROPS bar

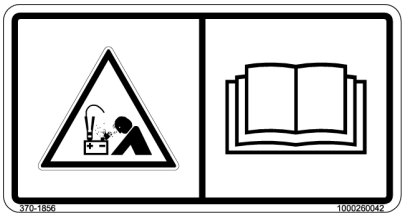


Fig. 41: Danger of explosion

Meaning

Explosion hazard due to wrong connection of battery jump cables

Position

Near the battery

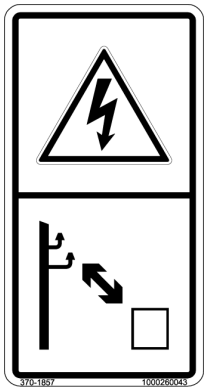


Fig. 42: Power lines

Meaning

Electric shock

Keep a safe distance from high-voltage lines. Always keep a safe distance from electrically conductive parts with the machine and the equipment.

Position

On the control stand

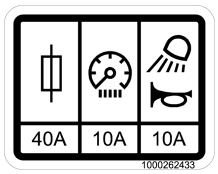


Fig. 43: Fuses

Meaning

Fuse assignment.

Position

Behind the right-hand trim

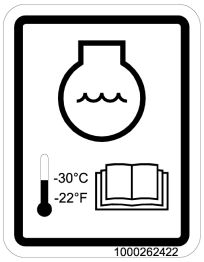


Fig. 44: Coolant

Meaning

The coolant must have a thermal stability of –30°C (–22 °F).

Position

On the inside of the engine cover

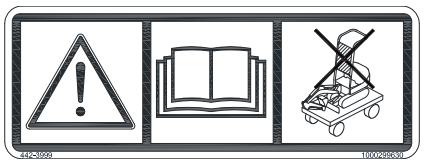


Fig. 45: Removing the shatter protection

Meaning (option)

If the vehicle is transported on an open loading area, remove the splinter guard

Position

On the top left of the splinter guard in the direction of travel

Information!

If an additional cross brace is installed (from the 3rd quarter of 2014), the shatter protection does not have to be removed before transporting the machine on an open platform.

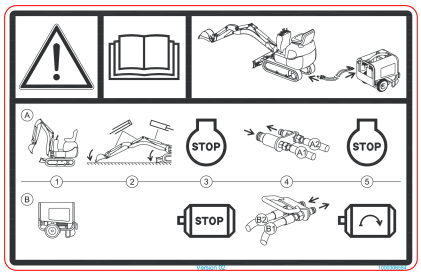


Fig. 46: Dual Power connection

Meaning (option)

Read operating instructions before attaching connecting lines

Position

Left on the chassis

Fig. 47: California 65

Position

On the engine cover

2 Safety instructions

2.1 Identification of warnings and dangers

Important indications regarding the safety of the personnel and the machine are identified in this Operator's Manual with the following terms and symbols:

DANGER

DANGER identifies a situation causing death or serious injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury or death.

WARNING

WARNING identifies a situation that can cause death or serious injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury or death.

CAUTION

CAUTION identifies a situation that can cause injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury or death.

NOTICE

Failure to observe the instructions identified by this symbol can cause damage to the machine.

- Measures for avoiding danger for the vehicle

Information!

This symbol identifies instructions for a more efficient and economical use of the vehicle.

Environment!

Failure to observe the instructions identified by this symbol can cause damage to the environment. The environment is in danger if environmentally hazardous material (for example waste oil) is not subject to proper use or disposal.

2.2 Warranty

Warranty claims can be made only if the conditions of warranty have been observed. They are included in the General Conditions of Sales and Delivery for new machines and spare parts sold by the dealers of Wacker Neuson Linz GmbH.

Warranty claims can be brought forward to your Wacker Neuson dealer only.

Furthermore, all instructions in this Operator's Manual must be observed.

2.3 Disposal

All fluids, lubricants, material, etc., used on the machine are subject to specific regulations regarding collection and disposal. Dispose of different materials and consumables separately and in an environmentally friendly manner!

Disposal may only be performed by a Wacker Neuson dealer. Also observe the national regulations regarding disposal!

Environment!

Avoid damage to the environment! Do not allow the oil and oily wastes to get into the ground or stretches of water!

2.4 Designated use and exemption from liability

- The vehicle is intended for:
  - •Moving earth, gravel, coarse gravel or ballast and rubble.
  - •Every other application is regarded as not designated. Wacker Neuson will not be liable for damage resulting from use other than mentioned above. The operator alone will bear the risk.
  - •Designated use also includes observing the instructions set forth in the Operator's Manual and observing the maintenance and service conditions.
- The safety of the vehicle can be negatively affected by performing vehicle modifications without proper authority and by using spare parts, equipment, attachments and optional equipment that have not been checked and released by Wacker Neuson. Wacker Neuson will not be liable for damage resulting from this.
- Wacker Neuson Linz GmbH shall not be liable for injury and/or damage to property caused by failure to observe the safety instructions and the operator's manual, and by the negligence of the duty to exercise due care when:
  - •Handling
  - •Operating
  - •Servicing and performing maintenance
  - •Repairing the machine. This is also applicable in those cases in which special attention has not been drawn to the duty to exercise due care, in the safety instructions, the Operator's Manuals and maintenance manuals (machine/ engine).
  - •Read and understand the Operator's Manual before starting up, servicing, or repairing the machine. Observe all safety instructions!
- The machine may not be used for transport jobs on public roads!
- Hammer operation is only allowed in specified areas.
- Do not operate the vehicle in radioactively, biologically or chemically contaminated areas.

2.5 General conduct and safety instructions

Organizational measures

- The machine has been designed and built in accordance with state-of-the-art standards and the recognized safety regulations. Nevertheless, its use can pose a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.
- The machine must only be used in technically perfect condition in accordance with its designated use and the instructions set forth in the Operator's Manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any malfunctions, especially those affecting safety, must therefore be rectified immediately!
  Basic rule*:*
  Before putting the machine into operation, inspect the machine for safety in work operation!
- Careful and prudent working is the best way to avoid accidents!
- The Operator's Manual must always be at hand at the place of use of the machine, and must therefore be kept in the document box at the rear of the seat.
  Immediately complete or replace an incomplete or illegible Operator's Manual!
- In addition to the Operator's Manual, observe and instruct the operator in all other generally applicable, legal and other mandatory regulations relevant to accident prevention and environmental protection.
  These compulsory regulations may also deal with handling hazardous substances, issuing and/or wearing personal protective equipment, or traffic regulations.
- With regard to specific operational features, for example those relevant to job organization, work sequences or the persons entrusted with the work, supplement the Operator's Manual by corresponding instructions, including those relevant to supervising and reporting duties.
- Persons entrusted with work on the machine must have read and understood the Operator's Manual and in particular, chapter "Safety Instructions" before beginning work. This applies especially to persons working only occasionally on the machine, for example for set-up or maintenance.
- The user/owner must check – at least from time to time – whether the persons entrusted with operation or maintenance are working in compliance with the Operator's Manual and are aware of risks and safety factors.
- The user/owner commits himself to operate and keep the machine in perfect condition, and, if necessary or required by law, to require the operating or servicing persons to wear protective clothing, etc.
- In the event of safety-relevant modifications or changes on the machine or of its behavior, stop the machine immediately and report the malfunction to the competent authority/person.
  Safety-relevant damage or malfunctions of the machine must be rectified immediately!

- Never make any modifications, additions or conversions to the machine and its superstructures, as well as to the attachments, which might affect safety without the approval of Wacker Neuson! This also applies to the installation and the adjustment of safety devices and valves, as well as to welding work on load-bearing elements.
- Spare parts must comply with the technical requirements specified by Wacker Neuson. Original spare parts can be relied to do so.
- Replace hydraulic hoses within stipulated and appropriate intervals even if no safety-relevant malfunctions have been detected.
- Before working on or with the machine, remove jewelry, such as rings, wristwatches, bracelets, etc. Tie back long hair and do not wear loose-fitting garments, such as unbuttoned or unzipped jackets, ties or scarves.
  Injury can result from being caught up in the machinery or from rings catching on moving parts!
- Keep the machine clean. This reduces:
  - •Fire hazard, for example due to oil-soaked rags lying around
  - •Injury hazard, for example due to dirt or debris on the footholds, and
  - •Accident hazard for example due to dirt pile-up on the pedals
- Observe all safety, warning and information signs and labels on the machine!
- Adhere to prescribed intervals or those specified in the Operator's Manual for routine checks/inspections and maintenance!
- Tools and workshop equipment adapted to the task on hand are absolutely indispensable for performing service, inspection, maintenance or repair work!

Selection and qualification of personnel, basic responsibilities

- Any work on or with the machine must be performed by reliable personnel only. Do not let unauthorized persons perform machine travel or operation! Observe statutory minimum age limits!
- Employ only trained or instructed personnel on the machine, and clearly and unequivocally define the individual responsibilities of the personnel for operation, set-up, maintenance and repair!
- Define the machine operator's responsibilities – also with regard to observing traffic regulations. Give the operator the authority to refuse instructions by third parties that are contrary to safety.
- Do not allow persons to be trained or instructed or persons taking part in a general training course to work on or with the machine without being permanently supervised by an experienced person!
- Work on the electrical system and equipment, on the travel gear and the steering and braking systems may be performed only by skilled personnel which has been specially trained for such work. Work on the hydraulic system of the machine must only be performed by personnel with special knowledge and experience in hydraulic equipment!

- Seal off the danger zone should it not be possible to keep a safe distance.
  Stop machine operation if persons do not leave the danger zone in spite of warning!
  Keep out of the danger zone!

Danger zone:

The danger zone is the area in which persons are in danger due to the movements of the

- Vehicle
- work equipment
- additional equipment or
- material

This also includes the area affected by falling material, equipment or by parts that are thrown out. The danger zone must be extended by 0.5 m (20 in) in the immediate vicinity of

- buildings
- scaffolds or
- other elements of construction

2.6 Safety instructions regarding operation

Normal operation

- Putting the machine into operation and operating it with a raised rollbar is allowed only if the seat belt is fastened and tightened.
- Before releasing the seat belt, raise the lock lever and stop the engine to avoid unintentional operation.
- Operate the machine only when seated on the seat.
  - The operator must touch the backrest with his back.
  - When operating the machine, always leave your feet on the pedals or footrests/floor mats.

  ➥ Do not press the pedals unintentionally!

  ➥ Feet must not protrude beyond the floor mat – danger of crushing!
  - Before leaving the seat, raise the lock lever to prevent unintentional movements!
- Avoid any operational mode that might be prejudicial to safety!
- Apart from the operator, no other persons are allowed to ride on the machine.
- Before beginning work, familiarize yourself with the surroundings and circumstances of the job site. These are, for example, obstacles in the job site and travel area, the soil bearing capacity and any necessary barriers separating the job site from public roads.

- With the telescopic undercarriage extended and the slope inclined, position the boom downslope and keep the bucket just about 20 - 30 cm (8 - 12 in) above the ground. in order to reduce injury and damage to a minimum in the event of a hose rupture on the telescopic cylinder. A hose rupture might cause the travel gear to retract and jeopardize the machine's stability.
- Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state!
  Operate the machine only if all protective and safety-oriented devices, for example removable safety devices, soundproofing elements, etc., are in place and fully functional!
- Check the machine at least once a day/per work shift for visible damage and malfunctions! Report any changes (incl. changes in working behavior) to the competent organization/person immediately! If necessary, stop the machine immediately and lock it!
- In the event of malfunctions, stop the machine immediately and lock it! Have any malfunctions rectified immediately!
- Perform start-up and shut-down procedures in accordance with the Operator's Manual, and observe the indicator lights!
- Before putting the machine/attachment into operation (start-up/moving), ensure that no one is at risk by putting the machine/attachment into operation!
- Before driving with the machine, and also after interrupting work, check whether the drive levers, the signaling and the light systems are functional!
- Before starting machine travel always check whether the supplementary equipment and the attachments have been safely stowed away or attached!
- During machine travel on public roads, ways and places, observe the valid traffic regulations and, if necessary, ensure beforehand that the machine is in a condition perfectly compatible with these regulations!
- Always switch on the lights in conditions of poor visibility and after dark!
- No lifting, lowering or carrying persons in the work equipment/attachments!
- Installing a man basket or a working platform is prohibited!
- When crossing underpasses, bridges and tunnels, or when passing under overhead lines always ensure that there is enough clearance!
- Always keep a safe distance from the edges of building pits and slopes!
- When working in buildings or in enclosed areas, look out for in particular:
  - •Height of the ceiling/clearances
  - •Width of entrances
  - •Maximum load of ceilings and floors
  - •Sufficient room ventilation – poisoning hazard!
- Avoid any operation that might be a risk to machine stability!

- During operation on slopes, move or work uphill or downhill. If performing machine travel across a slope cannot be avoided, bear in mind the tilting limit of the machine! Always keep the attachments/work equipment close to the ground. This also applies to downhill machine travel!
- On sloping terrain always adapt the travel speed to the prevailing ground conditions!
- Secure the machine against unintentional movement and unauthorized use! Lower the attachments to the ground.
- Before starting work check whether
  - •all safety devices are properly installed and functional.
- Before starting machine travel or before taking up work:
  - •Ensure that visibility is sufficient
  - •Adjust your correct seat position, never adjust the operator seat during machine travel or operation!
  - •Fasten your seat belt (with ROPS rollbar option)
  - •Inspect the immediate area.
  - •On the job site the operator is responsible for third parties!
- Caution when handling fuel – increased fire hazard!
  - •Ensure that fuel does not come into contact with hot parts! Do not smoke during refueling, and avoid fire and sparks. Stop the engine during refueling and do not smoke!
- Never get on or off a moving machine! Never jump off the machine!
- Should the lights of the machine not be sufficient for performing work safely, provide additional lighting of the job site.
- Installed work lights must not be switched on for travel on public roads. They can be switched on in work operation if motorists are not blinded.
- Use an external light source in case of poor illumination of the job site. If this is not enough to illuminate the job site sufficiently, stop machine operation and start it again when sufficient illumination can be ensured.
- The pedals take time getting used to them. Travel speed must be adapted to your skills and to the prevailing conditions.
- Operation in areas involving a risk of falling objects is prohibited.
- Operation in environments with fragments flying around is only allowed with a shatter protection and on the job site defined for this.
- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
  - •Machine operation with the rollbar lowered is prohibited.

Operation with lowered TOPS rollbar (up to serial no. AI00966)
Operation with lowered ROPS rollbar

WARNING

Danger of serious crushing of body and of death!

Causes serious injury or death.

- Depending on the situation, traveling over very short distances with a lowered rollbar is allowed (for example in case of low clearance heights), however only if the following conditions are fulfilled:
  - Obtain the approval of the appropriate national authority.
  - Working with a lowered rollbar is prohibited under all circumstances.
  - Machine travel is only allowed on absolutely level ground.
  - Avoid tipping movements of the machine under all circumstances.
  - Operation in areas involving a risk of falling objects is prohibited.
  - Do not fasten the seat belt in order to be able to leave the machine immediately in an emergency.
  - Wear protective equipment (for example protective clothing, safety glasses).

Checks when reversing the machine

- Careful when reversing the machine – accident hazard!
- Persons in the blind spot of the machine cannot be seen by the operator.
- Ensure that nobody is within the danger zone of the machine when changing the driving direction!

Lifting gear applications

Applications with lifting gear are understood as procedures involving raising, transporting and lowering loads with the help of slings and load-securing devices (for example ropes, chains). In doing so, the help of persons is necessary for securing and detaching the load. This applies, for example, to lifting and lowering pipes, shaft rings or containers.

NOTICE
No applications with lifting gear!

Working with attachments

- Prior to driving the machine, remove all attachments which cannot be secured in compliance with the legal regulations of your country!
- Attachments affect handling and the machine's steering capability!
- Fit the attachments with the specially required devices only!
- Before uncoupling or coupling hydraulic lines (hydraulic quick couplers)
  - •Stop the engine.
  - •Relieve hydraulic oil pressure in the hydraulic system; Do this by moving the operating levers of the hydraulic control units back and forth several times.
- Coupling attachments requires special care!
- Secure the attachments against unintentional movement!
- Operate the machine only if all protective facilities have been installed and are functional, and if all brake, light and hydraulic connections have been connected!
- If optional equipment is installed, all lighting equipment, indicator lights, etc. that are required in addition must be installed and functional.
- Install the attachments only if the engine and the drive have been switched off.
- Ensure that the attachment is safely locked with the machine. Check again before starting work.
- Raise the lock lever before installing attachments on the stick.
- Be careful when coupling attachments to the machine: injury hazard due to crushing and shearing. Ensure that nobody is between the machine and the attachment!

Transportation

- Only recover, load, and transport in accordance with the operator's manual!
- When recovering, observe the prescribed transport position, permissible speed, and distance.
- Use only suitable means of transport of appropriate capacity/payload!
- Safely secure the machine on means of transport! Use suitable tie-down points and load-securing devices.
- The recommissioning procedure must be strictly in accordance with the Operator's Manual!

Working in the area of underground electric lines

- Before starting any work, the machine operator must ensure that there are no lines on the job site.
- If you are not sure, contact the person in charge at the network operator.
- If there are lines, take the following safety measures:
  - •Mark the position and path of the lines unambiguously
  - •Fasten, support or secure exposed lines
  - •Safely fasten lines if vibration or shocks to these lines must be avoided

Working near overhead electric lines

DANGER

Death hazard due to electric shock!

Causes serious injury or death.

- During machine operation, maintain a safe distance from overhead electric lines!
- If work must be performed close to overhead lines, the equipment/attachments must be kept well away from them.

Rated voltage (volts)	Safety distance	
	Meters	Feet
Up to 1000 V	1 m	3.3 ft
Over 1 kV to 110 kV	3 m	9.8 ft
Over 110 kV and up to 220 kV	4 m	13.1 ft.
Over 220 kV and up to 380 kV	5 m	16.4 ft
Unknown rated voltage	5 m	16.4 ft

- If no sufficient distance can be kept to overhead electric lines, the machine operator must take other safety measures, for example switching off the current, in agreement with the owner or operator of the lines.
- If an energized line is touched nevertheless:
  - •Do not leave the machine
  - •Drive the machine out of the danger zone
  - •Warn others against approaching and touching the machine
  - •Have the live wire de-energized
  - •The operator must not touch any metallic parts
  - •Do not leave the machine until the line that has been touched or damaged has been safely de-energized!

2.7 Safety instructions for maintenance

- Avoid any operational mode that might be prejudicial to safety!
- Operational readiness and the service life of machines are heavily dependent on maintenance.
- It is therefore in the interest of the machine owner to perform the mandatory maintenance.
- The manufacturer requires the owner to perform maintenance under all circumstances. Otherwise warranty shall not be given in full.
- Observe the adjustment, maintenance and inspection activities and intervals set forth in the Operator's Manual, including information on the replacement of parts/partial equipment! These activities may only be performed by a Wacker Neuson service center.
- The machine may not be serviced, repaired or test-driven by unauthorized personnel.
- Brief operating personnel/operator before beginning special operations and maintenance! Appoint a person to supervise the activities!
- In any work concerning the operation, conversion or adjustment of the machine and its safety-oriented devices, or any work related to maintenance, inspection and repair, observe the start-up and shut-down procedures set forth in the Operator's Manual, and the information on maintenance.
- If required, secure the maintenance area appropriately!
- Prior to performing service, maintenance and repair work, attach warning labels, such as "Repair work – do not start machine!", to the starter or to the control elements. Remove the starting key!
- Perform service, maintenance and repair work only if
    - •the machine is positioned on firm and level ground
    - •Lower the work equipment/attachments to the ground
    - •Stop the engine.
    - •Raise the lock lever
    - •Starting key removed
    - •Move the control levers
    - •The machine has been secured against unintentional movement

- Should maintenance or repair be inevitable with the engine running:
  - •Lower the stabilizer blade and raise the lock lever
  - •Only work in groups of two
  - •Both persons must be authorized for the operation of the machine
  - •One person must be seated on the seat and maintain visual contact with the other person
  - •Observe the specific safety instructions in the work manual
  - •Keep a safe distance from all rotating and moving parts, for example fan blades, V-belt drives, fans, etc.
- Prior to performing assembly work on the machine, ensure that no movable parts will roll away or start moving.
- To avoid accident hazard, parts and large assemblies being moved for replacement purposes must be carefully attached and secured to lifting gear.
  Use only suitable lifting gear and suspension systems in a technically perfect state with appropriate load-bearing capacity!
  Stay clear of suspended loads!
- Have loads fastened and crane operators guided by experienced persons only!
  The person guiding the operator must be within sight or sound of him.
- Disconnect the negative terminal of the battery if work needs to be performed on the electrical system.
- Always use specially designed or otherwise safety-oriented ladders and working platforms to perform overhead assembly work. Never use machine parts or attachments/superstructures as a climbing aid! Wear a safety harness when performing maintenance at greater heights! Keep all handholds, steps, handrails, platforms, landings and ladders free from dirt, snow and ice!
- Clean the machine, especially connections and threaded unions, of any traces of oil, fuel or preservatives before performing maintenance/repair work!
  Do not use aggressive detergents!
  Use lint-free cleaning rags!
- Before cleaning the machine with water, steam jet (high-pressure cleaner) or detergents, cover or tape up all openings which – for safety and functional reasons – must be protected against water, steam or detergent penetration. Special care must be taken with the electrical system.
- After cleaning, remove all covers and tapes applied for that purpose!
- After cleaning, examine all fuel, lubricant and hydraulic oil lines for leaks, chafe marks and damage!
  Rectify all malfunctions without delay!
- Always retighten any threaded fittings that have been loosened during maintenance and repair!

- Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work.
- Ensure that all consumables and replaced parts are disposed of safely and with minimum environmental impact!
- Do not use the work equipment as lifting platforms for persons!
- Before taking up work on machine parts dangerous for life and limb (bruising, cutting), always ensure safe blocking/support of these areas.
- Perform maintenance and repair work beneath a raised machine, attachments or additional equipment only if a safe and secure support has been provided for (the sole use of hydraulic cylinders, jacks, etc. does not sufficiently secure raised machines or equipment/attachments).
- Avoid contact with hot parts, such as the engine block or the exhaust system during the operation of the machine and for some time afterward – burn hazard!
- Remove retainer pins slowly and carefully – injury hazard!
- Using starting fuel is prohibited! This applies in particular if the intake-air preheating is used at the same time – explosion hazard!
- Apply special care when working on the fuel system – increased fire hazard!
- During maintenance, ensure that there is a fire extinguisher on the job site.
- Before performing (maintenance) work on the machine, remove all jewelry, such as rings, watches and bracelets. Tie back long hair, and button up or zip up loose-fitting garments.
  Injury can result from hair, jewelry or garments getting caught on moving parts!
- Always wear a hard hat and safety shoes when performing work or maintenance on the machine. If necessary, wear protective clothing, safety glasses, masks, gloves and ear protectors.

2.8 Warning of special hazards

Electrical energy

- Use only original fuses with the specified current rating!
  Switch off the machine immediately, disconnect the battery and rectify the malfunction if trouble occurs in the electrical system!
- Work on the electrical system may only be performed by a technician with appropriate training, in accordance with the applicable electrical engineering rules.
- Inspect and check the electric equipment of the machine at regular intervals. Malfunctions such as loose connections or scorched cables must be rectified immediately.
- Observe the operating voltage of the machine/attachments!
- Always remove the grounding strap from the battery when working on the electrical system or when performing welding work!
- Starting with battery jumper cables can be hazardous if performed improperly. Observe the safety instructions regarding the battery!
- – *see chapter* *Working near overhead electric lines* on page 2-11
- – *see chapter* *Working in the area of underground electric lines* on page 2-11

Gas, dust, steam, smoke

- Operate the machine only on appropriately ventilated premises! On enclosed premises or before starting the internal combustion engine, ensure that there is sufficient ventilation!
  Observe the regulations in force at the respective site!
- Welding, burning and grinding work on the machine may only be performed by a Wacker Neuson dealer.
- In areas with special hazards (toxic gases, caustic vapors, toxic environments, for example), wear appropriate protective equipment (breathing filters, protective clothing)!

Hydraulic system

- Work on the hydraulic equipment of the machine must be performed only by persons having specific technical knowledge and experience in hydraulic systems!
- Check all lines, hoses and screw connections regularly for leaks and obvious damage! Repair any damage and leaks immediately! Splashed oil can cause injury and fire!
- In accordance with the Operator's Manual/instructions for the respective assembly, release the pressure in all system sections and pressure lines (hydraulic system) to be opened before performing any implementing/repair work!
- Hydraulic lines must be routed and installed properly! Ensure that no connections are interchanged. The fittings, lengths and quality of the hoses must comply with the technical requirements.
- Do not travel across flexible hydraulic lines.
- Do not remove the protective hoses (Dual Power option) from the hydraulic hoses.

Noise

- Never operate the machine without the sound baffles included in the standard equipment of the machine.
- Wear ear protectors if necessary!

Oil, grease and other chemical substances

- When handling oil, grease and other chemical substances (for example battery electrolyte – sulfuric acid), observe the product-related safety regulations (safety data sheet)!
- Be careful when handling hot consumables – burn hazard!
- When using the machine in contaminated areas, take appropriate measures for the protection of the operator and the machine.

Battery

California proposal 65

WARNING

Batteries, battery poles, terminals and corresponding accessory parts contain lead and its compounds and other chemicals that, according to the state of knowledge of the state of California, cause cancer, birth defects or reproductive harm. Wash your hands after use.

WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

- When handling the battery observe the specific safety instructions and regulations relevant to accident prevention. Batteries contain sulfuric acid – caustic!
- Especially when charging batteries, as well as during normal operation of batteries, an oxyhydrogen mixture is formed in the battery cells – explosion hazard!
- Do not attempt to jump-start the machine if the battery is frozen or if the acid level is low; the battery can burst or explode!

  ☞ Dispose of the battery immediately!

Safety instructions regarding internal combustion engines

California proposal 65

WARNING

The engine exhaust fumes of this product contain chemicals that, according to the state of knowledge of the state of California, cause cancer, birth defects or reproductive harm.

WARNING

Diesel engine exhaust fumes and some of its components cause, according to the state of knowledge of the state of California, cancer, birth defects or reproductive harm.

WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

- Internal combustion engines present special hazards during operation and fueling.
- Failure to follow the warnings and safety instructions can cause serious injury or death.
- Keep the area around the exhaust system free of flammable materials.
- Check the engine and fuel system for leaks (for example, loose fuel lines). Don't start or let the engine run in case of leaks.
- Breathing the exhaust fumes causes death very quickly.
- Engine exhaust contains gases you cannot see or smell (for example, carbon monoxide and dioxide).
- Never operate the machine in enclosed premises or areas (for example in pits), if there is no suitable ventilation (for example exhaust-gas filters, suction systems).
- Do not operate the vehicle in potentially explosive areas.
- Do not touch the engine, exhaust system and cooling system as long as the engine is still running or has not cooled down yet.
- Do not remove the radiator cap when the engine is running or hot.
- The coolant is hot, under pressure and can cause serious burns.

Tracks

- Check track tension at regular intervals.
- Repair work on the tracks must be performed by technical personnel or by Wacker Neuson dealers only!
- Malfunctioning tracks reduce the machine's operational safety. Check the tracks regularly for:
  - •Cracks, cuts or other damage
  - •Check track tension at regular intervals

2.9 Hammer operation

- Contact your Wacker Neuson dealer for information on the correct equipment.

Safety instructions

- *– see chapter 2.5 General conduct and safety instructions* on page 2-4
- If there is a risk of material coming off in fragments and splinters, for example when working with a hydraulic hammer, a suitable protection, for example a shatter protection or another suitable protective facility must be installed on the machine.
- During operation, all persons must stay clear of the job site of the machine.
- Do not place the machine directly underneath the workplace during demolition, otherwise parts can fall onto the machine or the building can collapse.
- Do not perform demolition work below the machine, this could cause the machine to tip over.
- The machine can lose its balance and tip over if a hammer or other heavy attachment is used. Proceed as follows to perform work both on level ground and on slopes:
  - ☞ Never turn, lower or set down the attachment abruptly.
  - ☞ Do not extend or retract the boom abruptly, otherwise the machine can tip over.
- Do not use the impact force of the attachment to perform demolition work. Falling demolished parts (for example parts of buildings) can cause injury and/or damage to property and/or the machine.
- Stop vehicle operation immediately if a hydraulic hose moves back and forth in an unusual manner. This could be a cause for a defect. Contact your Wacker Neuson dealer and have the error repaired immediately.

Working with a hammer

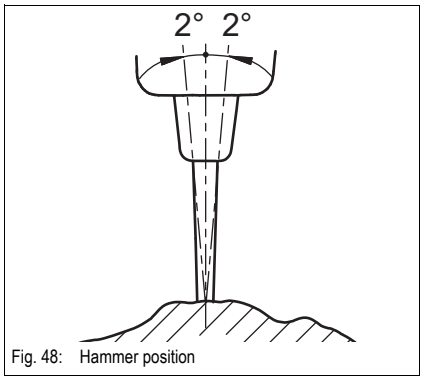


Fig. 48: Hammer position

NOTICE

Bear in mind the following for hammer operation:

•Keep the hammer perpendicular to the surface (max. deviation to all sides is 2°).

•After you have driven the hammer into the material, do not try to fragment the material with movements to the sides.

•Never move the hammer as you drive it into the material.

•Do not operate the hammer in the same spot uninterruptedly for more than 15 seconds.

•If the applied impact force does not break the material, move the hammer to the edge or start again in another place in order to break the material.

•Do not put the hammer into operation if a cylinder is fully extended or retracted.

•Never use the hammer horizontally or upward.

•Do not use the hammer for catching or collecting material.

•Press the hammer firmly against the material to avoid hammer operation without any resistance.

•Do not use the hammer to raise loads.

•Do not hit the hammer against rocks, concrete, etc.

NOTICE

Always observe the following instructions:

•Do not raise the machine with the boom.

•Do not perform any movements with the machine during hammer operation.

•Working with the cylinders and/or the boom fully extended is prohibited.

Dual Power (option)

Operating radius

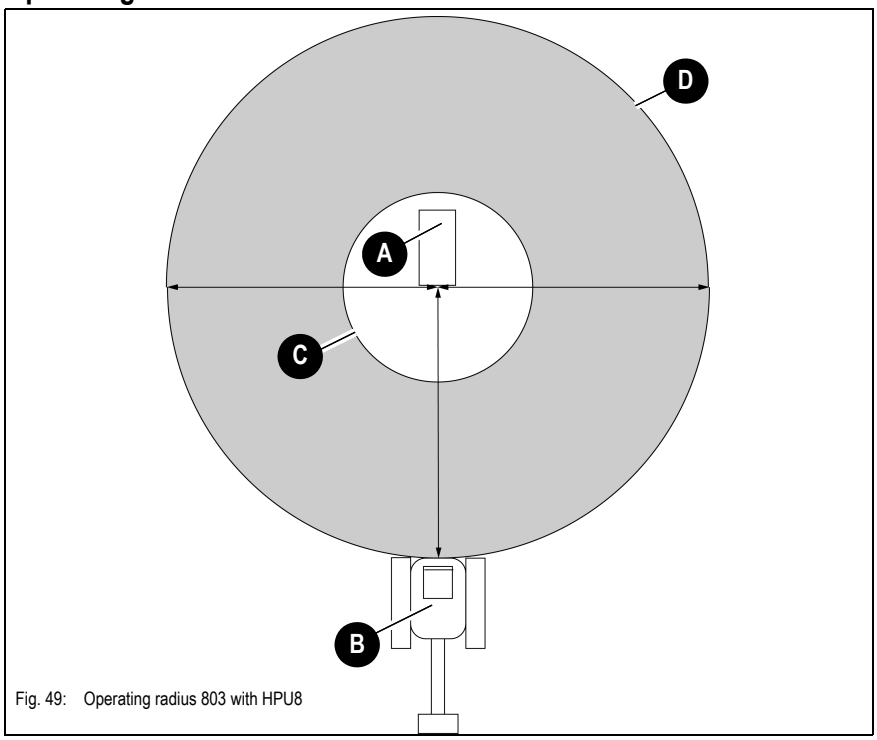


Fig. 49: Operating radius 803 with HPU8

Position	Function
A	Electro-hydraulic power unit HPU8
B	Hydraulic excavator 803
C	Minimum operating radius with connected power unit: 1.5 m/59 in
D	Maximum operating radius with connected power unit: 10 m/33 ft
--	Minimum bending radius of Dual Power hydraulic hoses: 30 cm (12 in)

- The power unit must be at the same level as the excavator.
- Do not pull the power unit with the hydraulic hoses.
- The operator must have permanent visual contact with the power unit.
- Do not travel across hydraulic hoses.
- The protective hoses must be located on the exavator side of the hydraulic hose and must not be removed.
- Do not squeeze hydraulic hoses.
- Do not put hydraulic hoses over edges.
- Do not put anything down on the hydraulic hoses.
- Do not put the connecting cable over edges.

3 Operation

This chapter describes the controls, and contains information on the function and handling of the indicator lights and controls on the control stand.

The pages stated in the table refer to the description of the controls.

A combination of digits, or a combination of digits and letters (for example 40/**18** or 40/**A**) used to identify the control elements, means:
fig. no. 40/control element no. 18 or position **A** in fig. no. 40

Figures carry no numbers if they are placed to the left of the text.

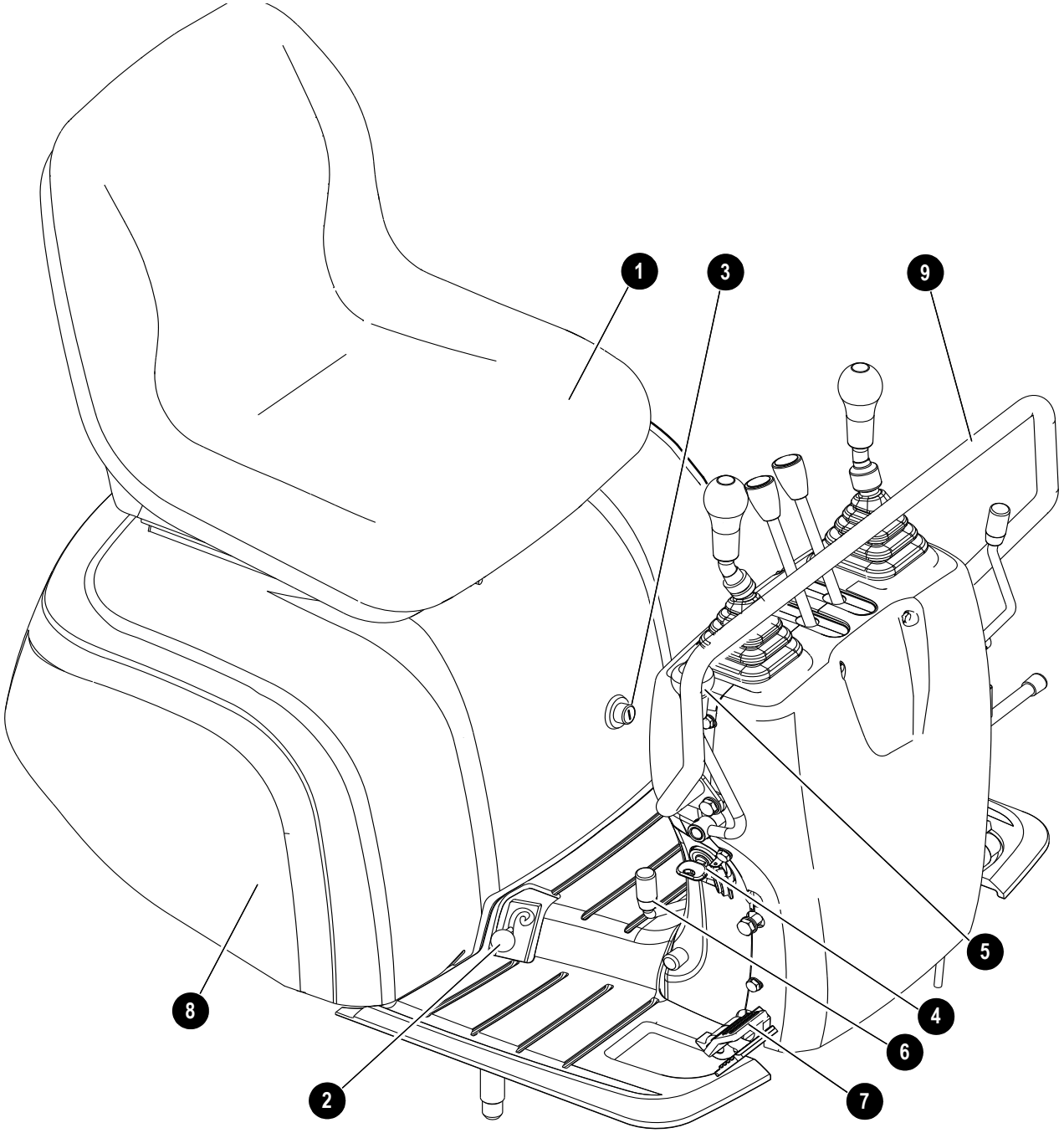
The symbols used in the description have the following meanings:

- Identifies a list
  - Subdivision within lists or an activity. Follow the steps in the recommended order.

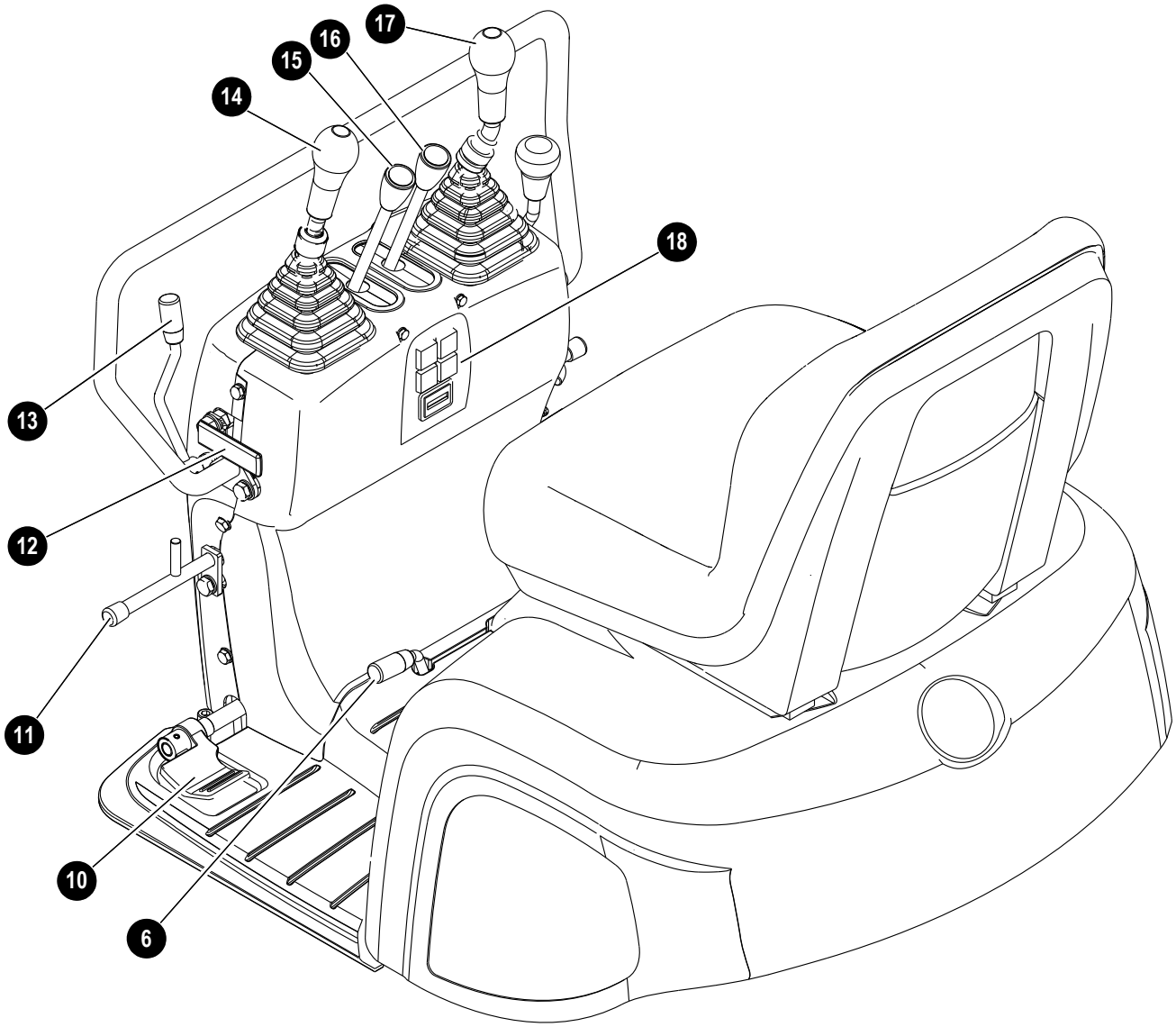
☞ *Identifies an activity*

➥ Description of the effects or results of an activity

3.1 Control stand overview (up to serial no. AI00814)

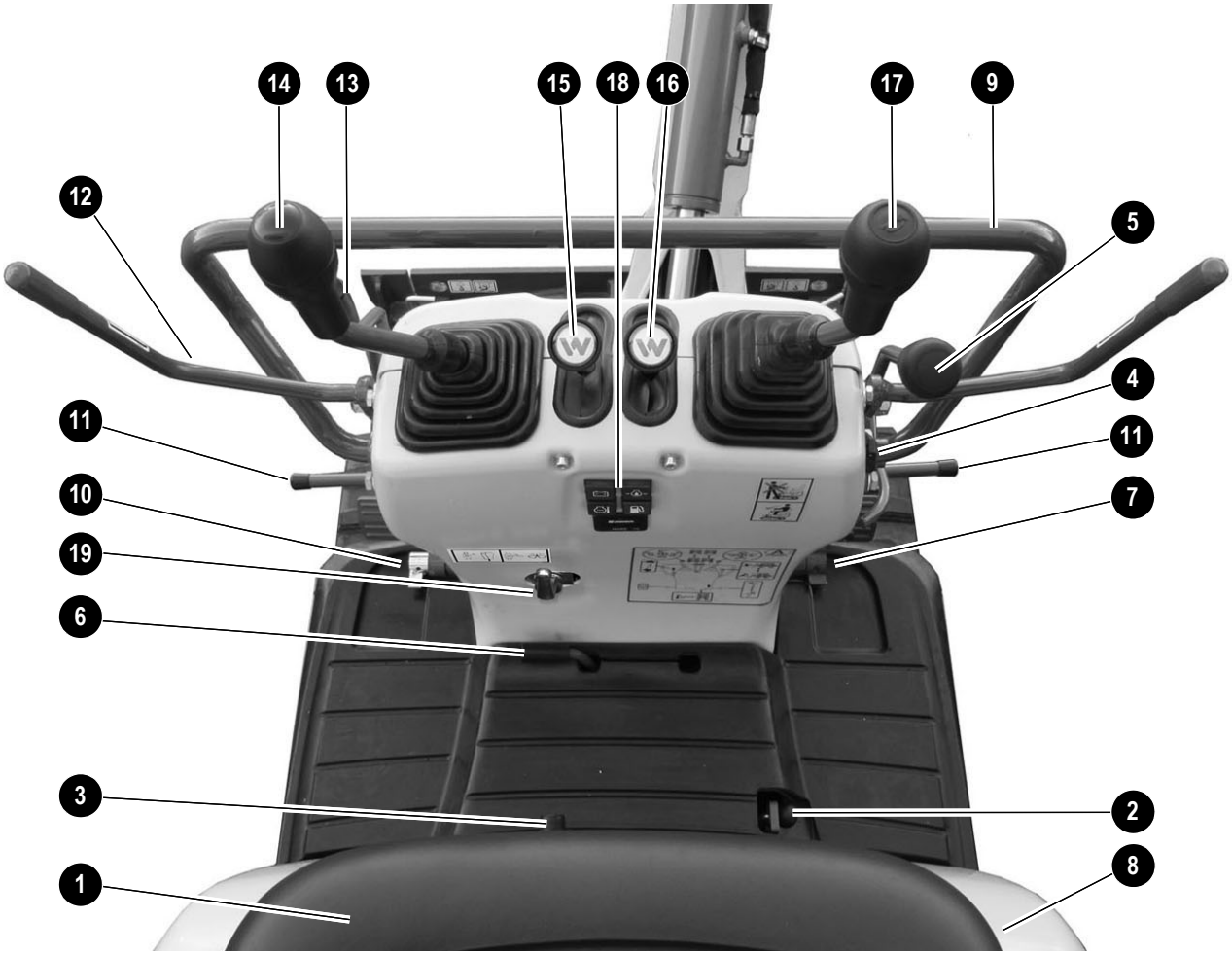


Pos.	Description	See page
1	Operator seat	*3-34*
2	Upper carriage lock	*3-30*
3	Engine cover lock	*3-49*
4	Ignition lock	*3-9*
5	Dozer blade actuation / telescopic undercarriage lever	*3-26,3-28*
6	Changeover dozer blade actuation / telescopic undercarriage lever	*3-28*
7	Boom swivel pedal	*3-62*
8	Engine cover	
9	Handhold	



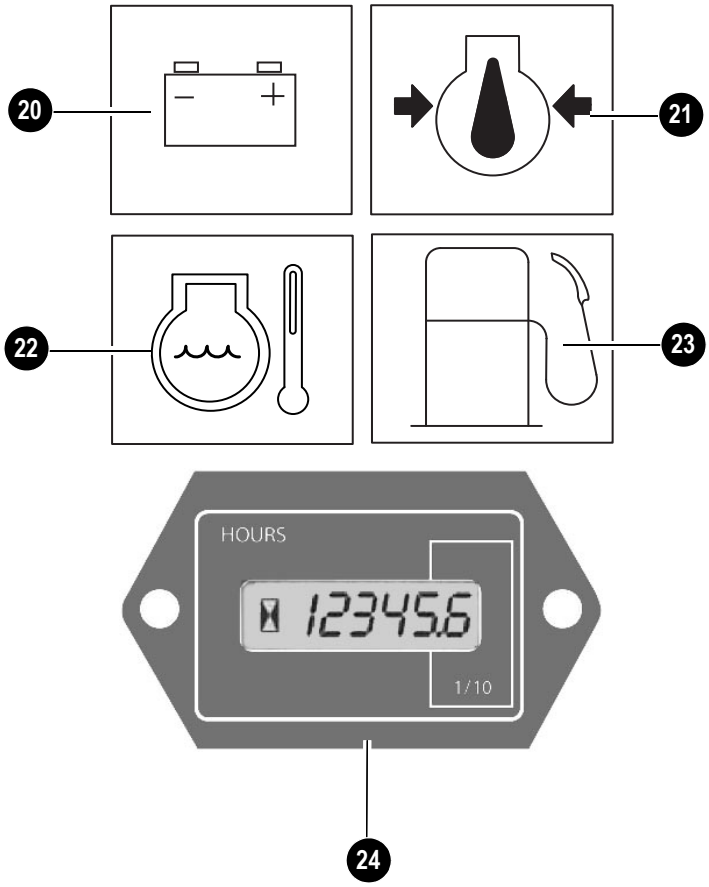
Pos.	Description	See page
10	Auxiliary hydraulics pedal	3-64
11	Footrest	
12	Lock lever	3-71
13	Throttle	3-9
14	Control lever (left)	3-61
15	Drive lever (left)	3-20
16	Drive lever (right)	3-20
17	Control lever (right)	3-61
18	Indicating element	3-5

3.2 Control stand overview (from serial no. AI00815)



Pos.	Description	See page
1	Operator seat	3-34
2	Upper carriage lock	3-30
3	Engine cover lock	3-49
4	Starter	3-9
5	Dozer blade actuation / telescopic undercarriage lever	3-26,3-28
6	Changeover dozer blade actuation / telescopic undercarriage lever	3-28
7	Boom swivel pedal	3-62
8	Engine cover	3-50
9	Handhold	
10	Auxiliary hydraulics pedal	3-64
11	Footrest	
12	Lock lever	3-71
13	Throttle	3-9
14	Control lever (left)	3-61
15	Drive lever (left)	3-20
16	Drive lever (right)	3-20
17	Control lever (right)	3-61
18	Display element	3-5
19	Lever for switching over hammer/grab operation (option)	3-85

3.3 Display elements (overview)



Pos.	Description	See page
20	Indicator light (red) - Charge control	3-10
21	Indicator light (red) – engine oil pressure	3-11
22	Coolant temperature telltale (red)	3-11
23	Indicator light (yellow) – fuel gage	3-12
24	Hour meter	3-12

3.4 Putting into operation

Information!

Machine operation is only allowed when seated on the seat.

Safety instructions

- When climbing up and down, use only the prescribed steps and handholds – *see chapter 3.7 Mounting and dismounting* on page 3-35.
- Never get on a moving machine. Never jump off the machine.
- Observe lift capacity tables.

Putting into operation for the first time and running-in period

Each vehicle is correctly adjusted and checked before it is delivered.

- Before putting the vehicle into operation for the first time, check whether the equipment supplied with the vehicle is complete.
- Check the fluid levels according to chapter "**Maintenance**".
- Handle the vehicle carefully during its first 50 operating hours.
- Do not load a cold engine.
- Warm up the vehicle at low engine speed and little load, do not warm it up at a standstill.
- Do not change engine speed abruptly.
- Avoid using the vehicle under heavy loads or at high speeds.
- Avoid abrupt acceleration, braking and changing travel direction.
- Do not run the engine at high speed for extended periods
- Adhere to maintenance plan – *see chapter 5.16 Maintenance plan (overview)* on page 5-40.

Check lists

The checklists below are intended to assist you in checking and monitoring the machine before, during and after operation.

These checklists are not intended to be exhaustive; They are only intended to support the fulfillment of duty to care.

The checking and monitoring work listed below is described in greater detail in the following chapters.

If the answer to one of the following questions is NO, first rectify the cause of the fault before the machine can be put into operation.

Start-up checklist

Check the following points before putting the machine into operation:

nr.	Question	✔
1	Enough fuel in the tank? (➠ *5-2*)	
2	Coolant level OK? (➠ *5-9*)	
3	Water drained from the water separator? (➠ *5-5*)	
4	Engine oil level OK? (➠ *5-7*)	
5	Oil level in hydraulic oil reservoir OK? (➠ *5-17*)	
7	V-belt condition and tension checked? (➠ *5-14*)	
8	Lubrication points greased? (➠ *5-28*)	
9	Tracks checked for cracks, cuts, etc.? (➠ *5-26*)	
10	Light system, acoustic warning system, indicator and warning lights OK? (➠ *3-33*,*3-10*)	
11	Are the lights and the footholds clean?	
12	Raise the lock lever (➠ *3-71*)	
13	Attachment safely locked? (➠ *3-86*)	
14	Engine cover safely closed and locked? (➠ *3-49*)	
15	Especially after cleaning, maintenance or repair work: ➥ Rags, tools and other loose objects removed?	
16	Seating position adjusted correctly? (➠ *3-34*)	
17	Seat belt fastened (only if the machine is equipped with the rollbar option, and if this rollbar is raised)? (➠ *3-45*)	
18	Anyone in the danger zone of the machine?	
19	Indicator lights for engine oil pressure and alternator charge function illuminate.	
20	In case of dual-power operation: hydraulic oil levels of excavator and electro-hydraulic power unit OK?(➠ *3-76*)	

Operation checklist

After starting the engine, check and observe the following points:

nr.	Question	✔
1	Indicator light for engine and coolant temperature gone out? (➠ *3-5*)	
2	Indicator lights for engine oil pressure and alternator charge function gone out? (➠ *3-10*)	
3	Do the drive levers and pedals work correctly? (➠ *3-20*)	
4	Telescopic travel gear extended? (➠ *3-28*)	

“Parking” checklist

Check and observe the following points when parking the machine:

nr.	Question	✔
1	Attachments lowered to the ground? (➠ *3-31*)	
2	Stabilizer blade lowered to the ground?	
3	Safety lock lever folded up; particularly if the vehicle cannot be supervised? (➠ *3-71*)	
4	Vehicle key removed; particularly if the vehicle cannot be supervised? (➠ *3-31*)	
When parking on public roads:		
5	Machine appropriately secured?	
When parking on slopes:		
6	Vehicle safely parked with arm system and dozer blade? (➠ *3-32*)	

3.5 Driving the excavator

Starter

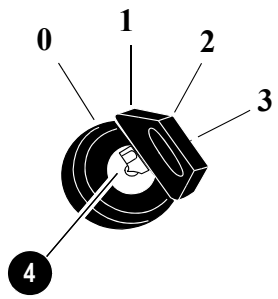


Fig. 50: Ignition lock

Position	Function
0	Switch off ignition
1	Starter ON
2	Preheats the engine
3	Starts the engine

Throttle

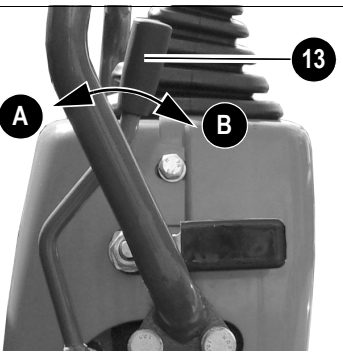


Fig. 51: Engine speed control (up to serial no. AI00814)

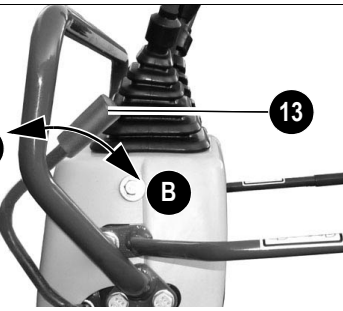


Fig. 52: Engine speed control (from serial no. AI00815)

Speed is set continuously with throttle **13**.

➥ Position **A**: idling speed

➥ Position **B**: max. engine speed

Travel signal (option)

A travel signal sounds as soon as at least one of the tracks moves.

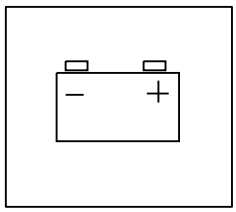
WARNING

Accident hazard during forward/backward vehicle operation!

Danger of crushing that may lead to serious injuries or death.

- Do not allow anyone to stay in the danger zone.
- Despite the traveling signal, the danger zone must also be monitored visually.
- If the travel signal does not sound, stop vehicle operation immediately and contact a Wacker Neuson service center. Follow the relevant national and regional regulations.

Indicator lights and warning lights (overview)



Indicator light (red) - charge control

NOTICE

The coolant pump no longer runs either if the V-belt is faulty. Risk of engine overheating or breakdown!
If the indicator light illuminates with the engine running:

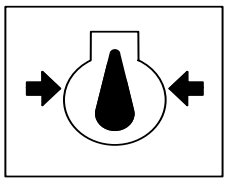
- Stop the engine immediately and have the cause repaired by a Wacker Neuson service center

Illumination while the engine is running indicates a defect in the V-belt or in the charging circuit of the alternator. The battery is no longer charged.

The indicator light illuminates when the starter is engaged on and goes out as soon as the engine runs.

Information!

During operation with an electro-hydraulic power unit, the indicator light illuminates if the battery has to be charged
– see chapter Charging the excavator battery on page 3-80.

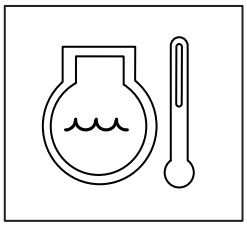


Indicator light (red) – engine oil pressure

Illuminates if the engine oil pressure is too low.

Stop the engine immediately and check the oil level.

The indicator light illuminates when the starter is engaged on and goes out as soon as the engine runs.



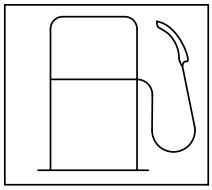
Indicator light (red) – coolant temperature

WARNING

Burn hazard!

Can cause serious injury or death.

- Wait at least 10 minutes after stopping the engine!
- Wear protective gloves and clothing
- Open the cap to the first notch and release the pressure



Fuel level indicator

Refuel if the symbol shown on the left appears.

Hour meter

Counts the operating hours when the engine or the electrohydraulic power unit is running if the machine is equipped with the **Dual Power** option.

Information!

The operating hours are only displayed if the starter is enabled.

Before starting the engine:

☞ *Adjust seat position – see* ***Seat adjustment*** *on page 3-34*

Information!

All controls must be within easy reach. It must be possible to move the drive levers to their end position

Information!

Provide for sufficient ventilation when operating in enclosed areas.

Information!

Machine operation with the rollbar lowered is prohibited *– see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9.

☞ *Fasten your seat belt (rollbar option only) – see* ***Seat belt (option)*** *on page 3-45*

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

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

Starting the engine

- 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 two minutes so the battery can recover and the starter does not overheat before trying again.

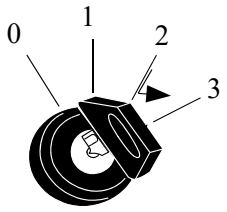


Fig. 53: Starter

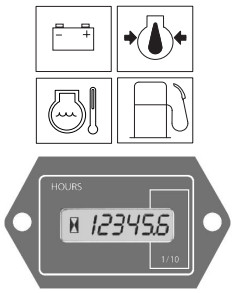


Fig. 54: Display elements

NOTICE

Actuating the preheating system too long can damage the glow elements.

- Do not pre-heat for more than 20 seconds.

☞ *Insert the starting key in the starter*

☞ *Turn the starting key to position **1***

☞ *Check whether all indicator lights are on*

☞ *Have malfunctioning indicator lights immediately replaced*

☞ *Turn the starting key to position **2** and hold it in this position for 15 seconds*

➥ Engine is preheated

☞ *Turn and hold the starting key in position **3** until the engine starts*

➥ If the engine does not start after 10 seconds, interrupt the start procedure and try again after about two minutes

➥ If the engine does not start after the second try, contact an authorized service center.

➥ Release the starting key as soon as the engine runs.

3.6 Starting at low temperatures

Information!

In general, a battery delivers less energy in cold conditions. Therefore ensure that the battery is always well charged.

When the engine has started

☞ *Check whether all indicator lights have gone out:*

☞ *Letting the engine warm up*

At cold temperatures:

☞ *Increase the engine speed slowly*

☞ *Apply full load to the engine only after the warm-up phase*

Engine and machine warm-up

- Once it has started, let the engine warm up about 5 Minutes at slightly increased idling rpm. Actuate the operating hydraulics to warm up the hydraulic oil and the components more quickly.
- Set the engine speed lever to the center position, actuate the operating hydraulics about 5 minutes and repeatedly move the bucket cylinder to the limit for less than 10 seconds.
- Move the engine speed lever to maximum position, move all control levers through all positions so the warm oil can circulate through all hydraulic components.

At temperatures below -18 °C or if the functions still respond slowly, extend the warm-up phase accordingly.

During the warm-up phase, check for unusual noise, exhaust color, leaks, malfunctions or damage. In case of malfunctions, damage or leaks, park and secure the machine, and find out the cause for the damage and have it repaired.

Starting aid

WARNING

Explosion hazard in case of incorrect handling of battery!

Incorrect battery handling can cause serious injury or death.

- Wear protective equipment.
- Fire, open flames and smoking is prohibited
- Do not jump start the engine if the battery is malfunctioning or frozen, or if the acid level is too low.

WARNING

Injury hazard due to rotating parts!

Rotating parts can cause serious injury or death.

- Open the engine cover only at engine standstill.

CAUTION

Burn hazard due to hot surfaces

Can lead to severe burns or even death.

- Stop the engine and let it cool down.
- Wear protective equipment.

NOTICE

Possible damage due to electrical short circuit or over-voltage.

- The positive terminal of the starting battery must not be brought into contact with electrically conductive vehicle components.
- The vehicles must not touch each other during the starting aid.
- If the engine still does not start despite a starting aid, contact a Wacker Neuson service center.

NOTICE

Possible damage due to wrong battery voltage.

- Only use batteries with the same voltage (12 V).

NOTICE

Possible damage to vehicle with empty battery due to voltage peaks.

NOTICE

Possible damage to battery jumper cables when placing them near rotating parts.

- Do not place the battery jumper cables near rotating parts.

Information!

Use only authorized battery jumper cables which conform to national and regional safety requirements.

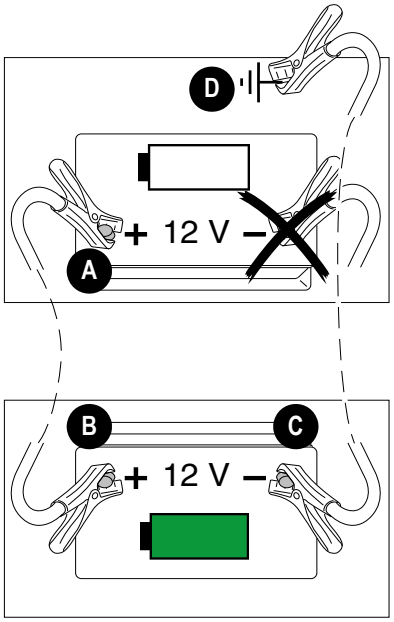


Fig. 55: Starting aid

Designations/symbols	Meaning
X	Machine with empty battery
Y	Vehicle with full battery
A	Positive/vehicle **X**
B	Positive/vehicle **Y**
C	Negative/vehicle **Y**
D	Negative/vehicle **X**
	Full battery
	Dead battery

1 Move vehicle **Y** close to machine **X** so that the length of the battery jumper cables is sufficient.

2 Stop the engine of vehicle **Y**.

3 Engine covers of both vehicles are open.

4 Connect the battery jumper cables in the following order: **A-B/C-D**.

5 Start the engine of vehicle **Y**.

6 Wait five minutes for the empty battery to be charged a little.

7 Start the engine of machine **X**.

8 Switch on the boom light of vehicle **X** in order to avoid voltage peaks and to protect the electronic system.

9 Disconnect the battery jumper cables in the following sequence: **D–C/B–A**.

Machine travel on public roads

Driving on public roads is prohibited.

Machine travel position

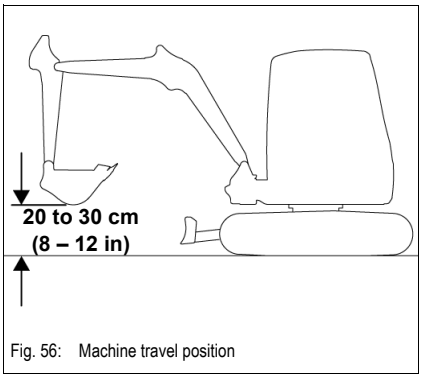


Fig. 56: Machine travel position

- Position the vehicle as shown.
- Center the arm system and raise it approx. 20-30 cm (8-12 in) from the ground.

Starting vehicle travel and stopping

WARNING

Accident hazard due to incorrectly rotated upper carriage!

If rotated incorrectly, the upper carriage blocks the visibility of the travel path.

- Before starting vehicle travel on a construction site, align the upper carriage so that the operator has an unrestricted view of the travel path.

WARNING

Accident hazard! The machine moves in the opposite direction if the upper carriage is rotated by 180°!

Can cause serious injury or death.

- Slowly and carefully actuate the drive levers/pedals

Starting vehicle travel

Operate the drive levers or accelerator pedals.

➥ The vehicle starts moving.

Stopping

Release the drive levers or accelerator pedals.

➥ The machine stops.

Drive levers

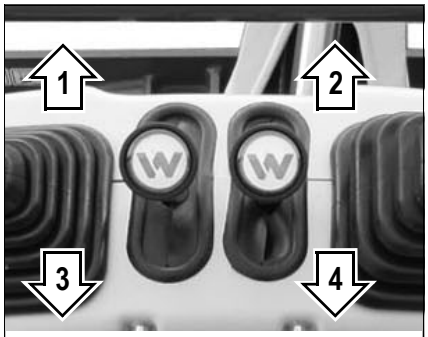


Fig. 57: Drive levers

The stabilizer blade side is the front side.

Raise the attachment and the stabilizer blade.

The travel movements of the machine are controlled with the drive levers.

Lock the upper carriage when traveling over longer distances.

Position	Lever	Function
1 **2**	Push forward Push forward	The tracked excavator moves forward
3 **4**	Pull backward Pull backward	The tracked excavator moves backward
3 **2**	Pull backward Push forward	The tracked excavator turns to the left
1 **4**	Push forward Pull backward	The tracked excavator turns to the right

Forward or reverse travel speed depends on the position of the drive levers and on the engine speed.

Information!

Ensure that both tracks move as you change direction, otherwise the rubber tracks are subject to increased abrasion.

Operating temperature range

Operate the machine only at ambient temperatures between −15°C (5°F) and +38 °C (+100 °F)

ISO/SAE controls (option)

The standard equipment of the vehicle includes ISO controls. SAE controls are available as an option. This results in a different control lever operation.

WARNING

Accident hazard due to modified control mode!

Modified controls can cause incorrect operation, and serious injury or death.

- Before starting work, check the selected control type.

The changeover is located under both covers **1** on the control stand.

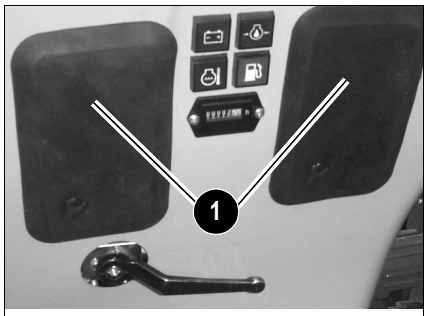


Fig. 58: Control stand covers

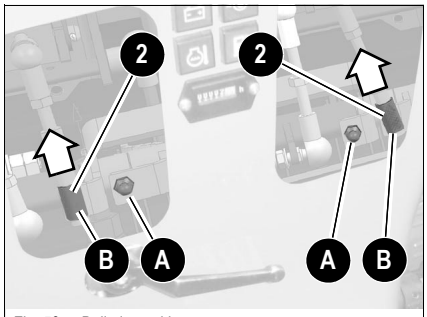


Fig. 59: Ball pin position

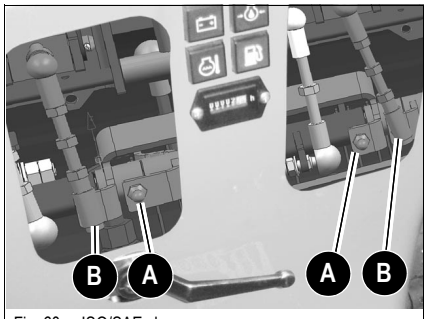


Fig. 60: ISO/SAE changeover

1 Park the machine on level and firm ground, lower the boom to the ground, stop the engine and remove the starting key.

2 Raise covers **1**.

3 Slide the knurled sleeve **2** upward, and hold, unhitch and grease it.

4 Slide the knurled sleeve **2** upward and hitch it into ball pin **A** or **B** as required. The sleeve is safely locked if it is firmly connected with the ball pin and if it is engaged in the lower position.

5 Lower covers **1**.

Controls	
ISO-Control (Europe)	Ball Pin Position **A** (inner)
SAE-Control (US)	Ball Pin Position **B** (outer)

Hydraulic brake

The vehicle will slow down when the drive levers or accelerator pedals are released.

During downhill machine travel, the automatic hydraulic brake valves prevent the machine from moving faster than the permissible travel speed.

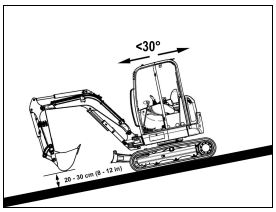
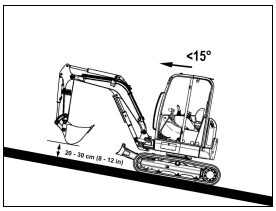
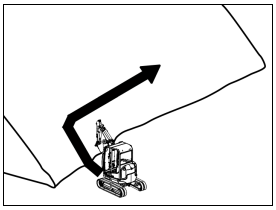
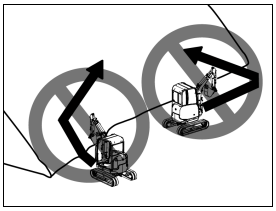
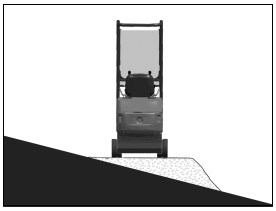
Information!

Reduce the speed with the drive levers or accelerator pedals, and not with the throttle.

Stabilizer blade as a parking brake

The stabilizer blade is used as a parking brake. Press the stabilizer blade against the ground.

Application limits of the vehicle

Application	Description
	**Uphill and downhill travel (boom on downhill side)** Allows up to a slope of 30°
	**Uphill travel (boom on uphill side)** Allows up to a slope of 15°
	**Lateral slope travel** Allows up to a slope of 10°
	**Diagonal drive** Prohibited
	**Working with lateral inclinations** Only permitted on a horizontal, firm and level standing surface

WARNING

Danger of crushing due to the vehicle tipping over!!!

A tipping vehicle can cause serious injury or death.

- Raise the boom 20 – 30 cm (8 – 12 in) off the ground and position it straight ahead at the center of the machine.
- In an emergency, lower the boom immediately to increase stability.
- Travel on slopes only on firm and level ground.
- Adapt the travel speed to the prevailing conditions.
- Pay attention to persons and obstacles.
- Adhere to the application limits of the vehicle.
- Perform uphill and downhill machine travel only in speed range 1.
- Never reverse downhill.
- Ensure that no parts of the body protrude outside the vehicle.
- Do not exceed the permissible payloads.
- Do not turn or swivel the upper carriage and the boom during downhill or uphill vehicle operation with a full attachment.
- Diagonal machine travel is prohibited.

Stones and the humidity in the upper layer of the ground can affect vehicle traction and stability.

The vehicle can slip sideways on gravel or loose, rocky soil. The stability of the vehicle can be reduced on rough terrain.

On soft ground, the vehicle sinks into it or the tracks dig into it. This increases the vehicle angle (maximum gradient angle and maximum lateral angle of inclination), and the vehicle can tip over.

If the engine dies as you perform uphill or downhill vehicle travel, immediately put the control levers to neutral position and restart the engine.

Observe under all circumstances during uphill or downhill travel:

- Keep the drive levers near the neutral position.
- Perform slow and smooth travel movements.
- Avoid sudden travel movements.
- Reduce the engine speed.

The vehicle can slip even on gentle slopes if it travels across grass, leaves, humid metal surfaces, frozen ground or ice.

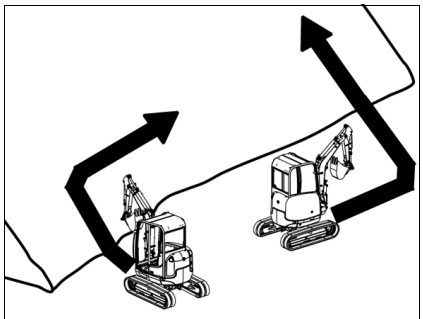


Fig. 61: Driving on slopes

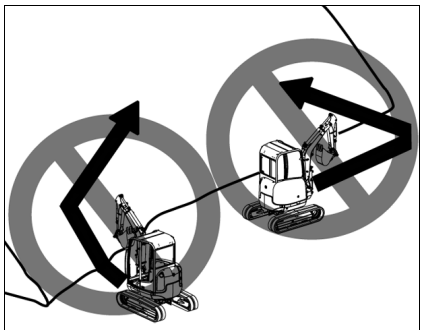


Fig. 62: Travelling diagonally on slopes

Preparations for performing vehicle travel on slopes

Always perform uphill or downhill vehicle travel in a straight line.

If the position changes, do not exceed the application limits.

Information!

Diagonal machine travel is prohibited.

Change position on level ground and then retract straight-ahead onto the slope.

Machine travel on slopes

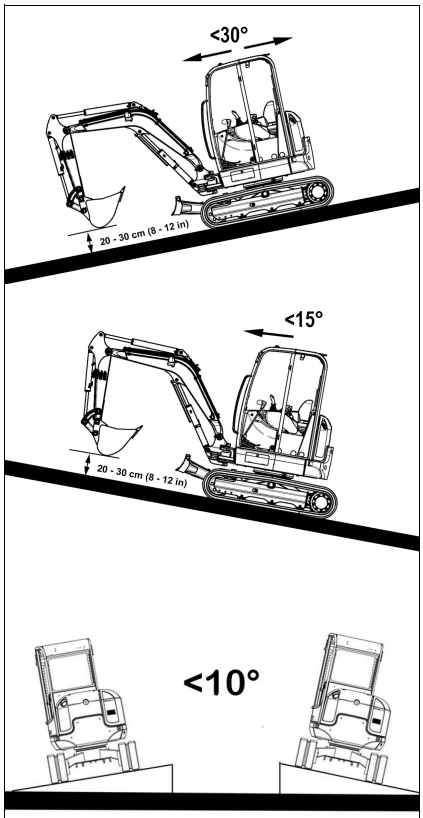


Fig. 63: Machine travel on slopes

Uphill and downhill travel (boom on downhill side)

- Raise the boom 20-30 cm (8-12 in) off the ground and align it at the center of the machine.
- Do not exceed the maximum angle of inclination of 30°.

Uphill travel (boom on uphill side)

- Raise the boom 20-30 cm (8-12 in) off the ground and align it at the center of the machine.
- Do not exceed the maximum angle of inclination of 15°.

Lateral slope travel

- Raise the boom 20-30 cm (8-12 in) off the ground and align it at the center of the machine.
- Do not perform machine travel on slopes with a lateral angle of inclination over 10°.

Working with lateral inclination

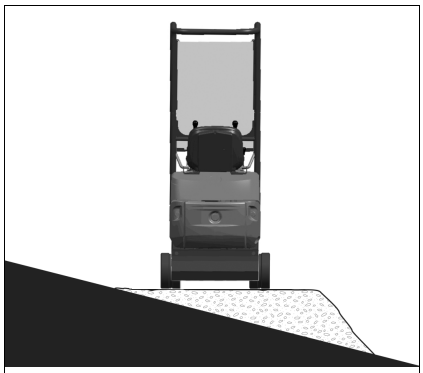


Fig. 64: Platform

On lateral inclination, pile up material to create a horizontal, firm and level standing surface.

Stabilizer blade operation

WARNING

Injury hazard due to operation of stabilizer blade lever!

Can cause serious injury or death.

- Raising the lock lever does not prevent the stabilizer blade from being lowered.
- Do not allow anyone to stay in the danger zone.

NOTICE

Lowering the stabilizer blade too deeply into the ground can create too much resistance .

- Slightly raise the stabilizer blade

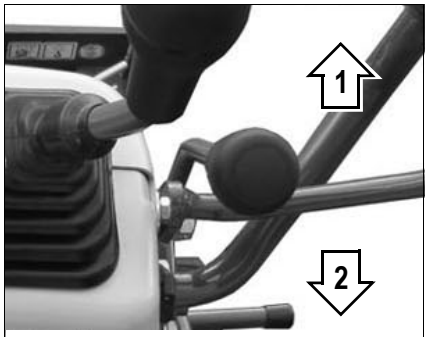


Fig. 65: Stabilizer blade operation

Position	Lever	Function
1	Push forward	Lowers the stabilizer blade
2	Retract	Raises the stabilizer blade

Changing the width of the stabilizer blade

NOTICE

Damage due to different setting of the width of the dozer blade and the undercarriage.

- The dozer blade must have the same width as the undercarriage.

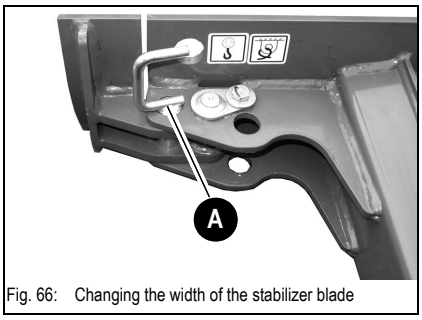


Fig. 66: Changing the width of the stabilizer blade

Reducing the width of the stabilizer blade

☞ *Raise the stabilizer blade to about 1 – 2 cm (about 0.4 – 0.8 in).*

☞ *Pull out the bolts* **A** *left and right.*

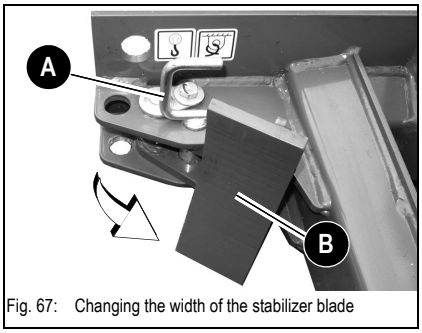


Fig. 67: Changing the width of the stabilizer blade

☞ *Screw in the dozer blade preparation* **B** *left and right.*

☞ *Insert the bolts* **A** *left and right.*

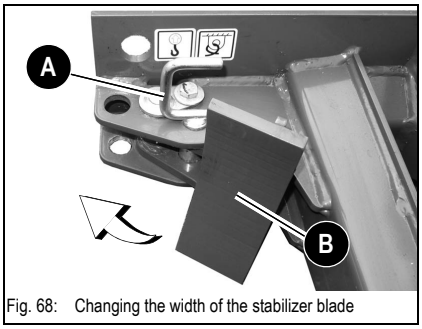


Fig. 68: Changing the width of the stabilizer blade

Increasing the width of the stabilizer blade

☞ *Raise the stabilizer blade to about 1 – 2 cm (about 0.4 – 0.8 in).*

☞ *Pull out the bolts* **A** *left and right.*

☞ *Fold out the dozer blade preparation* **B** *left and right.*

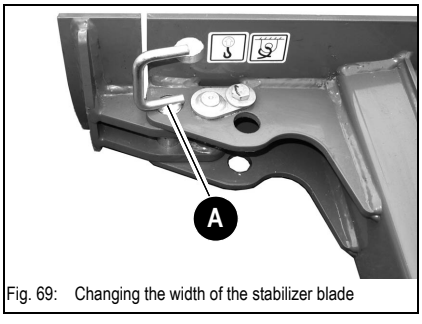


Fig. 69: Changing the width of the stabilizer blade

Insert the bolts **A** *left and right.*

Telescopic travel gear

WARNING

Injury hazard due to tipping over of machine!

A tipping vehicle can cause serious injury or death.

- Only perform work with an extended telescopic travel gear.
- Performing machine travel with a retracted telescopic travel gear is only allowed for machine travel over very short distances through passages. Pay attention to the reduced stability.
- Raise the boom about 20 – 30 cm (8 – 12 in) off the ground and position it straight ahead at the center of the machine.
- If a hose bursts on the telescopic cylinder, lower the boom immediately to prevent the machine from tipping over.
- Extend and retract the travel gear only on horizontal, level and firm ground.
- Retract or extend the telescopic travel gear completely.

WARNING

Crushing hazard when retracting the telescopic travel gear!

Retracting and extending the telescopic travel gear can cause serious crushing of body parts.

- Do not allow anyone to stay in the danger zone.
- Retract or extend the telescopic travel gear completely.

NOTICE

Damage to machine when travelling through passages.

- The dozer blade and telescopic travel gear must have the same width.

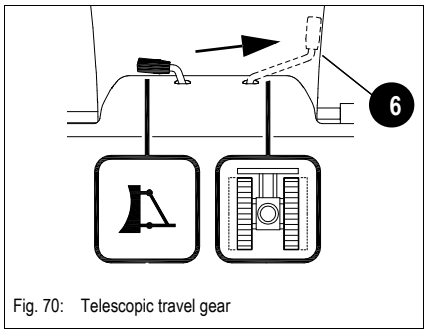


Fig. 70: Telescopic travel gear

☞ *Move lever* **6** *to the final right-hand position*

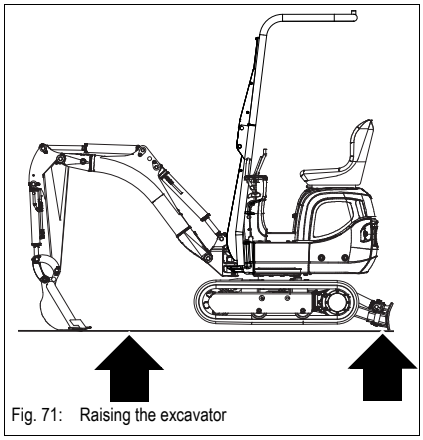


Fig. 71: Raising the excavator

☞ *Raise the machine evenly and horizontally by means of the boom and the stabilizer blade*

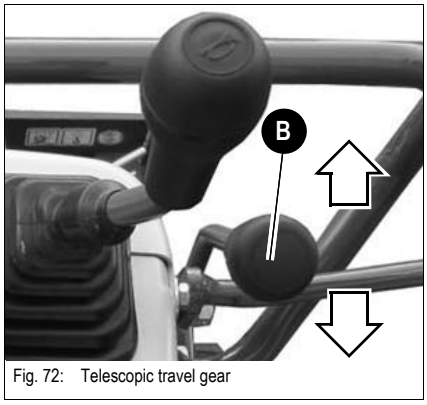


Fig. 72: Telescopic travel gear

Telescopic travel gear	Position
Extend	Push lever **B** forwards.
Retract	Pull lever **B** towards rear.

Information!

Actuate lever **B** until the landing gear has reached its end position.

Upper carriage lock

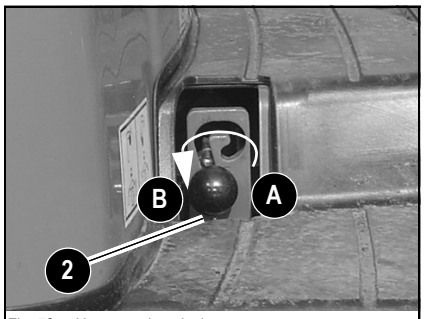


Fig. 73: Upper carriage lock

WARNING

Accident hazard due to incorrect transportation!

Can cause serious injury or death.

- Lock the upper carriage.
- Secure the machine and the implements correctly.

The upper carriage locking device prevents the upper carriage from twisting during longer journeys or during transport.

Locking the upper carriage

☞ *Pull lever* **2** *from position* ***A*** *to position* ***B***

Unlocking the upper carriage

☞ *Push lever* **2** *from position* ***B*** *to position* ***A***

Parking the machine

WARNING

Accident hazard due to incorrect parking!

Can cause serious injury or death.

- Park the machine on level ground.
- Press the boom and the stabilizer blade against the ground.

☞ *Stop the vehicle.*

☞ *Press the boom and the stabilizer blade against the ground.*

☞ *Reduce engine speed completely.*

NOTICE

Never stop the engine under full load, otherwise it can be damaged due to overheating. Except in case of an emergency, always ensure that the engine can cool down before it is stopped.

- Run the engine for one minute without load at idle speed and only then switch it off.

☞ *Secure the machine against unauthorized operation.*

☞ *Raise the lock lever.*

☞ *Remove the starting key and carry it with you.*

Parking the machine on slopes

WARNING

Crushing hazard due to unintentional actuation!

Can cause serious injury or death.

- Raise the lock lever before leaving the seat.

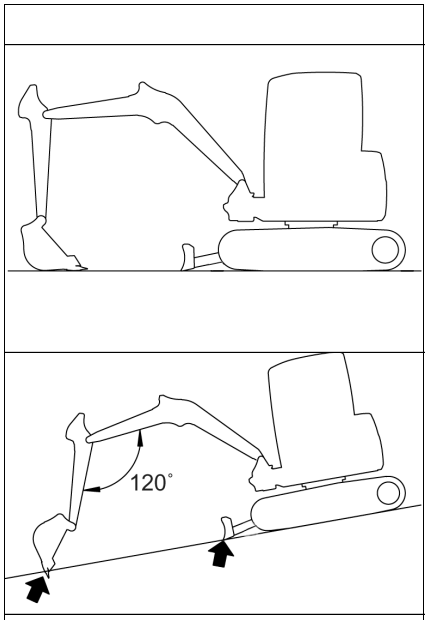


Fig. 74: Parking the machine on slopes

- Park the vehicle on firm, level, and horizontal ground. Never park on slopes. If you cannot avoid parking the machine on a slope:

☞ Press the bucket onto the ground on the downhill side of the machine.

☞ Place the stabilizer blade downhill and press it against the ground.

Light system

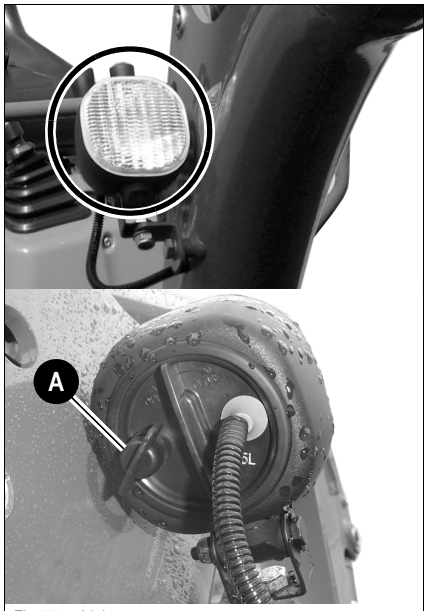


Fig. 75: Light system

The working light is located on the right on the boom.

The working light can be switched on with switch **A** as soon as the starting key is in position “1”.

The switch has several positions and can be turned.

Therefore continue turning switch **A** by one notch to switch the working light on or off.

Information!

The Dual Power option includes a power-saving LED light – *see chapter* ***LED working light*** on page 3-83

Power outlet

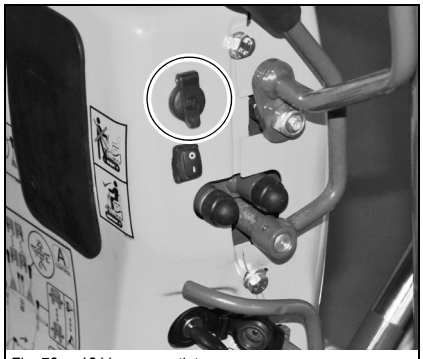


Fig. 76: 12 V power outlet

The control stand is equipped with a 12 V outlet on the right. This makes it possible to operate a 12 V rotating beacon, for example.

NOTICE

There must be no consumer connected to the 12 V outlet during Dual-Power operation.

- The 12 V outlet may only be used during diesel operation, since the battery is not charged during Dual-Power operation – *see chapter* ***Charging the excavator battery*** on page 3-80.

Seat adjustment

WARNING

Accident hazard when adjusting the operator seat during machine operation!

Can cause serious injury or death.

- Adjust the correct seating position.
- Do not adjust the operator seat during operation.

Fig. 77: Seat adjustment

Horizontal adjustment:

☞ *Sit down on the operator seat.*

☞ *The operator must touch the backrest with his back.*

☞ *Pull lever **H** upward and at the same time*

☞ *Move the seat forward or backward*

3.7 Mounting and dismounting

CAUTION

Risk of injury when mounting and dismounting!

Improper mounting and dismounting can lead to injuries.

- Keep prescribed step **A** and handle grip **B** clean and use only these for mounting and dismounting.
- Mount and dismount facing the vehicle.
- Have damaged stages and handles replaced. Do not operate the vehicle
- Telescopic travel gear must be extended completely

Fig. 78: Mounting/Dismounting ROPS-Bars

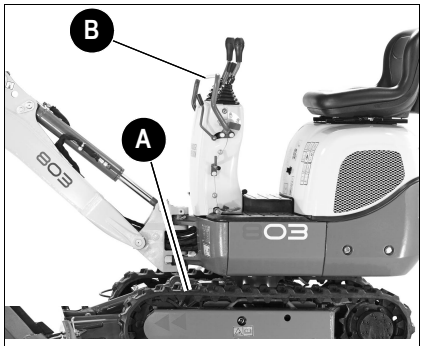


Fig. 79: Mounting/Dismounting

Use steps **A** and handholds **B** when mounting and dismounting. Do not use controls as handholds.

Two hands and one foot must always be in contact with the vehicle when mounting and dismounting.

3.8 Lowerable TOPS rollbar (up to serial no. AI00966) (option)

WARNING

Accident hazard during machine operation with a lowered rollbar.

Can cause serious injury or death.

- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
- Depending on the situation, traveling over very short distances with a lowered roll bar is allowed (in case of low clearance heights, for example) – *see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9.

WARNING

Injury hazard due to unfastened seat belt!

Can cause serious injury or death.

- Use the seat belt only if the rollbar is raised!

WARNING

Injury hazard due to damaged rollbar!

Can cause serious injury or death.

- Machine operation with a damaged rollbar is prohibited. Contact a Wacker Neuson service center.

NOTICE

The boom must not be moved if the rollbar is lowered!

Lowering the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Fully raise the boom*
☞ *Pull the stick toward the machine*
☞ *Tilt in the bucket*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to lower it, the rollbar must be held by one person on either side.

☞ *Remove the lock nuts and screws **A** on either side*

Fig. 80: Lowering the rollbar

☞ *Slowly and carefully lower the rollbar*


Fig. 81: Lowering the rollbar

Raising the rollbar

Fig. 82: Raising the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to raise it, the rollbar must be held by one person on either side.

☞ *Slowly and carefully raise the rollbar*
☞ *Re-insert the screws on either side* **A** *and secure them with new lock nuts* **A**

NOTICE
Replace the lock nuts every time they are loosened.

3.9 Lowerable ROPS rollbar (up to serial no. AI00966) (option)

WARNING

Accident hazard during machine operation with a lowered rollbar.

Can cause serious injury or death.

- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
- Depending on the situation, traveling over very short distances with a lowered roll bar is allowed (in case of low clearance heights, for example) – *see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9.

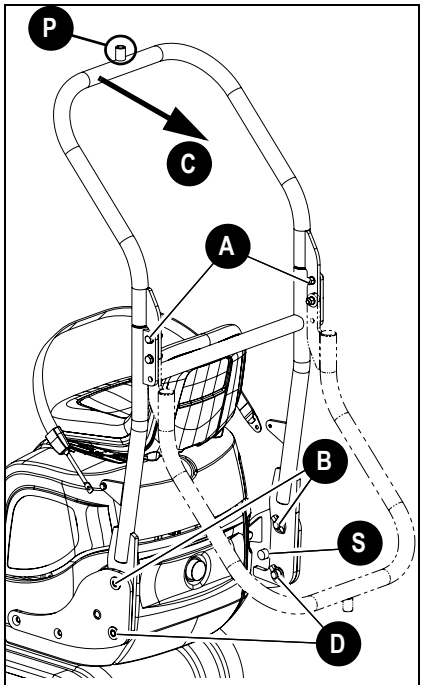


Fig. 83: Lowerable ROPS rollbar (option)

WARNING

Injury hazard due to unfastened seat belt!

Can cause serious injury or death.

- Use the seat belt only if the rollbar is raised!

WARNING

Injury hazard due to damaged rollbar!

Can cause serious injury or death.

- Machine operation with a damaged rollbar is prohibited. Contact a Wacker Neuson service center.

NOTICE

The boom must not be moved if the rollbar is lowered!

Bracket **P** for installing a rotating beacon is located on top of the rollbar.

Lowering the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to lower it, the rollbar must be held by one person on either side.

☞ *Remove the lock nuts and screws **A** on either side*
☞ *Slowly and carefully lower the rollbar*
☞ *Insert the screws again on either side and secure them with the lock nuts*

NOTICE
Replace the lock nuts every time they are loosened.

Raising the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to raise it, the rollbar must be held by one person on either side.

☞ *Remove the lock nuts and screws **A** on either side*
☞ *Slowly and carefully raise the rollbar*
☞ *Insert the screws again on either side and secure them with the lock nuts*

NOTICE
Replace the lock nuts every time they are loosened.

Lowering the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to lower it, the rollbar must be held by one person on either side.

☞ *Remove the split pins and pins **B** on either side*
☞ *Slowly and carefully lower the rollbar toward **C** to the limit **S**.*

Raising the rollbar

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

Information!

In order to raise it, the rollbar must be held by one person on either side.

☞ *Slowly and carefully raise the rollbar*
☞ *Fit pins **B** again on either side and secure them with the split pins*

3.10 Lowerable ROPS rollbar (from serial no. AI00967) (option)

WARNING

Accident hazard during machine operation with a lowered rollbar.

Can cause serious injury or death.

- Machine operation is only allowed if the rollbar is raised and locked, and if the seat belt is fastened.
- Depending on the situation, traveling over very short distances with a lowered roll bar is allowed (in case of low clearance heights, for example) – *see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9.

WARNING

Injury hazard due to unfastened seat belt!

Can cause serious injury or death.

- Use the seat belt only if the rollbar is raised!

WARNING

Injury hazard due to damaged rollbar!

Can cause serious injury or death.

- Machine operation with a damaged rollbar is prohibited. Contact a Wacker Neuson service center.

NOTICE

The boom must not be moved if the rollbar is lowered!

Lowering the rollbar

Information!

Remove the window if the machine is equipped with the shatter protection option – *see chapter 3.11* ***Shatter protection (option) (from serial no. AI00967)*** on page 3-57.

☞ *Stop the machine on firm, level and horizontal ground*
☞ *Fully raise the boom*
☞ *Pull the stick toward the machine*
☞ *Tilt in the bucket*
☞ *Position the boom straight ahead*
☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key*

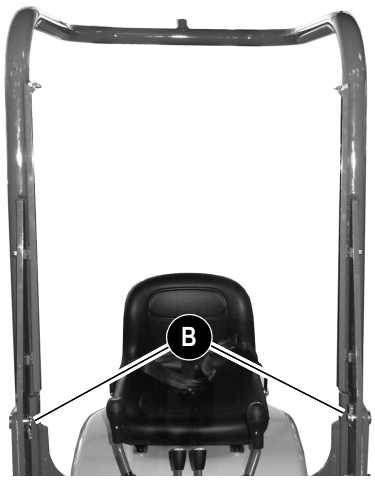


Fig. 84: Lowering the rollbar

Information!

In order to lower it, the rollbar must be held by one person on either side.

☞ *Remove the linch pins and bolts* **B** *on either side*

Fig. 85: Rollbar lowered

☞ *Slowly and carefully lower the rollbar as far as it will go*

Raising the rollbar

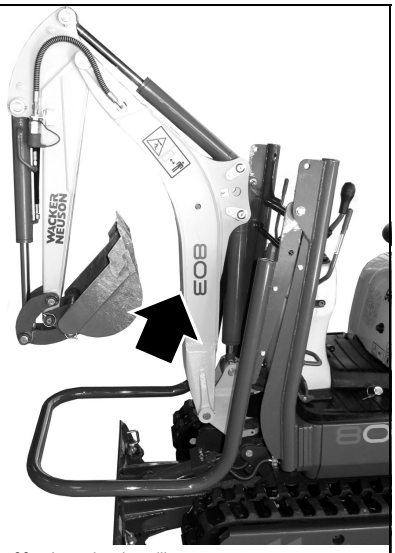


Fig. 86: Lowering the rollbar

☞ *Stop the machine on firm, level and horizontal ground*

☞ *Stop the engine.*

☞ *Raise the lock lever*

☞ *Remove the starting key*

Information!

In order to raise it, the rollbar must be held by one person on either side.

☞ *Slowly and carefully lower the rollbar*

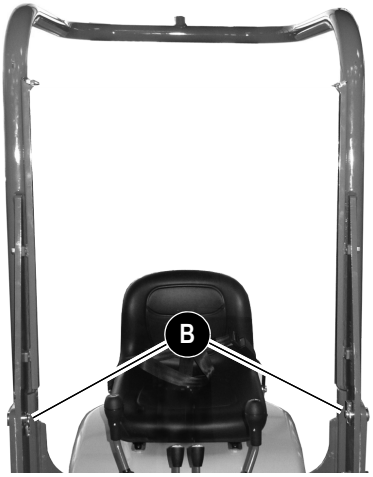


Fig. 87: Lowering the rollbar

☞ *Install the linch pins and bolts* **B** *on either side*

Fig. 88: Rotating beacon bracket

Rotating beacon bracket

Bracket **P** for installing a rotating beacon is located on top of the rollbar.

Seat belt (option)

Seat belt (up to serial no. AI01200)

WARNING

Injury hazard during machine operation without fastening the seat belt!

Can cause serious injury or death.

- Firmly fasten your seat belt over your hips before starting the engine.
- Do not loosen the seat belt while the engine is running. This also applies to the work interruptions.
- Seat belt must not be twisted.
- Do not place the seat belt over hard, edged or fragile items (tools, rulers, glasses, pen) carried inside your clothes.
- Never buckle up 2 persons with one seat belt.
- Check the seat belt condition regularly. Have damaged parts immediately replaced by a Wacker Neuson service center.
- Always keep the seat belt clean, as coarse dirt can impair proper functioning.
- The belt buckle must not be dirty, otherwise the buckle latch cannot engage.
- Depending on the situation, traveling over very short distances with a lowered rollbar is allowed (in case of low clearance heights, for example)
  – *see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9
  – *see chapter* ***Operation with lowered TOPS rollbar (up to serial no. AI00966)*** on page 2-9.

After an accident the belt strap is stretched and no longer serviceable. In an accident, the seat belt does not provide enough safety!

- Replace the seat belt after an accident.
- Have fastening points and seat fixture checked for bearing capacity.

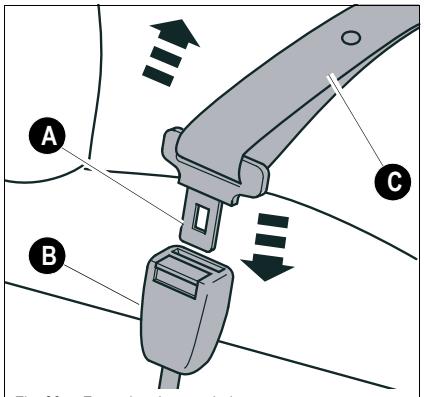


Fig. 89: Fastening the seat belt

Fastening the seat belt:

- Hold the belt at buckle latch **A** and run it slowly and steadily over the hips to buckle **B**
- Insert buckle latch **A** into buckle **B** until it locks into place audibly
- Tighten the seat belt by pulling at its end

  ➥The seat belt must be tightly in place over the hips!

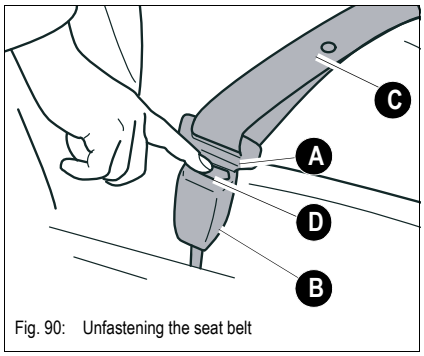


Fig. 90: Unfastening the seat belt

Unfastening the seat belt:

- Hold the seat belt
- Press button **D** on buckle **B**

  ➥Buckle latch **A** is unlocked
- Unfastening the seat belt

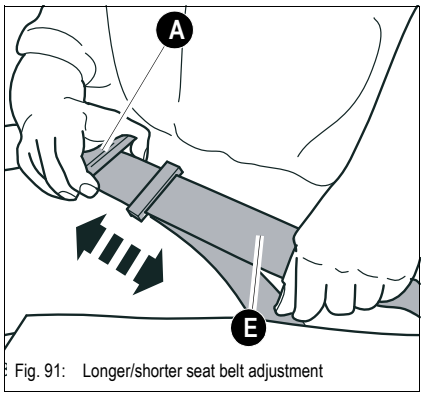


Fig. 91: Longer/shorter seat belt adjustment

Longer/shorter seat belt adjustment:

- Hold buckle latch **A** at a right angle to the seat belt and pull the seat belt to the required length
- To shorten the seat belt, just pull the free end **E** of the belt

Retracting seat belt (from serial no. AI01201))

WARNING

Injury hazard during machine operation without fastening the seat belt!

Can cause serious injury or death.

- Firmly fasten your seat belt over your pelvis before starting the engine.
- Do not loosen the seat belt while the engine is running. This also applies to the work interruptions
- Seat belt must not be twisted.
- Do not place the seat belt over hard, edged or fragile items (tools, rulers, glasses, pen) carried inside your clothes.
- Never buckle up 2 persons with one seat belt.
- Check the seat belt condition regularly. Have damaged parts immediately replaced by a Wacker Neuson service center.
- Always keep the seat belt clean, as coarse dirt can impair proper functioning.
- Seat belt buckle must not be obstructed by foreign bodies, otherwise the buckle latch cannot lock into place.
- Depending on the situation, traveling over very short distances with a lowered rollbar is allowed (in case of low clearance heights, for example) – *see chapter* ***Operation with lowered ROPS rollbar*** on page 2-9.

After an accident the belt strap is stretched and no longer serviceable. In an accident, the seat belt does not provide enough safety!

- Replace the seat belt after an accident.
- Have fastening points and seat fixture checked for bearing capacity.

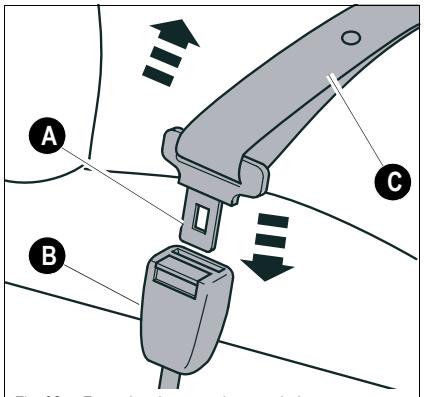


Fig. 92: Fastening the retracting seat belt

Fastening the retracting seat belt:

☞ *Fasten the retracting seat belt as follows before starting the machine:*

- Hold the belt at buckle latch **A** and run it slowly and steadily over the hips to buckle **B**
- Insert buckle latch **A** into buckle **B** until it engages audibly **(pull test)**

  ➥The retracting seat belt must be tightly in place over the hips!

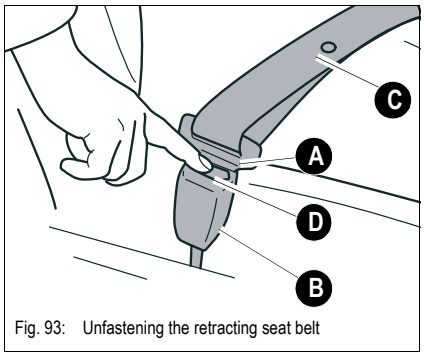


Fig. 93: Unfastening the retracting seat belt

Unfastening the retracting seat belt:

☞ *Unfasten retracting seat belt **C** as follows:*

- Hold the retracting seat belt
- Press button **D** on buckle **B**

  ➥Latch **A** is released by spring pressure
- Unfastening the retracting seat belt

Engine cover

WARNING

Injury hazard due to rotating parts!

Rotating parts can cause serious injury or death.

- Open the engine cover only at engine standstill.
- Raise the lock lever.

WARNING

Burn hazard due to hot surfaces!

Can lead to severe burns or even death.

- Stop the engine and let hot surfaces cool down.
- Wear protective equipment.
- Raise the lock lever.

CAUTION

Danger of burns if maintenance access is opened!

Can cause injury.

- Take care to avoid injuries when the maintenance access door is open.

Information!

Close and lock the engine cover after finishing work in the engine compartment.

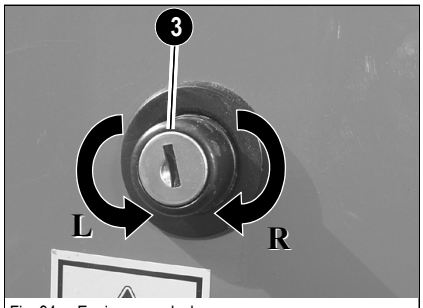


Fig. 94: Engine cover lock

Opening:

☞ *Press lock* **3**

☞ *Pull the engine cover upward*

Closing:

☞ *Firmly press down the engine cover until lock* **3** *engages with an audible click*

Locking and unlocking:

☞ *Turn the starting key in lock* **3** *to the* ***left*** *(**L**)*

➥ Engine cover locked

☞ *Turn the starting key in lock* **3** *to the* ***right*** *(**R**)*

➥ Engine cover unlocked

Fig. 95: Open engine cover

Opening the engine cover

☞ *Press lock and open engine cover.*

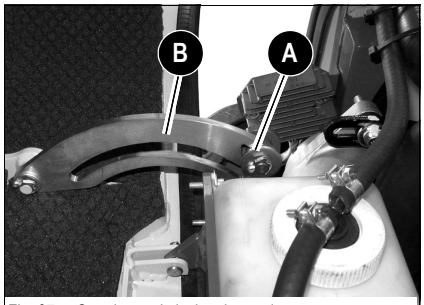


Fig. 97: Opening and closing the engine cover

☞ *Let the engine cover engage in position* **A**.

- It is locked by letting curved rail **B** engage in position **A**.

Closing the engine cover

☞ *Lift bar* ***B*** *so that the engine cover is unlocked.*

☞ *Lower the engine cover slowly.*

☞ *Ensure that the engine cover closes correctly.*

☞ *Close the engine cover.*

☞ *Lock the engine cover.*

Battery master switch

From serial number WNCE0801VPAL01769, the vehicle has a battery isolator switch.

WARNING

Danger of accident from interrupted electric power supply in the HPU operation!

Can cause serious injury or death.

- The HPU operation with interrupted electric power supply is forbidden, since safety-related functions (e.g. light, horn) do not work.

NOTICE

Possible damage to the electronics due to improper actuation of the battery master switch.

- Do not operate the battery master switch with a running engine.
- Operate the battery master switch no sooner than two minutes after shutting down the engine.

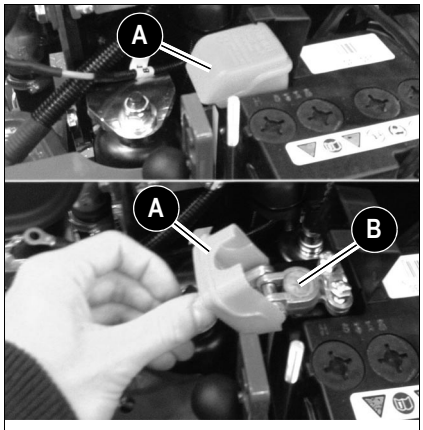


Fig. 98: Battery master switch

The battery isolator switch is located under the engine hood.

Interrupt the electric power supply:

Flip up the battery isolator switch **A** and remove from the **B** positive terminal.

Establish the electric power supply:

Set the battery isolator switch **A** to the positive terminal **B** and fold down.

Towing the vehicle

WARNING

Accident hazard due to incorrect towing!

Incorrect towing can cause accidents and serious injury or death.

- Tow the machine away only from the immediate danger zone until it can be loaded.
- Only tow the vehicle using suitable towing equipment in connection with suitable towing facilities, such as towing hooks, eyes, etc.
- There must be nobody between the vehicles during towing.
- The lateral safety distance is equal to 1.5 times the length of the towing equipment.
- Do not tow the vehicle if it is stuck or on a slope. Load the vehicle.
- Wear protective equipment.
- Start vehicle travel and tow away slowly.

NOTICE

The vehicle can be damaged during towing.

- Tow the machine away only from the immediate danger zone until it can be loaded.
- Tow away the vehicle only if the engine is running and if the drive is functional.
- Do not tow the vehicle if it is stuck or on a slope. Load the vehicle.
- Only tow the vehicle using suitable towing equipment in connection with suitable towing facilities, such as towing hooks, eyes, etc.
- A tractor vehicle of the same weight category must be used as a minimum.
- In addition, the tractor vehicle must be equipped with a safe braking system and sufficient tractive power.

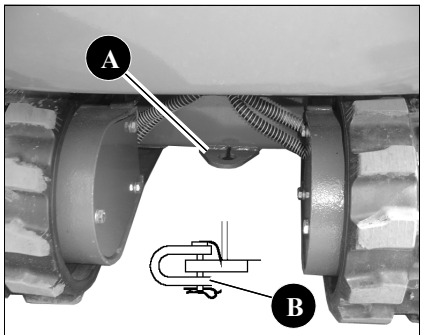


Fig. 99: Towing bore

1 Ensure that the vehicle can be towed safely.
2 Use recover eye **A** only for recovery.
3 Secure shackle **B** with the shackle pin and a lock pin.
4 Install towing equipment of appropriate size on the shackle.
5 Start vehicle travel and tow away slowly.
6 Tow the vehicle only until it reaches a position from where it can be loaded.

Information!

The manufacturer's warranty shall not apply to accidents or damage caused by towing. It is prohibited to use the recovery eye A to tow another vehicle or to attach other equipment.

Crane handling the machine

WARNING

Accident hazard due to incorrect loading!

Incorrect loading can cause accidents and serious injury or death.

- Do not allow anyone to stay in the danger zone.
- Bear in mind the transport weight on the vehicle's type label.
- Observe the loading weight. Add the weight of subsequently installed accessories to the weight of the vehicle.
- The vehicle may only be raised with suitable lifting gear.

NOTICE

In order to avoid damage to the machine and the lifting gear:

- Fold down the roll bar while the crane is being loaded.
  – *see* ***Lowering the rollbar*** on page 3-43.
- Remove the window if the machine is equipped with the shatter protection option
  – *see* ***Shatter protection (option) (from serial no. AI00967)*** on page 3-57.

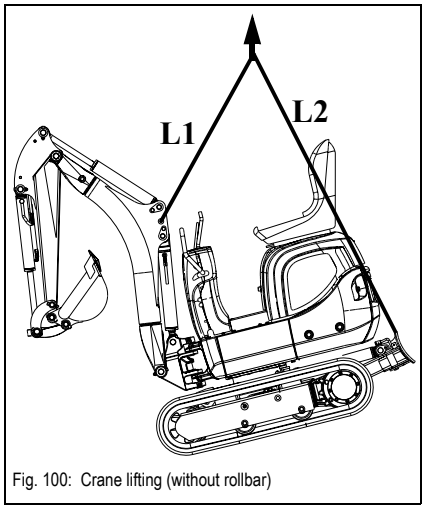


Fig. 100: Crane lifting (without rollbar)

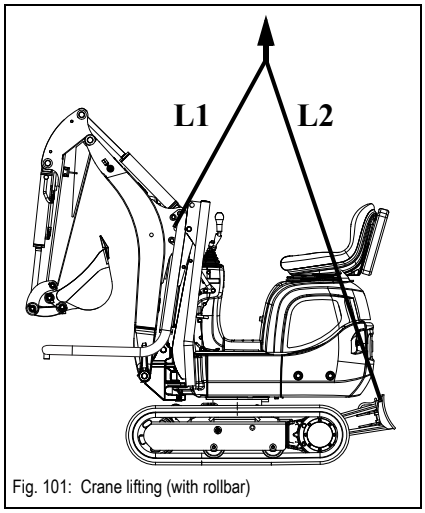


Fig. 101: Crane lifting (with rollbar)

1 Fit an empty bucket and lock it safely.
2 Remove all dirt from the vehicle.
3 Park the vehicle on firm, level, and horizontal ground.
4 Screw in the bucket and lower it to the transport position.
5 Fully raise the boom.
6 Pull the stick toward the vehicle.
7 Raise the stabilizer blade (it must be at the rear).
8 Position the boom straight ahead at the center of the vehicle.
9 Stop the engine.
10 Raise the lock lever.
11 Remove the starting key and carry it with you.

12 Remove loose objects from the vehicle.
13 Leave the vehicle, close the covers and lock them.
14 Remove the window if the machine is equipped with the shatter protection option. Lower the rollbar if the machine is equipped with this option.
15 Install suitable slings at the points provided for lifting the machine.
16 Install the lifting gear at the point on the boom provided for lifting the machine.
17 Install the lifting gear at the points on the stabilizer blade provided for lifting the machine.

☞ Ensure that the lifting gear has the required lengths **L1** and **L2**.

Length	Dimension
L1	1054 mm (42 in)
L2	1718 mm (68 in)

18 Slowly raise the vehicle until there is no more contact with the ground.
19 Wait until the machine does not swing any more.
20 If the balance, and the condition and position of the slings are correct, slowly raise the machine to the required height and load it.
21 After loading the vehicle, fold up the roll bar.

Loading and transporting the machine

- The transport vehicle must be of sufficient size.
- Remove contamination from the track chains.

WARNING

Accident hazard due to incorrect loading or transportation!

Can cause serious injury or death.

- Observe safety instructions.

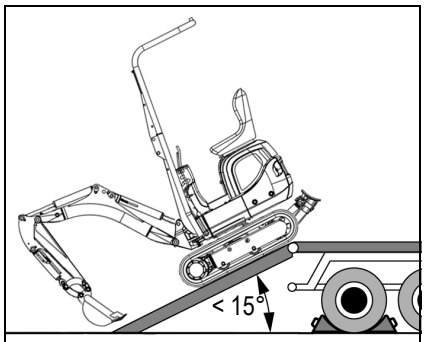


Fig. 102: Access ramps

- Secure the transport vehicle with chocks to prevent it from rolling.
- Up to the 2nd quarter of 2014 (shatter protection without upper cross brace): Remove the shatter protection if the machine is transported on an open platform.
- From the 3rd quarter of 2014:
  Check the safe position of the split pins on the left and right.
  – see chapter ***Installing (from the 3rd quarter of 2014)*** on page 3-60
  If an additional cross brace is installed (from the 3rd quarter of 2014), the shatter protection does not have to be removed before transporting the machine on an open platform.
- Place the access ramps at the smallest possible angle. Ensure that the grade does not exceed 15° (17 %). Use access ramps with an anti-skid surface only.
- Ensure that the loading area is clear and access to it is not obstructed – for example by superstructures
- Ensure that the drive-up ramps and the track chains of the excavator are free from contaminants
- Start the engine of the excavator
- Raise the boom enough so that it will not touch the access ramps
- Rotate the upper carriage to the rear (see figure **102**)
- Carefully drive the excavator onto the middle of the transport vehicle
- Move the excavator to transport position
- Switch off the engine and fold up the safety lock lever
- Remove the starting key
- Close and lock the engine cover

Information!

The manufacturer's warranty shall not apply to accidents or damage caused by loading or transporting.

- Secure the vehicle against unintentional movement.

Tying down the machine

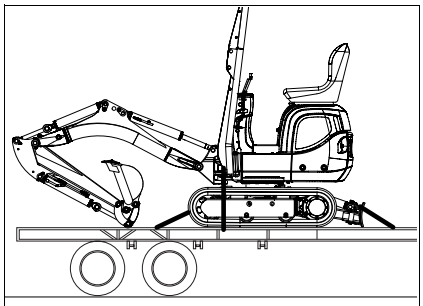
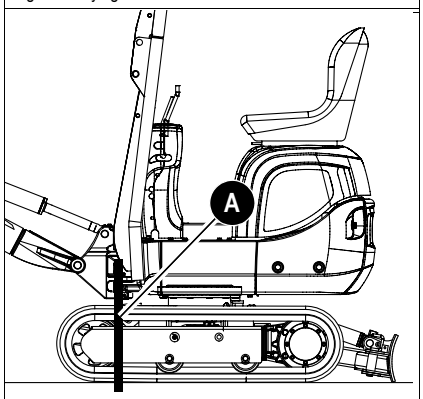


Fig. 103: Tying down the excavator



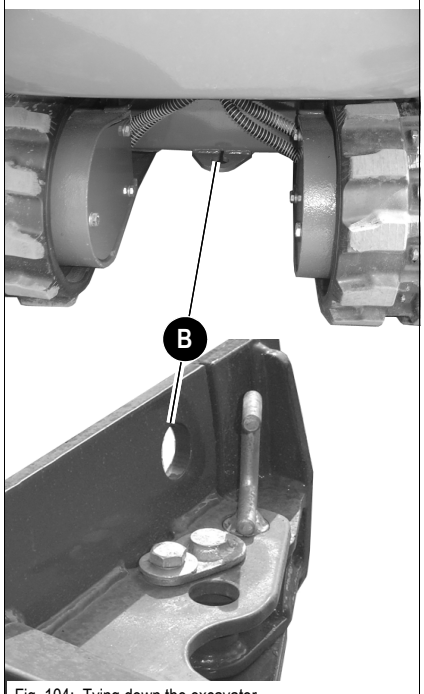


Fig. 104: Tying down the excavator

- Ensure that the authorized maximum height is not exceeded
- Lock the upper carriage.
- Lower the stabilizer blade and the boom.
- Securely anchor the excavator on the loading area at the swivel bracket using sufficiently dimensioned tensioning belts or chains **A** .
- Securely anchor the excavator to the loading area at the lashing eyes **B** using sufficiently dimensioned tensioning belts or chains.
- Ensure that 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!

NOTICE

Damage during lashing.

- Use edge protectors.

3.11 Shatter protection (option) (from serial no. AI00967)

WARNING

Danger of piercing/penetration by objects from the front!

Can cause serious injury or death.

- A shatter protection must be installed on a canopy version if an attachment (for example a hammer) causes fragments to fly around. This shatter protection takes over the function of a front window.
- Note restricted work area (see Fig. 107).
- It is forbidden to operate the vehicle without the splinter guard.
- For 803 machines up to serial no. AI00966, operation with an attachment causing fragments to fly around is absolutely prohibited since no shatter protection can be installed up to this serial number.

WARNING

Accident hazard in conditions of restricted visibility due to rain, snowfall, dust, etc.!

Can cause serious injury or death.

- Stop machine operation immediately.

Information!

The shatter protection protects the operator against fragments from the front.

- The vehicle owner must ensure that the hazard situation is evaluated and that the national regulations are observed.
- The vehicle owner must ensure that only work is performed that does not require any higher protection.
- Accidents cannot be fully avoided despite equipping a vehicle with protective structures.

Information!

Do not use brushes, steel wool or other abrasive cleaners for cleaning the polycarbonate disk. Do not wipe dust in a dry state.

Information!

Protective structures may only be installed or removed by a Wacker Neuson service center.

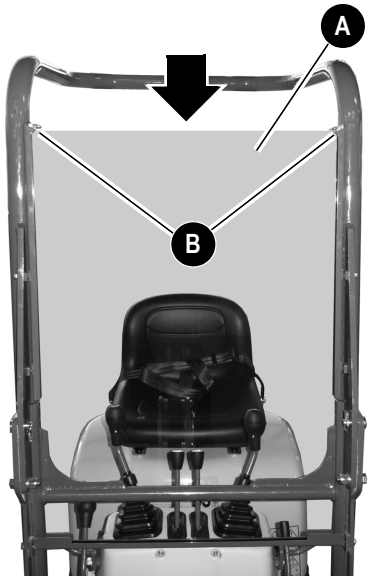


Fig. 105: Installing the shatter protection (up to the 2nd quarter of 2014)

Installing (up to the 2nd quarter of 2014)

1 Lower the boom to the ground.

2 Stop the engine.

3 Raise the lock lever

4 Remove the starting key

5 With the help of two persons, carefully slide shatter protection **A** from above into the guide rails.

6 Secure the shatter protection on either side with two linch pins **B**.

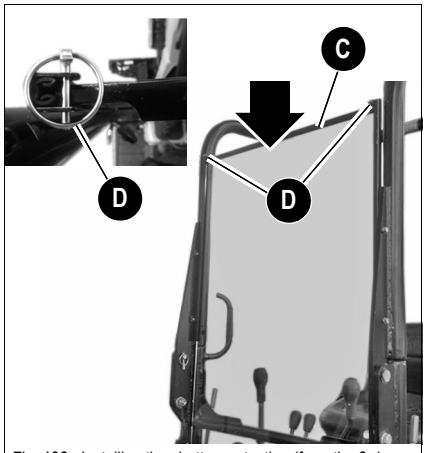


Fig. 106: Installing the shatter protection (from the 3rd quarter of 2014)

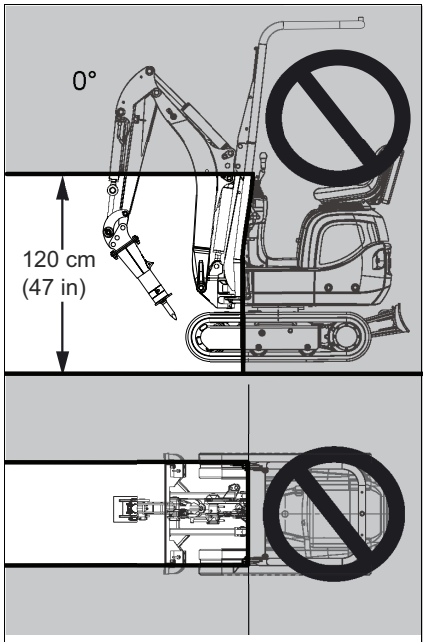


Fig. 107: Work area with shatter protection

Installing (from the 3rd quarter of 2014)

Perform steps 1 – 6 as described above.

☞ *Secure the shatter protection with cross brace* **C** *and one split pin* **D** *on the left and right.*

Removing

Remove in the reverse order.

Job site

Height of job site: 120 cm (47 in).

The figures refer to work with a Wacker Neuson hydraulic hammer.

Information!

Working with another attachment can modify the height of the job site.

3.12 Control lever overview

Information!

Moving a control lever quickly causes the corresponding function to be performed quickly. Moving a control lever slowly causes the corresponding function to be performed slowly.

Control lever on the left

WARNING

Accident hazard due to boom operation!

Can cause serious injury or death.

- Raise the lock lever

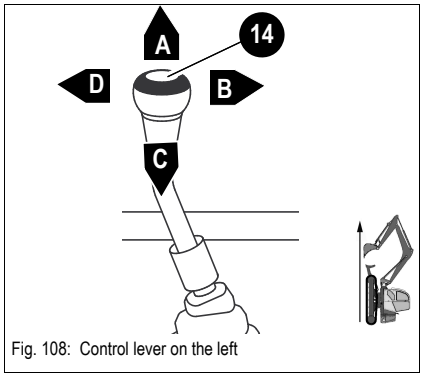


Fig. 108: Control lever on the left

Position	Lever	Function
A	☞ *Forward*	➥ Stick is extended
B	☞ *To the right*	➥ Upper carriage rotates to the right
C	☞ *Backward*	➥ Stick is retracted
D	☞ *To the left*	➥ Upper carriage rotates to the left

Control lever on the right

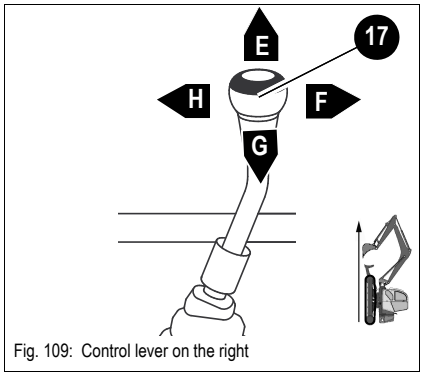


Fig. 109: Control lever on the right

Position	Lever	Function
E	☞ *Forward*	➥ Lowers the boom
F	☞ *To the right*	➥ Tilt out the bucket
G	☞ *Backward*	➥ Raises the boom
H	☞ *To the left*	➥ Tilt in the bucket

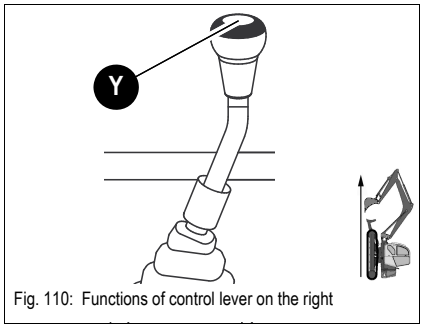


Fig. 110: Functions of control lever on the right

Button	Function
Y	➥ Horn

3.13 Boom swivel controls

WARNING

Injury hazard when operating the boom swivel mechanism!

The **boom swing** cannot be locked by folding up the safety lock lever or the foot pedal. This can cause serious injury or death.

- Press the pedal carefully, otherwise the boom is actuated earlier than required.
- In order to minimize the risk of unintentional operation, flip the pedal forward after swiveling the boom.

Boom swivel controls (up to serial no. AI00975)

WARNING

Injury hazard when operating the boom swivel mechanism!

Can cause serious injury or death.

- In order to minimize the risk of unintentional operation, flip the pedal forward after swiveling the boom.

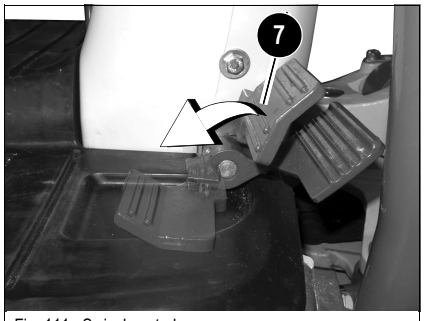


Fig. 111: Swivel controls

☞ *Unfold the right-hand pedal* **7**

➥ The boom can be swiveled

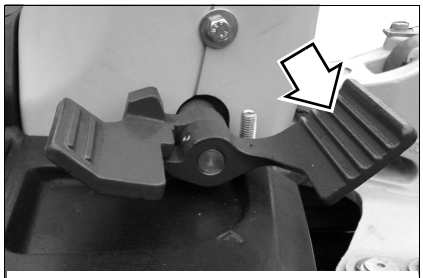


Fig. 112: Actuating the swiveling mechanism

Swiveling the boom to the left:

☞ *Press the front half of the right-hand pedal*

➥ Boom swivels to the left

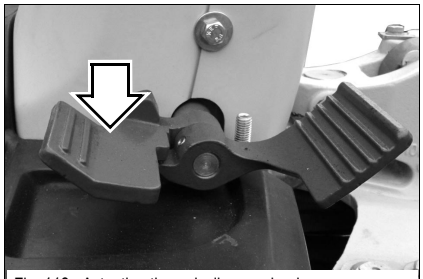


Fig. 113: Actuating the swiveling mechanism

Swiveling the boom to the right:

☞ *Press the rear half of the right-hand pedal*

➥ Boom swivels to the right

Boom swivel controls (from serial no. AI00976)

WARNING

Injury hazard when operating the boom swivel mechanism!

Can cause serious injury or death.

- The pedal is secured with a torsion spring. The pedal flips forward when it is released, but is not locked.

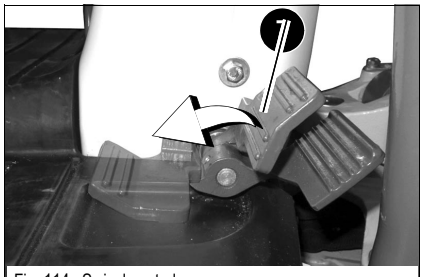


Fig. 114: Swivel controls

☞ *Unfold the right-hand pedal* **7**

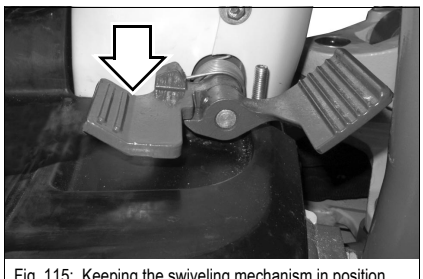


Fig. 115: Keeping the swiveling mechanism in position

☞ *Keep the right-hand pedal in position but do not press it*

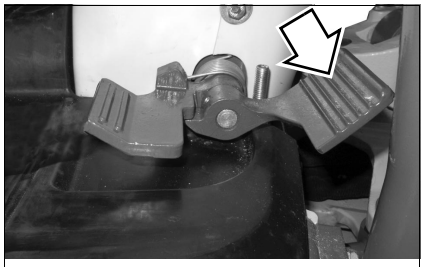


Fig. 116: Actuating the swiveling mechanism

Swiveling the boom to the left:

☞ *Press the front half of the right-hand pedal*

➥ Boom swivels to the left

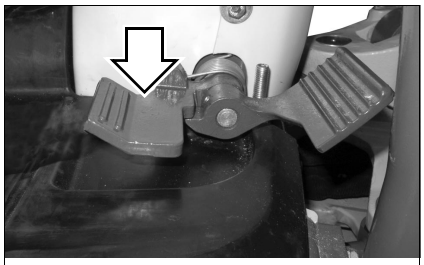


Fig. 117: Actuating the swiveling mechanism

Swiveling the boom to the right:

☞ *Press the rear half of the right-hand pedal*

➥ Boom swivels to the right

3.14 Auxiliary hydraulics

WARNING

Injury hazard due to auxiliary hydraulics operation!

The **auxiliary hydraulics** function cannot be locked by folding up the safety lock lever or folding up the foot pedal. This can cause serious injury or death.

- Press the pedal carefully, otherwise the auxiliary hydraulics is actuated earlier than required.

Auxiliary hydraulics (up to serial no. AI00975)

WARNING

Injury hazard due to auxiliary hydraulics operation!

Can cause serious injury or death.

- In order to minimize the risk of unintentional operation, flip the pedal forward after actuating the auxiliary hydraulics.

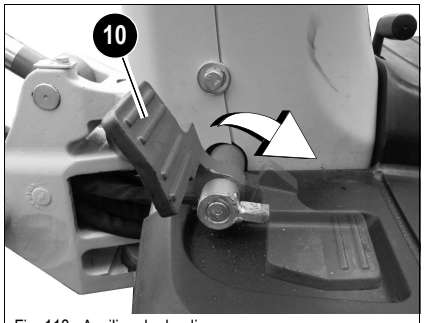


Fig. 118: Auxiliary hydraulics

☞ *Unfold the left-hand pedal **10***

➥ Auxiliary hydraulics can be actuated

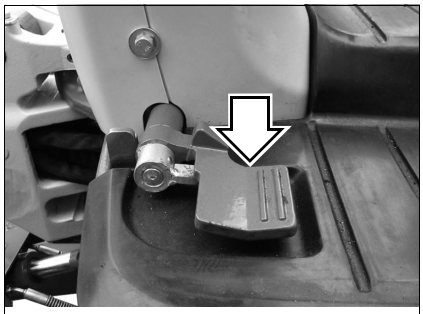


Fig. 119: Actuating the auxiliary hydraulics

Actuating the auxiliary hydraulics:

☞ *Press the left-hand pedal*

➥ Oil flows through the auxiliary hydraulics line

Auxiliary hydraulics (from serial no. AI00976)

WARNING

Injury hazard due to auxiliary hydraulics operation!

Can cause serious injury or death.

- The pedal is secured with a torsion spring. The pedal flips forward when it is released, but is not locked.

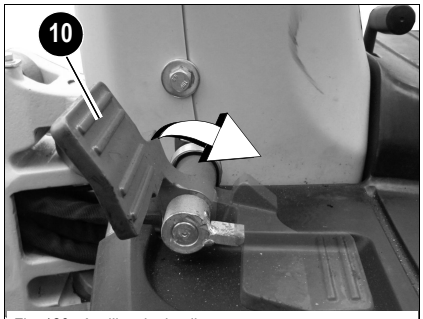


Fig. 120: Auxiliary hydraulics

☞ *Unfold the left-hand pedal **10***

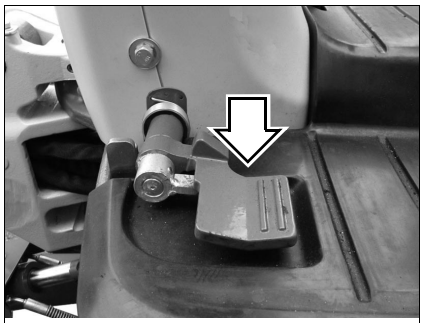


Fig. 121: Actuating the auxiliary hydraulics

☞ *Keep the left-hand pedal in position but do not press it*

Actuating the auxiliary hydraulics:

☞ *Press the left-hand pedal*

➥ Oil flows through the auxiliary hydraulics line

Auxiliary hydraulics (double-action option) (up to serial no. AI00975)

WARNING

Injury hazard due to auxiliary hydraulics operation!

Can cause serious injury or death.

- In order to minimize the risk of unintentional operation, flip the pedal forward after actuating the auxiliary hydraulics.

Information!

Follow the instructions in the Operator's Manual of the attachment manufacturer for connecting the auxiliary hydraulics to an attachment.

Hammer/grab operation changeover

Use lever **19** to switch between hammer mode and grab mode.

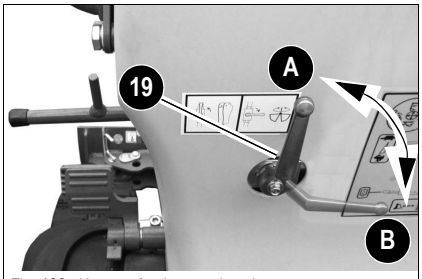


Fig. 122: Hammer/grab operation changeover

Position	Lever	Function
A	☞ *Turn lever* **19** *upward*	➥ Hammer operation
B	☞ *Turn lever* **19** *to the right*	➥ Grab operation

Hammer operation enabled

➥ Oil flows to the hammer through the pressure line and to the reservoir through the return line.

Grab operation enabled

- Press the pedal backward – the grab rotates to the left.
- Press the pedal forward – the grab rotates to the right.

➥ Oil flows forward through the left or right-hand pressure line.

Information!

Check the auxiliary hydraulics pedal for correct function.

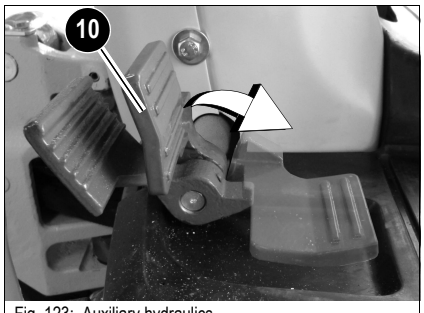


Fig. 123: Auxiliary hydraulics

☞ *Unfold the left-hand pedal **10***

➥ Auxiliary hydraulics can be actuated

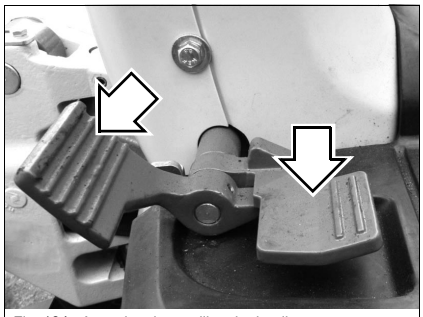


Fig. 124: Actuating the auxiliary hydraulics

Actuating the auxiliary hydraulics:

☞ *The left-hand pedal can be pressed forward or backward*

➥ Oil flows through the auxiliary hydraulics line

Auxiliary hydraulics (double-action option) (from serial no. AI00976)

WARNING

Injury hazard due to auxiliary hydraulics operation!

Can cause serious injury or death.

- The pedal is secured with a torsion spring. The pedal flips forward when it is released, but is not locked.

Information!

Follow the instructions in the Operator's Manual of the attachment manufacturer for connecting the auxiliary hydraulics to an attachment.

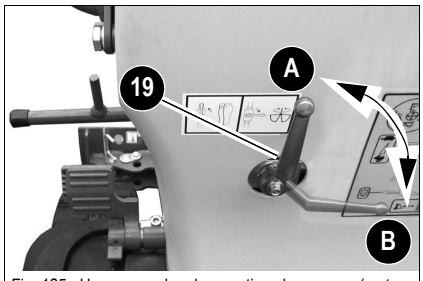


Fig. 125: Hammer and grab operation changeover (up to WNCE0801EPAL00209)

Hammer/grab operation changeover
(up to serial no. WNCE0801EPAL00209)

Use lever **19** to switch between hammer mode and grab mode.

Position	Lever	Function
A	☞ *Turn lever* **19** *upward*	➥ Hammer operation
B	☞ *Turn lever* **19** *to the right*	➥ Grab operation

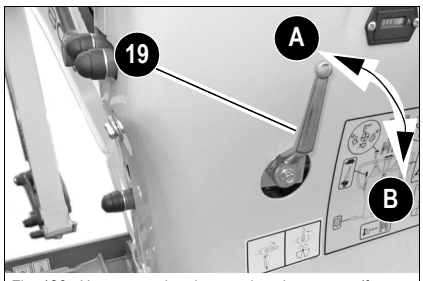


Fig. 126: Hammer and grab operation changeover (from WNCE0801EPAL00210)

Hammer/grab operation changeover
(from serial no. WNCE0801EPAL00210)

Use lever **19** to switch between hammer mode and grab mode.

Position	Lever	Function
A	☞ *Turn lever* **19** *upward*	➥ Grab operation
B	☞ *Turn lever* **19** *to the right*	➥ Hammer operation

Hammer operation enabled

➥ Oil flows to the hammer through the pressure line and to the reservoir through the return line.

Grab operation enabled

- Standard: press the pedal backward – the grab rotates to the left.
- Standard: press the pedal forward – the grab rotates to the right.

➥ Oil flows forward through the left or right-hand pressure line.

Information!

Check the auxiliary hydraulics pedal for correct function.

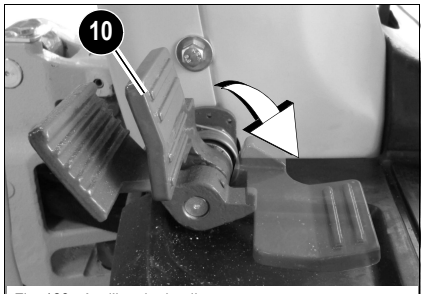


Fig. 128: Auxiliary hydraulics

☞ *Unfold the left-hand pedal **10***

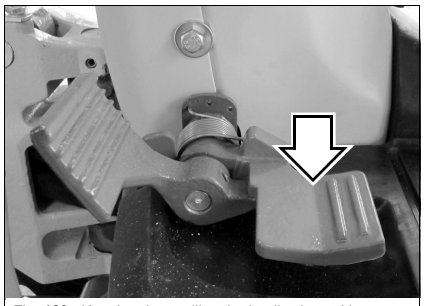


Fig. 129: Keeping the auxiliary hydraulics in position

☞ *Keep the left-hand pedal in position but do not press it*

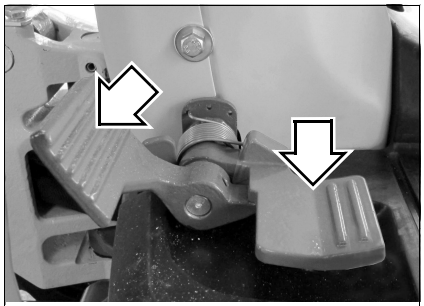


Fig. 130: Actuating the auxiliary hydraulics

Actuating the auxiliary hydraulics:

☞ *The left-hand pedal can be pressed forward or backward*

➥ Oil flows through the auxiliary hydraulics line

Emergency lowering

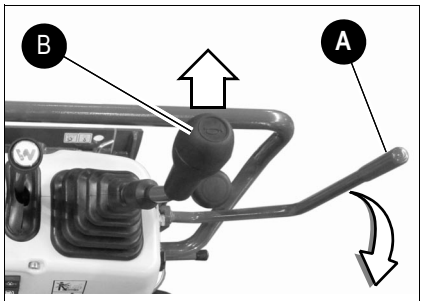


Fig. 131: Emergency lowering

WARNING

Crushing hazard during boom lowering!

Can cause serious injury or death.

- Ensure that no one is in the danger zone.

Information!

Lower the boom immediately after stopping the engine.

1 Lower lock lever **A**.

2 Push control lever **B** on the right forward until the boom is fully lowered to the ground.

3 Return control lever **B** to neutral.

Rotating the upper carriage

WARNING

Crushing hazard due to rotating range of vehicle!

Persons in the rotation range of the vehicle can be seriously injured or killed.

- Do not allow anyone to stay in the danger zone.

Information!

As long as the hydraulic oil is still cold, the upper carriage can continue to move after the control lever is released.

- Operate the control lever carefully.

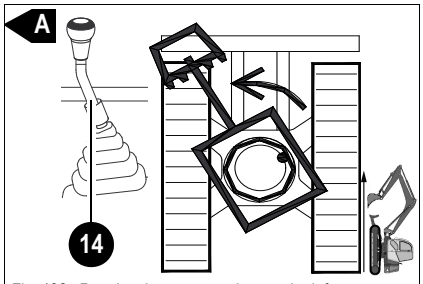


Fig. 132: Rotating the upper carriage to the left

If the control lever is actuated quickly, the upper carriage rotates quickly; if the control lever is actuated slowly, the upper carriage rotates slowly.

Rotate the upper carriage to the left as follows:

☞ *Push the control lever on the left* **14** *to the left* ***A***

➥ The upper carriage rotates to the left

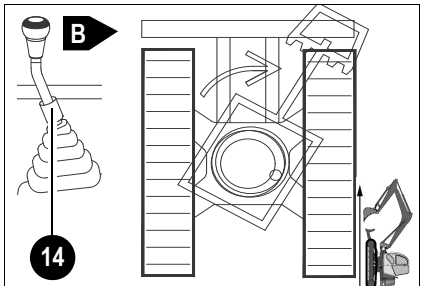


Fig. 133: Rotating the upper carriage to the right

Rotate the upper carriage to the right as follows:

☞ *Push the control lever on the left* **14** *to the right* ***B***

➥ The upper carriage rotates to the right

Hydraulic swivel unit brake

Normal deceleration:

Release the control lever **14** .

Maximum deceleration:

Press the control lever **14** in the opposite direction until the upper carriage comes to a standstill.

3.15 Lock lever

WARNING

Crushing hazard due to unexpected movements of the machine or attachments!

The boom and auxiliary hydraulics can be operated even though the safety lock lever is raised. This can cause serious injury or death.

Information!

Raise the lock lever before leaving the machine.

Lock lever (up to serial no. AI00814)

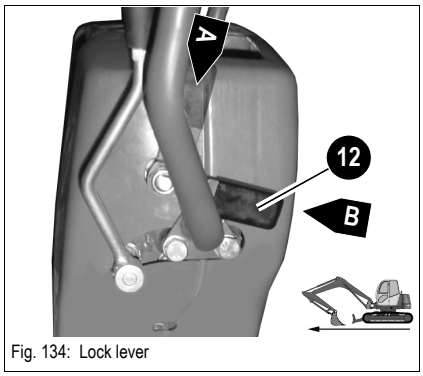


Fig. 134: Lock lever

Locking the lock lever

☞ *Set lever* **12** *to position* ***A***.

➥ The control levers are locked.

Unlocking the lock lever

☞ *Set lever* **12** *to position* ***B***.

➥ The control levers are unlocked.

Lock lever (from serial no. AI00815)

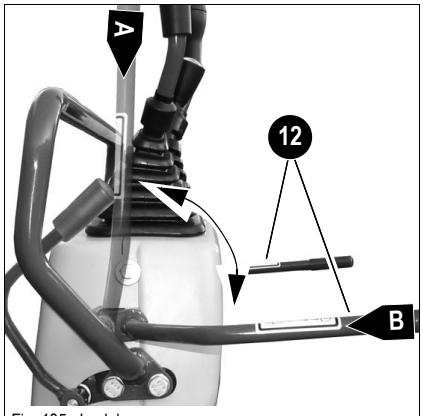


Fig. 135: Lock lever

Locking the lock lever

☞ *Set lever* **12** *to position* ***A***.

➥ The control levers are locked.

Unlocking the lock lever

☞ *Set lever* **12** *to position* ***B***.

➥ The control levers are unlocked.

3.16 Dual Power (option)

Dual Power enables zero-emission working by means of an electro-hydraulic power unit (Wacker Neuson HPU8) or conventional working with the diesel engine.

If the machine is equipped with the **Dual Power** option, hydraulic hoses are connected to the undercarriage of the machine.

WARNING

Accident hazard due to incorrect operation of the hydraulic power unit!

Can cause serious injury or death.

- Do not allow anyone to stay in the danger zone of the excavator.
- The power unit must be at the same level as the excavator.
- The operator must have permanent visual contact with the power unit.
- Do not pull the power unit with the hydraulic hoses.
- *– see chapter* ***Dual Power (option)*** on page 2-20

NOTICE

In order to avoid damage to the machine, Wacker Neuson recommends operating the 803 compact excavator in dual-power operation only with the HPU8 power unit.

During operation with a zero-emission power unit, there must be no biodegradable hydraulic oil in the excavator or power unit.

Information!

The optimal performance of the 803 compact excavator in dual-power operation can only be ensured with the HPU8 power unit. However, if the maximum excavator connection values *– see chapter 6.5* ***Connection values of Dual Power option*** on page 6-2 are complied with, and if the hydraulic oil of the power unit and excavator is identical, other brands can be connected, too.

Information!

Do not travel across flexible hydraulic lines or connecting cables.

Overview of connections

NOTICE

Possible damage to the hydraulic system.

- Always couple and uncouple in the correct boom and stabilizer-blade position – *See* ***Coupling*** on page 3-74.
- Before coupling or uncoupling hoses, stop the power unit and the diesel engine of the excavator.

Environment!

Possible serious damage to the environment due to unconnected hydraulic lines.

- The hydraulic hoses of the power unit must be connected to the excavator before starting the power unit.

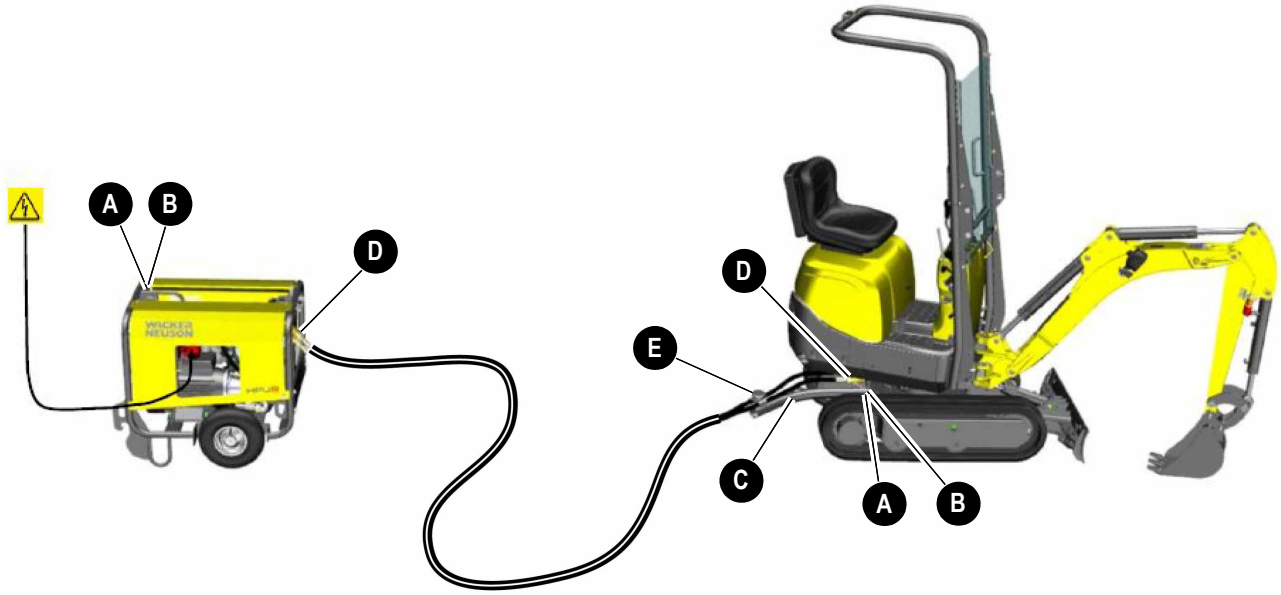


Fig. 136: Overview of connections (symbolic representation)

	Description
A	Split pin
B	Pins
C	Lance
D	Hydraulic connections
E	Clamping screw

Coupling

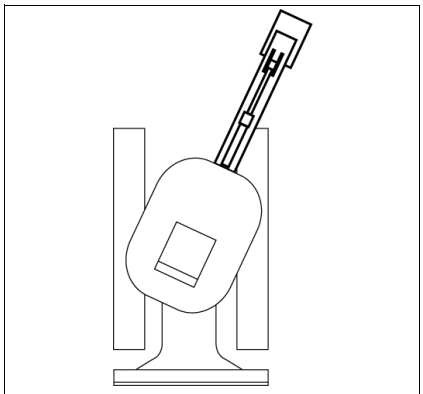


Fig. 137: (symbolic representation)

1 Put the excavator and the power unit on firm, level and horizontal ground.

2 Position the upper carriage as shown. The stabilizer blade must be at the rear.

3 Lower the stabilizer blade to the ground – see *Fig. 46*.

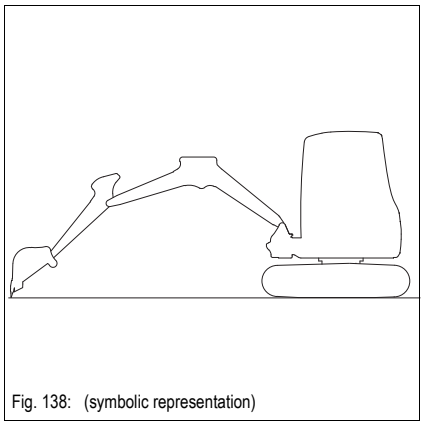


Fig. 138: (symbolic representation)

4 Position the bucket and the stick as shown.

5 Lower the boom to the ground.

6 Stop the diesel engine.

7 Remove the starting key and carry it with you.

8 Operate the control lever repeatedly to release the pressure in the hydraulic system.

9 Stop the power unit.

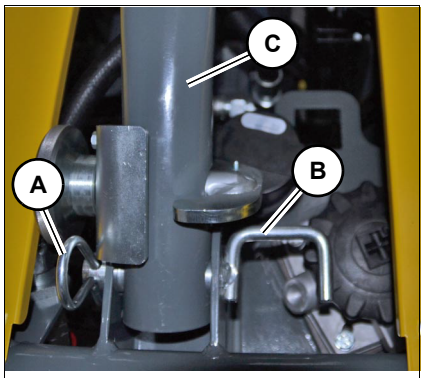


Fig. 139:

10 Pull out split pin **A** and pin **B** (at the front and rear) on the power unit and remove lance **C** from the power unit.

11 Fasten a pin and the split pin on the power unit again.

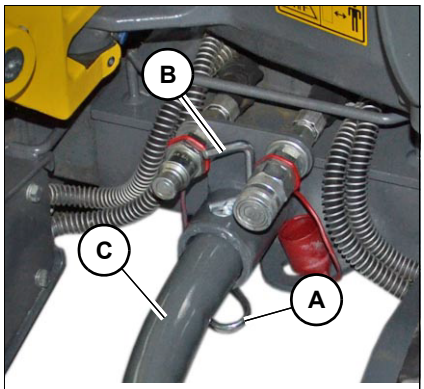


Fig. 140:

12 Insert lance **C** in the holder on the excavator and secure it with pin **B** and split pin **A**.

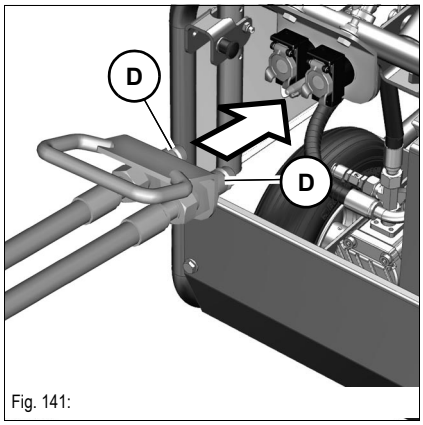


Fig. 141:

13 Connect the hydraulic hose connections **D** to the power unit.

CAUTION

Injury hazard due to sharp-edged objects!

Can cause injury.

- Wear protective gloves when coupling and uncoupling the hydraulic connections of the power unit.

Information!

Possible damage due to use of different hydraulic oil.

- The power unit and excavator must be filled with HVLP 46 hydraulic oil. Operation is prohibited if other oil types/grades or biodegradable hydraulic oil is used.

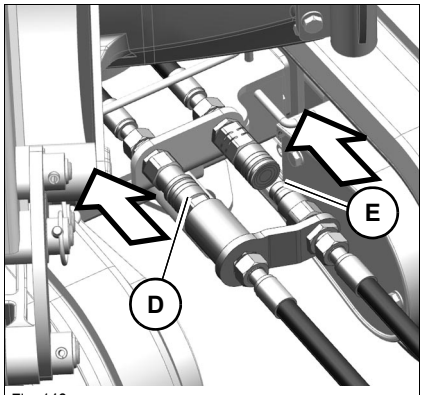


Fig. 142:

14 Connect the hydraulic hose connection **D** to the excavator.

15 Connect the hydraulic hose connection **E** to the excavator.

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

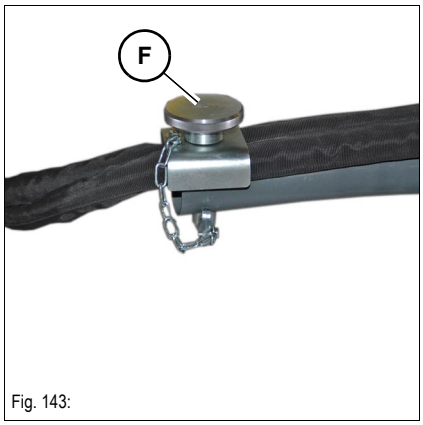


Fig. 143:

16 Screw clamping screw **F** and fasten the hose on the lance as shown.

Checking the hydraulic oil levels of the power unit and excavator

Check the hydraulic oil levels before starting the power unit.

NOTICE

Possible damage to power unit or excavator.

- Check the hydraulic oil levels before starting and observe the following measures.
- Do not start the diesel engine of the excavator during power unit operation, otherwise the hydraulic oil levels of the power unit and excavator are changed.

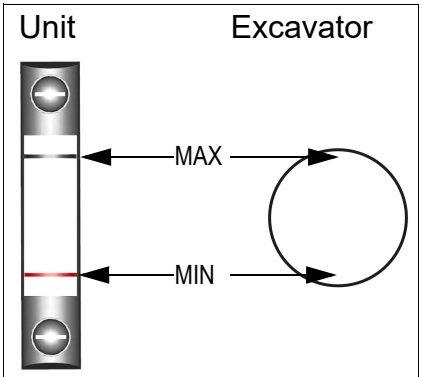


Fig. 144:

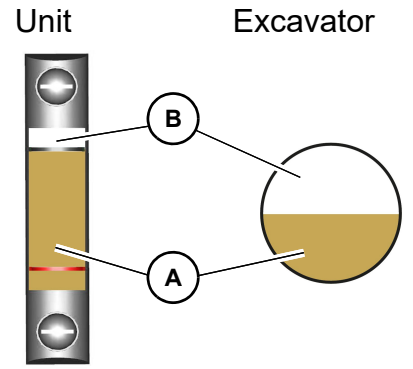


Fig. 145:

The power unit and excavator may only be put into operation if the hydraulic oil levels are between the MIN and MAX marks. Both hydraulic oil **(A)** and air **(B)** must be visible in the sight glass.

- Add hydraulic oil if no hydraulic oil can be seen in one of both sight glasses.
- Do not start operation if no air can be seen in one of the sight glasses. Contact a Wacker Neuson service center.

Changeover from HPU to diesel operation

Fig. 146:

NOTICE

Possible damage to the excavator if the diesel engine is started in the **HPU** position.

- Stop the diesel engine and change over from HPU to diesel operation.

Key **A** for changing over between HPU and diesel operation is located in the document box behind the operator seat.

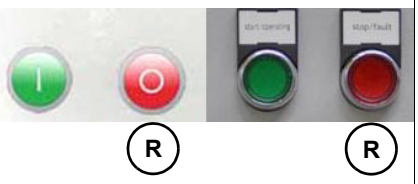


Fig. 147:

1 Stop the HPU: press the red push button **(R)**

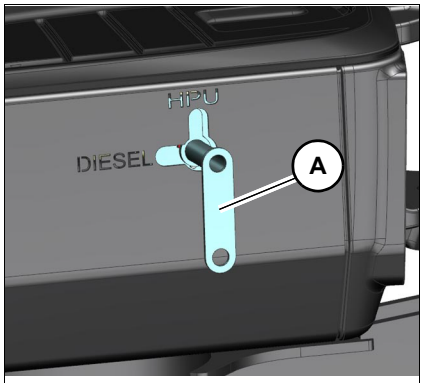


Fig. 148: Symbolic representation

2 Insert key **A** and turn counterclockwise to end position **(1)** .

3 Remove key **A** and store it in the document box.

NOTICE

Possible damage due to improper switching.

- Key **A** may only be removed in one of the two end positions.

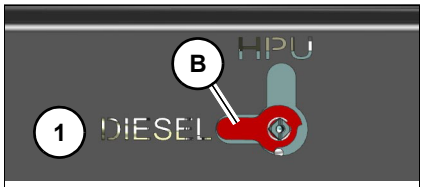


Fig. 149:

➥ The **B**mark must be in position **1**.

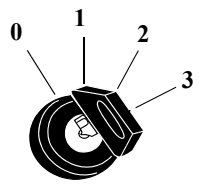


Fig. 150:

4 Start the diesel engine: turn the starting key to position **3**.

Changeover from diesel to HPU operation

Fig. 151:

Key **A** for changing over between HPU and diesel operation is located in the document box behind the operator seat.

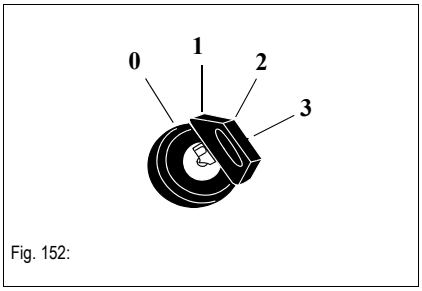


Fig. 152:

1 Stop the diesel engine: turn the starting key to position **0**.

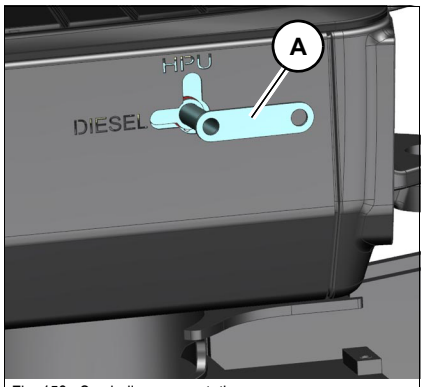


Fig. 153: Symbolic representation

2 Insert key **A** and turn clockwise to end position **(2)** .

3 Remove key **A** and store it in the document box.

NOTICE

Possible damage due to improper switching.

- Key **A** may only be removed in one of the two end positions.

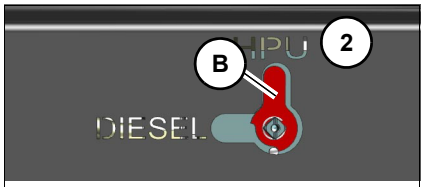


Fig. 154:

➥ The **B**mark must be in position **2**.

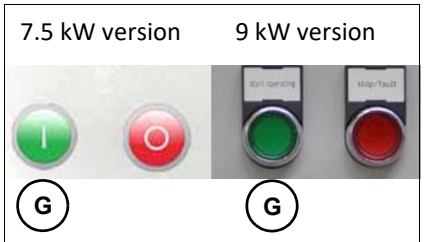


Fig. 155:

4 Switch on the HPU: press the green push button **(G)**

Uncoupling

CAUTION

Possible injury hazard due to sharp-edged objects!

Can cause injury.

- Wear protective gloves when uncoupling the hydraulic connections of the power unit.

NOTICE

Possible damage to power unit or excavator.

- Always couple and uncouple in the correct boom and stabilizer-blade position – *See* ***Coupling*** on page 3-74.
- The power unit and the excavator must be stopped before uncoupling.

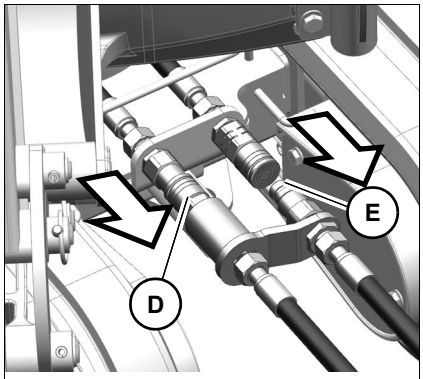


Fig. 156:

1 Uncouple the hydraulic hose connection **E** from the excavator.

2 Uncouple the hydraulic hose connection **D** from the excavator.

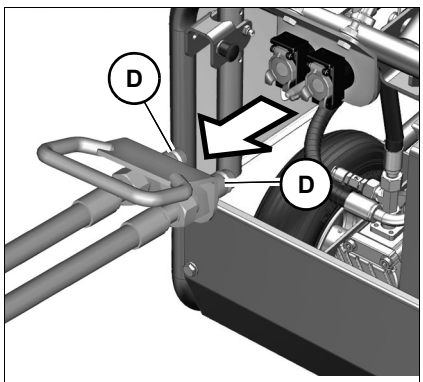


Fig. 157:

3 Uncouple the hydraulic hose connections **D** from the power unit.

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

Charging the excavator battery

The excavator battery is not charged because the diesel engine does not during excavator operation with the zero-emission power unit. Charging the battery regularly is therefore necessary.

DANGER

Explosion hazard in case of incorrect handling of battery!

Incorrect battery handling can cause serious injury or death.

- The engine cover of the excavator must be open during recharging.
- Fire, open flames and smoking is prohibited.
- Perform charging only on well-ventilated premises.
- Do not charge malfunctioning or frozen batteries.

DANGER

Burn hazard due to hot engine parts!

Can cause serious burns.

- Stop the excavator engine and let it cool down.
- Wear protective equipment.

DANGER

Injury hazard due to rotating parts!

Rotating parts can cause serious injury or death.

- Open the excavator engine cover only at engine standstill.

NOTICE

Possible damage to the power unit and excavator.

- The power unit must be stopped during charging.

NOTICE

Possible damage to the charger by laying it in the area of rotating parts.

- Do not place the battery charger cables near rotating parts.

Information!

Only operate battery chargers with the same specifications as the one supplied with the power unit. Observe the Operator's Manual of the battery charger. Contact a Wacker Neuson service center in case of doubt.

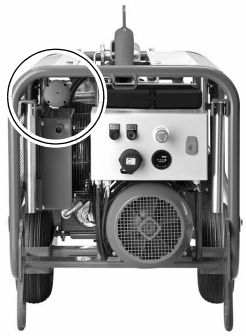


Fig. 158:

The battery charger is located in the storage compartment above the hydraulic-oil radiator of the power unit.

For more information, refer to the Operator's Manual of the battery charger. The Operator's Manual is located in the document box of the power unit.

The excavator battery can be charged in two different ways.

- With the power unit
- Directly with the 230 V mains

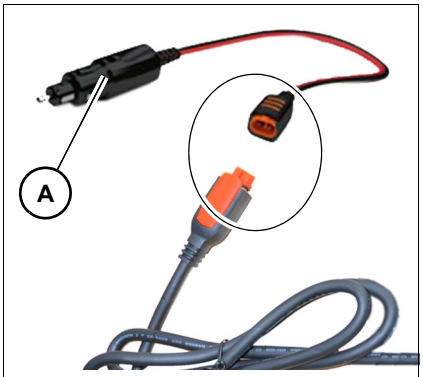


Fig. 159:

Connect the adapter connector and bushing of the battery charger.

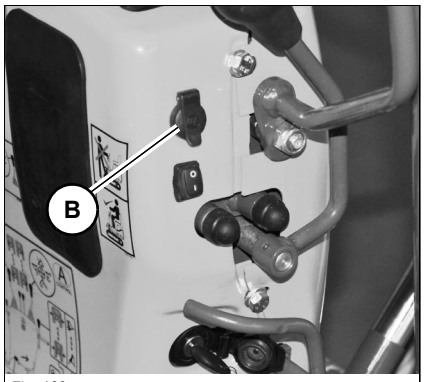


Fig. 160:

Connect the 12 V connector **A** to the 12 V outlet **B**.

Charging the battery with the power unit

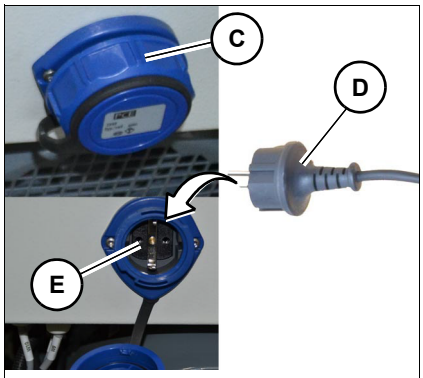


Fig. 161:

Turn protective cap **C** anticlockwise and remove it.

Connect safety connector **D** of the battery charger with the accessories outlet **E** of the power unit.

Charging the battery with the mains

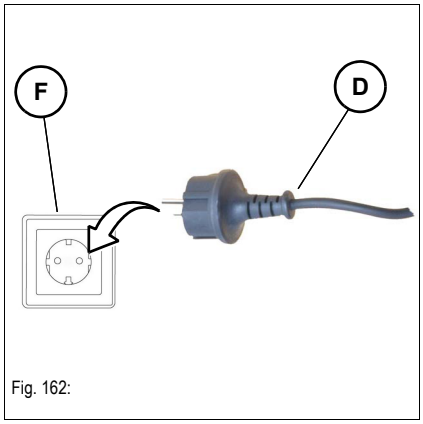


Fig. 162:

Connect safety connector **D** of the battery charger with a 230 V outlet **F**.

Environment!

Dispose of old batteries in an environmentally friendly manner.

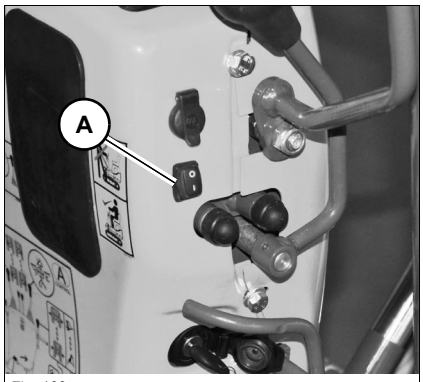


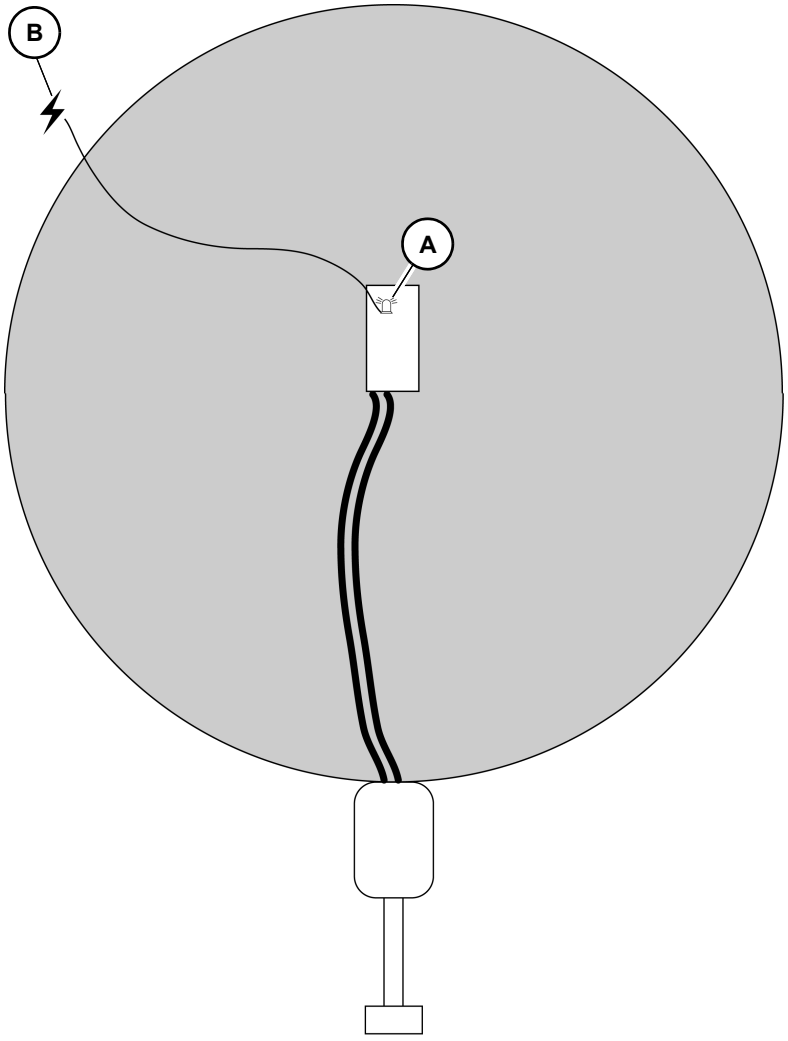
Fig. 163:

LED working light

The Dual Power option includes an energy-saving LED working light that is switched on and off with switch **A**.

Dual-Power operation with rotating beacon

The rotating beacon must be supplied with external power in countries or regions where a rotating beacon is mandatory during excavator operation.



Connect rotating beacon **A** to the external power supply **B**. Connecting the rotating beacon to the accessories outlet of the power unit is prohibited.

Information!

Using a rotating beacon screwed onto the power unit is prohibited.
Wacker Neuson recommends a commercially available magnetic or clampable rotating beacon.

3.17 Relieve pressure from auxiliary hydraulics

NOTICE
Before connecting or removing hydraulic lines from an attachment with hydraulic functions, ensure that the hydraulics are not under pressure! Ensure that no one is in the danger zone of the machine

Information!

The hydraulic system of the machine is still pressurized even when the engine is not running! The hydraulic quick couplers can be released, however they cannot be re-attached due to the residual pressure in the lines.

- Release the pressure.
- Release the pressure in the sections of the system and hydraulic lines that are to be opened before starting setup or repair work, for example fitting/removing an attachment!

1. Stop the vehicle on firm, level, and horizontal ground.
2. Lower the attachment completely to the ground.
3. Lower the stabilizer blade to the ground.
4. Stop the engine.
5. Turn the starting key to position **1**.
6. The control lever base must be lowered.
7. Move the control element of the respective hydraulic circuit several times in all directions and hold each time as far as it will go for three seconds.
   ➥ The pressure reduces. This can be seen by the brief movement the hoses make as the pressure is released.
8. Turn the starting key to position **0**.
9. Uncouple the attachment immediately after the pressure has been released, otherwise pressure can be created again.

Removed attachments with hydraulic connections must not be stored in sunlight to ensure pressure does not build in the lines.

Clean the hydraulic quick couplers before connecting to ensure dirt does not penetrate the hydraulic system.

3.18 Re-equipping attachments

Re-equipping the attachments is described below for a bucket. If you are fitting or removing attachments with their own hydraulic functions – grab or offset bucket, for example – you must follow the special information given in the Operator's Manual of the attachment.

Specific safety instructions

- Driving in pins with a plastic hammer can cause them to splinter, which can cause serious injury.
  ☞ Always wear goggles, a hard hat, protective gloves, safety shoes and other suitable protective clothing.
- Do not stand behind the bucket when removing pins.
  ☞ Do not place your foot underneath the bucket.
- Pay special attention to your fingers when removing and reinserting pins.
- Never insert fingers in the bores of the pins as you align them.

WARNING

Injury hazard during modification work!

Can cause serious injury or death.

- Avoid accidents and injury by following the information below:
  - Stop the engine.
  - Raise the lock lever
  - Remove the starting key
  - Re-equip attachments only with suitable tools
  - Do not align components with your fingers or your hands but use suitable tools – crushing hazard!
- After you have re-equipped an attachment, or before starting work, ensure that the attachment is safely locked in the stick and the joint rod.

Removing a bucket

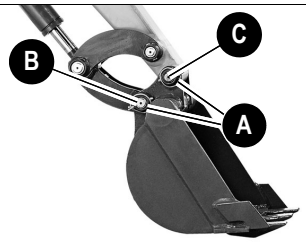


Fig. 164: Removing a bucket

- Lower the bucket to level ground with the flat side facing downward
- Stop the engine.
- Raise the lock lever
- Remove the starting key
- Remove linch pins **A**
- First remove the bolt **B**, then bolt **C**; carefully drive out seized pins with a hammer and brass punch

If pin **C** is stuck:

- Starts the engine
- Slightly raise and lower the boom to take the load off the pin
- Stop the engine.
- Raise the lock lever
- Remove the starting key

Information!

Place the bucket only with minimum pressure on the ground as you remove the pins. The higher the pressure on the ground, the higher the resistance and the more difficult it is to remove the pins.

Mounting a bucket

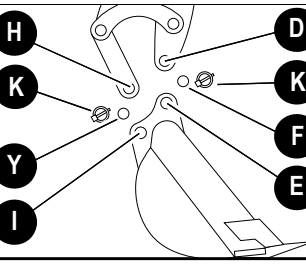


Fig. 165: Installing a bucket

- Install a bucket only if it is positioned on level ground with the flat side facing downward
- Grease bolts and joints before insertion
- Starts the engine
- Straighten the stick so that bores **D** and **E** are flush
- Insert greased pin **F**
- Actuate the stick cylinder until bores **H** and **I** are flush
- Insert the greased pin **J**
- Install linch pins **K**

Lehnhoff mechanical quickhitch system (optional)

- The quick coupler system and the attachment support must be undamaged and clean.
- Store the Operator's Manual of the mechanical quick coupler system together with the Operator's Manual of the vehicle.
- The described operation does not apply to the face shovel. Contact an authorized workshop for face shovel operation.

WARNING

Crushing hazard when picking up attachments!

If an attachment is not locked correctly, it can come off and cause serious injury or death.

- Do not allow anyone to stay in the danger zone.
- During locking and unlocking procedures, make sure that hands and feet are not crushed.
- Only use undamaged attachments and quick coupler systems.
- Before starting any work and after every locking process, press the attachment to the ground and quickly move it back and forth over just over the ground a few times to check the secure locking.
- Only operate the vehicle with a safely locked attachment.

WARNING

Crushing hazard when attachments are removed!

If an attachment is not removed correctly, it can tip over and cause serious injury or death.

- Do not allow anyone to stay in the danger zone.
- Lower the attachment to level and firm ground ensuring stability.

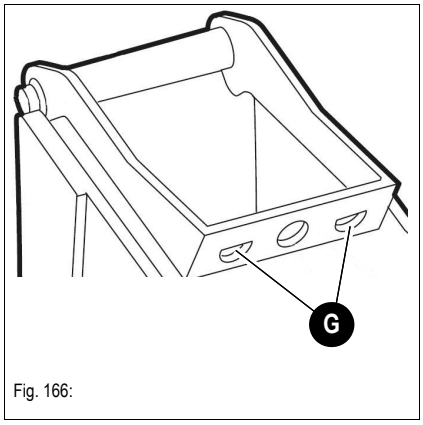


Fig. 166:

Support

803: support for MS01

G: Openings for quick coupler system bolts

Picking up an attachment

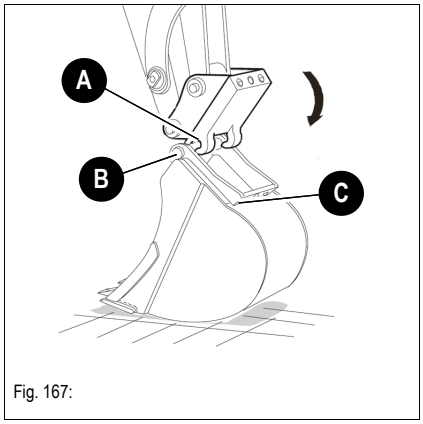


Fig. 167:

1. Hook up the quick coupler system **A** in the attachment bolt **B**.
2. Slightly screw in the quick coupler system **A**, lift the shovel arm until the attachment is suspended about 30 cm (12 in) above the ground.
3. Extend the bucket cylinder so that the edge **C** of the attachment touches the quick coupler system.

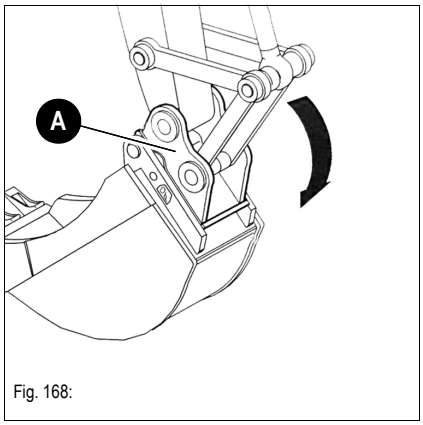


Fig. 168:

4. Screw in the quick coupler system **A** until the attachment lies completely on the quick coupler system **A** due to its weight.
5. Shut off the engine and store the ignition switch key safely.

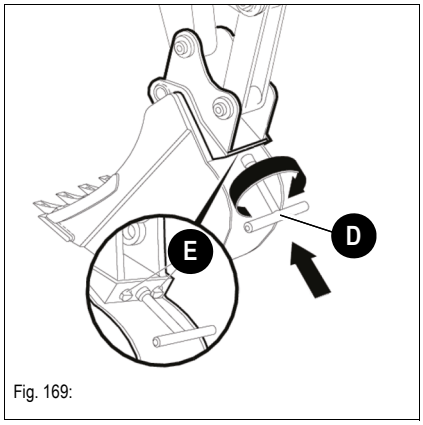


Fig. 169:

6. Screw socket wrench **D** clockwise until the bolts **E** completely engage in the openings **G** of the quick coupler system **A**.
   ➥ The quick coupler system is locked.
7. Remove the socket wrench and perform a visual inspection.
8. Start the engine.

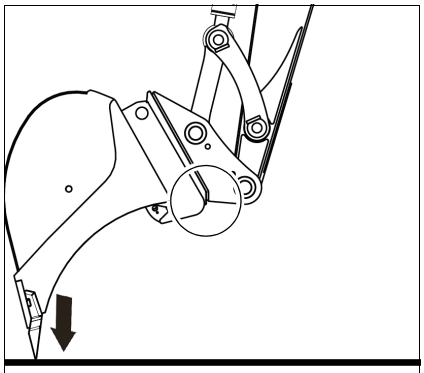


Fig. 170:

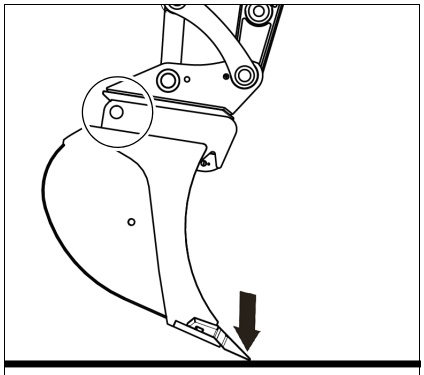


Fig. 171:

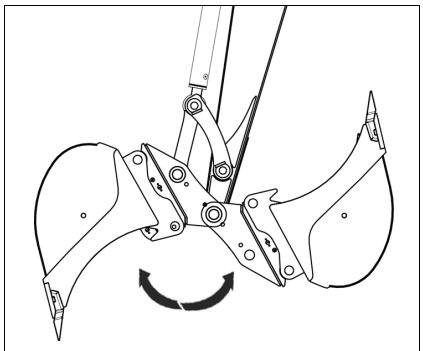


Fig. 172:

9. Before starting any work and after every locking process, press the attachment to the ground and quickly move it back and forth over just over the ground a few times.
   ➥ The attachment may not detach from the quick coupler system in the process.

Setting down an attachment

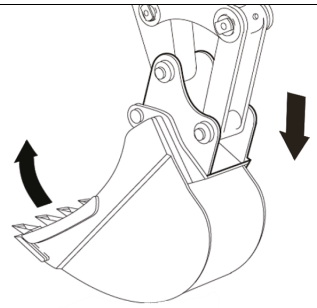


Fig. 173:

1. Screw in the attachment and position it at 5–10 cm (2–4 in) above the ground.
2. Shut off the engine and store the ignition switch key safely.

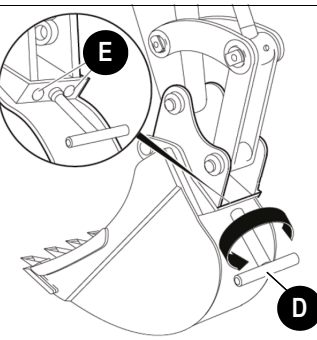


Fig. 174:

3. Turn the socket wrench **D** counter-clockwise until the bolts **E** are completely retracted.
   ➥ The quick coupler system is unlocked.
4. Remove the socket wrench.
5. Start the engine.
6. Lower the attachment to level and firm ground ensuring stability.

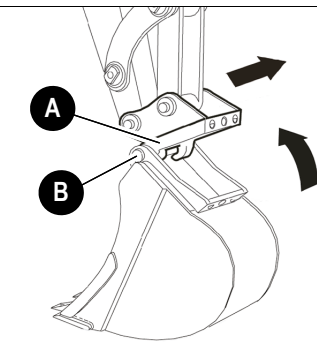
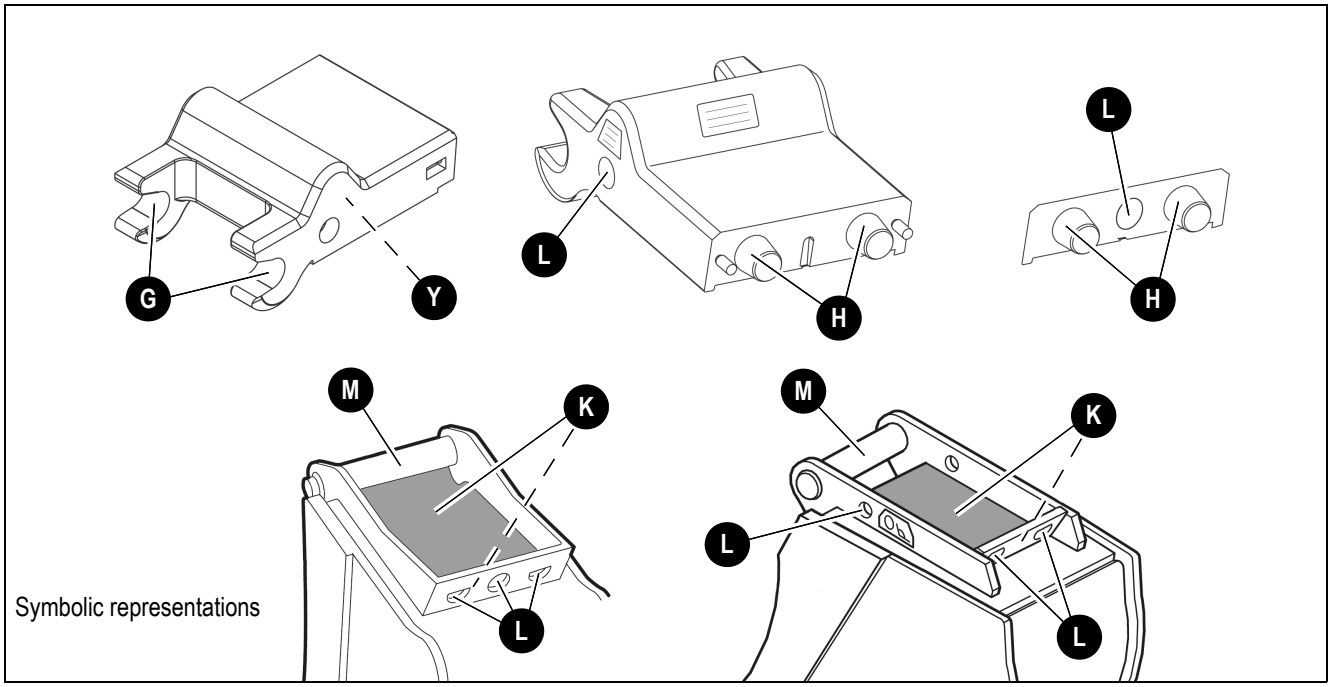


Fig. 175:

7. Retract the bucket cylinder and quick coupler system **A** from the attachment bolt **B**.

Maintenance schedule of Lehnhoff mechanical quickhitch system



Symbolic representations

Quick coupler system MS01 maintenance (operator)		Interval[1]
Perform visual inspection of the quickhitch system	--	10 hours of operation/daily
Clean bolt guide	**G**	50 hours of operation/weekly
Clean the bolt contact surface	**H**	50 hours of operation/weekly
Clean bottom side of the quick coupler system	**Y**	50 hours of operation/weekly
Clean contact surfaces of the attachment	**K**	50 hours of operation/weekly
Clean the opening for the socket wrench and bores of the attachment support	**L**	50 hours of operation/weekly
Clean bolt attachment support	**M**	50 hours of operation/weekly

1. For time specifications: the first achieved time specification is decisive. If the situation requires it, perform maintenance if necessary, even if the maintenance interval has not yet been reached.

Other maintenance intervals (authorized service center)

- Every 250 hours of operation or half-yearly
- Every 500 operating hours or annually

For additional details, contact a Wacker Neuson service center.

Connections for auxiliary hydraulics

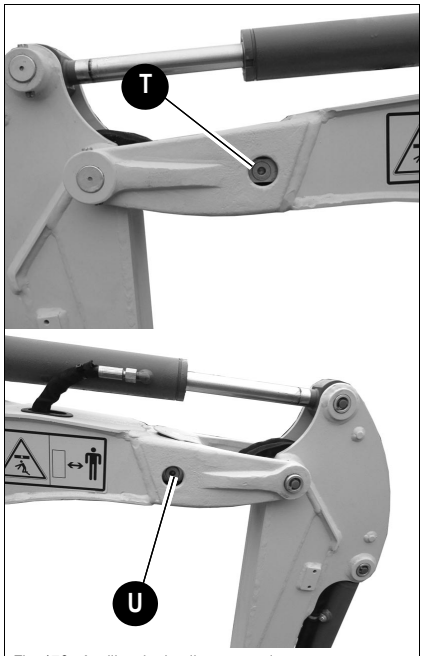


Fig. 176: Auxiliary hydraulics connections

Information!

For hammer operation we recommend installing the hydraulic lines up to the stick in order to avoid damage – *see chapter* ***Connections for auxiliary hydraulics (stick hose routing option)*** on page 3-94.

Auxiliary hydraulics can be connected as required.
If the machine is equipped with the double-action auxiliary hydraulics option, only the flow direction of the hydraulic oil changes when actuated.

Connection	Left side of boom	Right side of boom
T	☞ *Return line*	--
U	--	☞ *Pressure line*

Information!

Follow the instructions in the Operator's Manual of the attachment manufacturer for connecting the auxiliary hydraulics to an attachment.

Connect and disconnect as follows:

☞ *Park the machine on level and horizontal ground.*

☞ *Extend the stick cylinder halfway through.*

☞ *Stop the engine.*

☞ *Release the pressure on the operating hydraulics .*
– see chapter 3.17 ***Relieve pressure from auxiliary hydraulics*** *on page 3-85*

➥ The attachment couplings can be connected.

☞ *Raise the lock lever.*

☞ *Remove the starting key.*

Connections for auxiliary hydraulics (stick hose routing option)

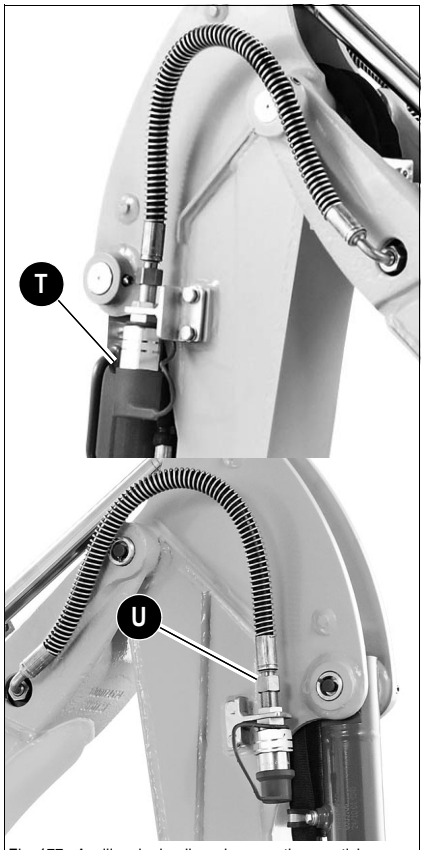


Fig. 177: Auxiliary hydraulics – hose routing on stick

Auxiliary hydraulics can be connected as required.

If the machine is equipped with the double-action auxiliary hydraulics option, only the flow direction of the hydraulic oil changes when actuated.

Connection	Stick (left)	Stick (right)
T	☞ *Return line*	
U		☞ *Pressure line*

Information!

Follow the instructions in the Operator's Manual of the attachment manufacturer for connecting the auxiliary hydraulics to an attachment.

Connect and disconnect as follows:

☞ *Park the machine on level and horizontal ground.*

☞ *Extend the stick cylinder halfway through.*

☞ *Stop the engine.*

☞ *Release the pressure on the operating hydraulics .*

– see chapter 3.17 ***Relieve pressure from auxiliary hydraulics*** *on page 3-85*

➥ The attachment couplings can be connected.

☞ *Raise the lock lever.*

☞ *Remove the starting key.*

Attachments

Information!

Please refer to the Operator's and maintenance manual of the attachment manufacturer for using and performing maintenance on attachments such as hammers, etc.

Information!

Check the auxiliary hydraulics pedal for correct function.

Maintenance of attachments

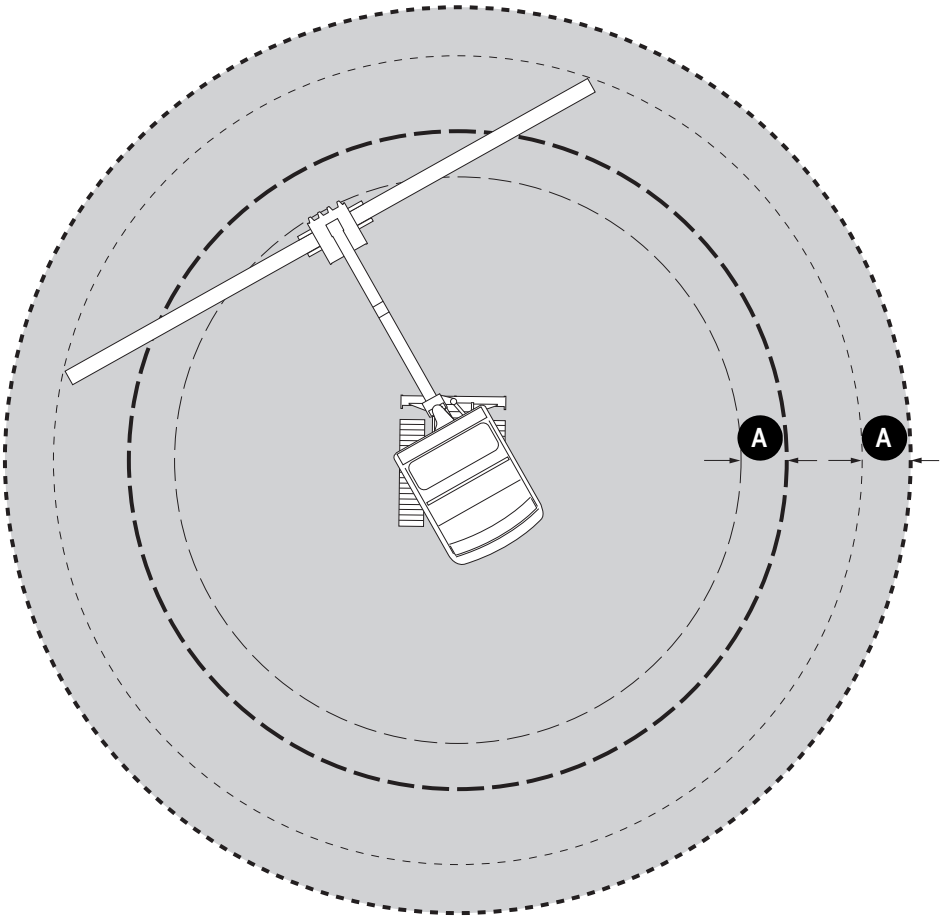
Information!

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

3.19 Work operation

Danger zone

- The danger zone is the area in which persons are in danger due to the movements of the vehicle, attachment or load.
- The danger zone also includes the area that can be affected by falling material, equipment or by parts that are thrown out.
- The danger zone on a slope is different from the one on a level surface (secure the load) See chapter **"Operation**, **driving on slopes"**.
- Stop vehicle operation immediately if persons do not stay clear of the danger zone.
- Seal off the danger zone should it not be possible to keep a sufficient safety distance.
- Extend the danger zone sufficiently in the immediate vicinity of buildings, scaffolds or other elements of construction.



Danger zone with a bucket

Danger zone with a bucket and a safety distance of 1.5 m (59 in)

Danger zone with a grab (for example for picking up a pipe)

Danger zone with a grab and a safety distance of 1.5 m (59 in)

A Safety distance of 1.5 m (59 in)

Fig. 178: Danger zone

Inadmissible work procedures

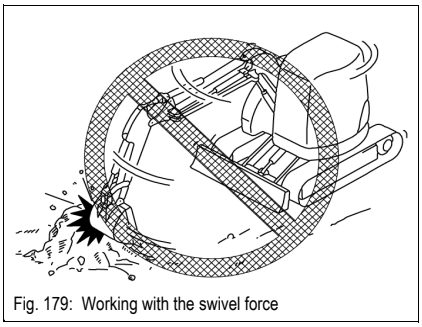


Fig. 179: Working with the swivel force

Working with the swivel force

☞ *Do not use the swivel force of the upper carriage to tear down walls or to create level surfaces.*

☞ *Do not ram the attachment into the ground when swiveling the upper carriage.*

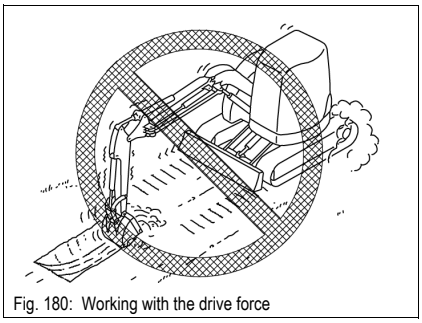


Fig. 180: Working with the drive force

Working with the drive force

☞ *Do not ram the attachment into ground or lower the boom during vehicle travel.*

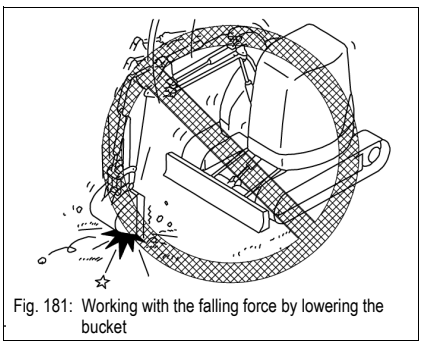


Fig. 181: Working with the falling force by lowering the bucket

Working with the falling force by lowering the bucket

☞ *Do not use the falling force of the attachment as a hoe, hammer or pile-driver.*

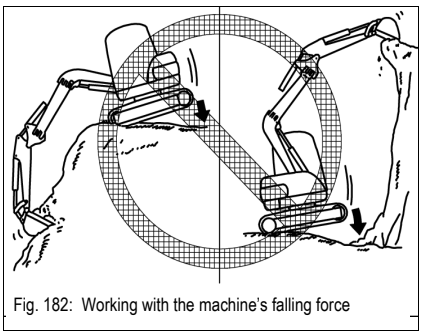


Fig. 182: Working with the machine's falling force

Working with the falling force by lowering the vehicle

☞ *Do not use the dead weight of the vehicle for work.*

☞ *Use the force of the hydraulic cylinders exclusively.*

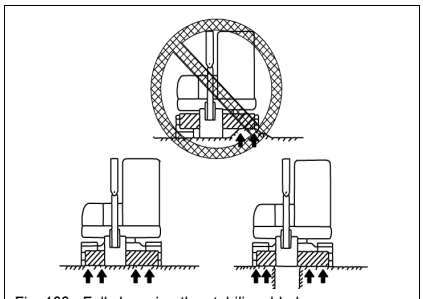


Fig. 183: Fully lowering the stabilizer blade

Protecting the stabilizer legs/blade against shocks

☞ *The stabilizer blade or stabilizer blade cylinder can be damaged when the stabilizer blade hits against obstacles.*

Fully lowering the stabilizer blade

☞ *Apply the full weight of the vehicle over the entire width of the stabilizer blade when using it for stabilization.*

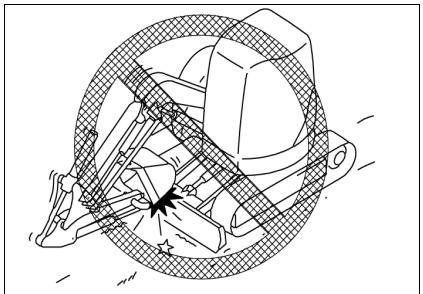


Fig. 184: Retracting attachments

Retracting the attachment

☞ *When retracting the attachment, ensure that it does not touch the stabilizer blade.*

Excavator work position

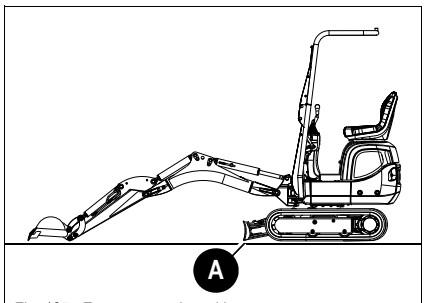


Fig. 185: Excavator work position

☞ *Place stabilizer blade **A** on the side you want to dig*

Working with the bucket

The following section describes work operations with the vehicle equipped with a backhoe bucket. The backhoe bucket is mainly used for earth-moving applications (digging, loosening, picking up and loading loose or solid material).

Place the stabilizer blade on the side you want to dig.

Bucket position when digging

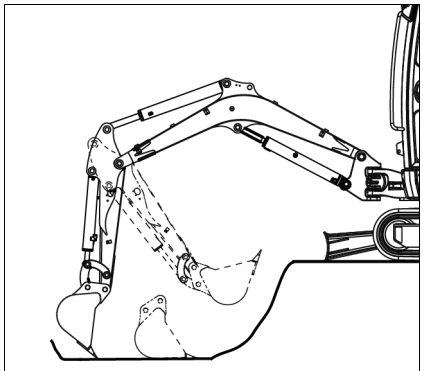


Fig. 186: Bucket position

Perform long, level excavation movements with the stick and the bucket. The maximum excavation force is achieved at an angle of 80 to 120° between the boom and the stick.

1. Penetrate into the ground with the bucket.
2. Lower the stick and at the same time, position the bucket so that the flat lower side of the bucket is parallel with the ground.
3. Move the stick in the direction of the excavator and simultaneously rotate the stick in.

Working alongside trenches

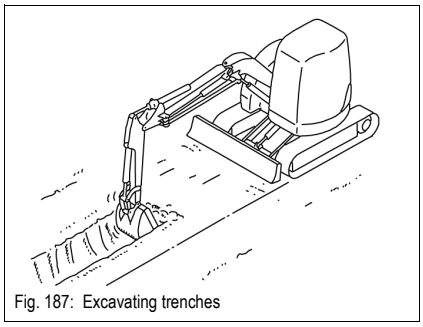


Fig. 187: Excavating trenches

For a more efficient working method, install a suitable bucket and set the tracks parallel to the trench.

When digging wide trenches, dig the side sections first and then the middle section.

Loading material

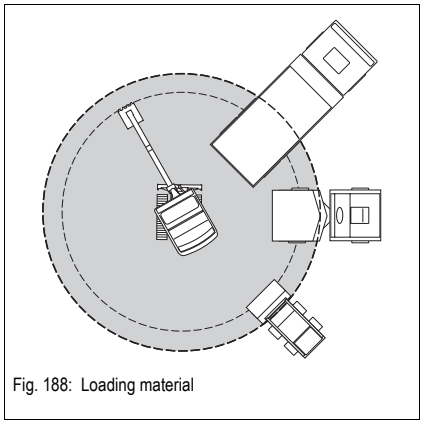


Fig. 188: Loading material

Notes on loading site dumpers:

- Position the site dumper so that its cabin is outside the danger zone of the excavator.
- The loading platform of the truck is loaded by starting at the rear end.
- Keep the swivel angle as small as possible.
- Raise the full bucket to dump height only as you rotate toward the site dumper.
- Tilt out dusty material with the wind behind you to keep the dust away from your eyes, air filters and fans.
- If possible, the site dumper and the working direction of the bucket should form an angle of 45°.

Grading

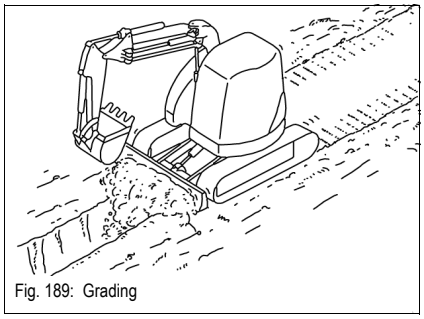


Fig. 189: Grading

The stabilizer blade is used for filling up trenches or grading the ground.

Lower the stabilizer blade to the ground for grading work.

Set the depth of the layer you want to remove with the stabilizer-blade lever.

- The vehicle must not be raised by lowering the stabilizer blade.
- Do not dig in the vehicle or let it sink in.

Excavating trenches sideways

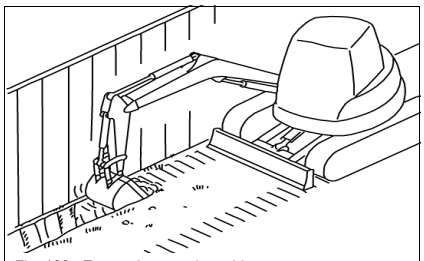


Fig. 190: Excavating trenches sideways

For excavating laterally in tight spaces, turn the upper carriage and swivel the boom.

Further tips for excavation

When planning and performing digging work, Wacker Neuson recommends that you observe the following points:

- Exits from pits must be outside the digging line and as level as possible.
- Dig by removing adjacent strips if possible.
- Ensure that you can drive forward when driving out of the digging area with a fully loaded bucket.
- Perform transport trips downhill with loaded bucket in reverse operation.

Freeing the machine

If the vehicle gets stuck in the ground:

- Tilt out the bucket until the blade is vertical above the ground.
- Lower the boom all the way.
- Slowly tilt out the bucket.

  ➥ The vehicle is pushed backward.
- Reverse slowly.
- Repeat this procedure until the tracks reach firm ground.
- Reverse the vehicle away.

Working on slopes

WARNING

Tipping hazard of machine on slopes!

A tipping vehicle can cause serious injury or death.

- Secure slopes before beginning work. Pay attention to ground conditions, vehicle weight, etc.
- Stabilize the vehicle with the stabilizer blade during excavation work.

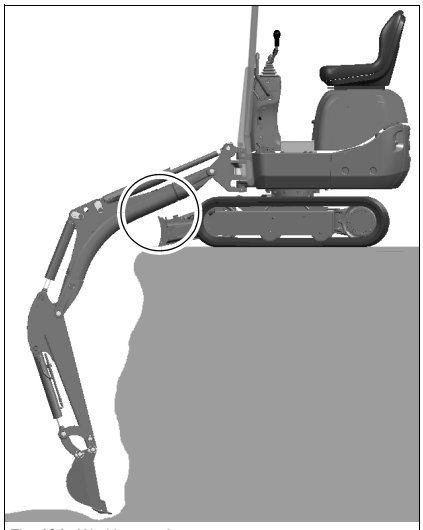


Fig. 191: Working on slopes

NOTICE

Lifting arm cylinders can be damaged by improper operation.

- The piston rod must not touch the stabilizer blade.

Hints for digging

When planning and performing digging work, Wacker Neuson recommends that you observe the following points:

- Exits from pits must be outside the digging line and as level as possible.
- Dig by removing adjacent strips if possible.
- Ensure that you can drive forward when driving out of the digging area with a fully loaded bucket.
- Perform transport trips downhill with loaded bucket in reverse operation.

Notes:

4 Malfunctions

4.1 Engine trouble

Problem	Possible causes	See
Engine does not start or is not easy to start	Incorrect engine oil	*5-37*
	Wrong fuel	*5-37*
	Malfunctioning or empty battery	*5-30*
	Malfunctioning fuse	*6-3*
Engine starts, but does not run smoothly or faultless	Wrong fuel	*5-37*
	Air in fuel system	*5-4*
Engine overheats. Temperature warning system responds	Incorrect oil level	*5-7*
	Dirty air filter	*5-11*
	Dirty oil radiator fins	*5-10*
	Coolant level too low	*5-9*
	Malfunctioning fan, torn or loose V-belt	*5-14*
Insufficient engine power	Oil level too high	*5-7*
	Wrong fuel	*5-37*
	Dirty air filter	*5-11*
Insufficient or no engine oil pressure	Oil level too low	*5-7*
	Machine inclination too high	*3-25*
	Incorrect engine oil	*5-37*
Engine oil consumption too high	Oil level too high	*5-7*
	Machine inclination too high	*3-25*
	Incorrect engine oil	*5-37*
Engine smoke	Oil level too high	*5-7*
	Machine inclination too high	*3-25*
	Incorrect engine oil	*5-37*
	Wrong fuel	*5-37*
	Dirty air filter	*5-11*
The working light does not light up	The excavator's battery has too low voltage during dual power operation. Charge the battery.	*3-80*

Notes:

5 Maintenance

5.1 Introduction

Maintenance and care significantly affect the functionality and service life of the vehicle.

• Daily and weekly maintenance work is to be performed by the operator in accordance with the maintenance plan.

• Maintenance with the note **authorized service center** must be performed only by the trained and qualified personnel of an authorized service center.

• Have defective components repaired or replaced before operating the vehicle. Safety-relevant components may only be repaired/replaced by an authorized service center.

• Observe all warning and safety instructions in these operating instructions.

• Observe the maintenance and safety instructions in the operating instructions for the attachment tools.

• Wear protective equipment (e.g. hard hat, safety goggles, safety gloves, safety shoes).

• Attach a warning label to the control elements (for example **"Machine being serviced, do not start"**).

• Stop and park the machine.

• To avoid damage to electronic components, do not perform any welding work on the vehicle, attachments, or tools.

• Contact a Wacker Neuson service center.

5.2 Fuel system

WARNING

Burn hazard when refueling!

Can cause serious injury or death.

- Fire, open flames and smoking is prohibited.
- Keep the maintenance area clean.
- Do not refuel in closed rooms.
- Do not add gasoline to the diesel fuel.
- Let the engine cool down.

WARNING

Health hazard due to diesel fuel!

Can cause serious injury or death.

- Avoid contact with the skin, eyes and mouth.
- Seek medical attention immediately in case of accidents with diesel fuel.
- Wear protective equipment.

WARNING

Fire hazard due to diesel fuel!

Can cause serious injury or death.

- Fire, open flames and smoking is prohibited.
- Adding gasoline is prohibited.

- Before refueling, stop the engine, raise the lock lever and remove the starting key!
- Do not refuel in closed rooms!
- Wipe away fuel spills immediately!
- Keep the vehicle clean to reduce the fire hazard!

Refueling

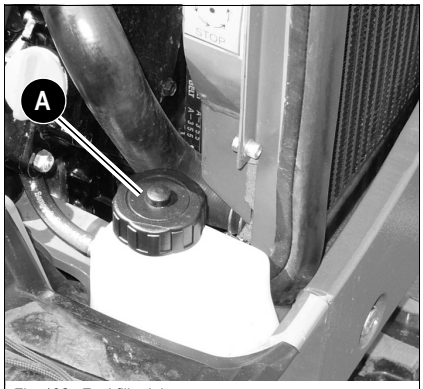


Fig. 192: Fuel filler inlet

Filler inlet **A** for the fuel tank is located in the engine compartment, on the left in driving direction.

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

Information!

Do not run the fuel tank completely dry. Otherwise, air is drawn into the fuel system. This requires bleeding the fuel system – *see* ***Bleeding the fuel system*** on page 5-4.

Information!

Refuel daily after work.

Stationary fuel pumps

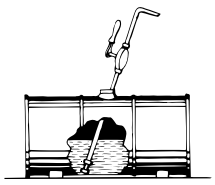
NOTICE

Even the smallest particles of dirt can cause increased engine wear, faults in the fuel system and reduced effectiveness of the fuel filters.

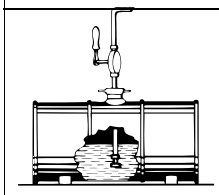
- Do not refuel using cans.
- Immerse pump suction tubes to a maximum of 15 cm (6 in) above the bottom of the barrel.
- Use fine filters, if possible.

Refueling from barrels

- Barrels must not be rolled or tipping before refueling.
- Refuel only using refueling aids, e.g. hopper or filler pipe.
- Keep all refueling containers clean



incorrect



correct

Fig. 193: Refueling from barrels

Bleeding the fuel system

WARNING

Injury hazard due to rotating parts!

Can cause serious injury or death.

- Before starting the engine, ensure that no one is within danger zone of the engine/the machine!
- Start the engine only if the engine cover is closed!

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 operation for a longer period of time

Bleed the fuel system as follows:

- Fill the fuel tank
- Turn the starting key to the first position
- Wait about 5 minutes while the feed pump bleeds the fuel system automatically
- Starts the engine
- Check for leaks after starting the engine
- Let the fuel system run by performing a test run of 5 minutes at idling speed

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

- Stop the engine.
- Raise the lock lever
- Remove the starting key
- Bleed the fuel system again as described above
- Contact authorized service center

Fuel prefilter with water separator

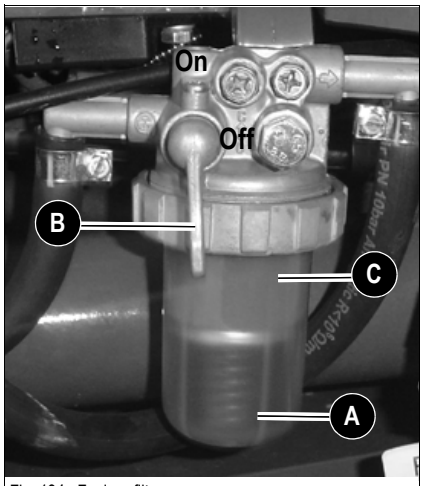


Fig. 194: Fuel prefilter

☞ *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

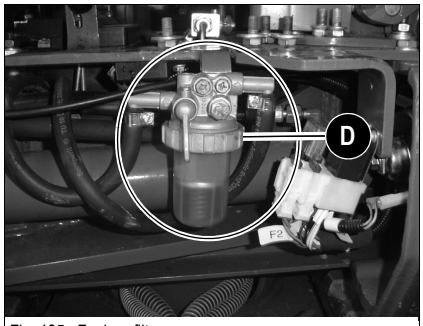


Fig. 195: Fuel prefilter

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

☞ *Prepare a suitable container for collecting the fuel/water mixture.*

☞ *Screw on ring **D***

➥ Fuel/water mixture drains

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

☞ *Screw down ring **D***

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

5.3 Engine lubrication system

NOTICE

Possible engine damage due to incorrect engine oil level.

- The oil level must be between the MAX and MIN marks.

NOTICE

Damage due to wrong engine oil.

- Use engine oil according to **Fluids and lubricants** list.
- Have the oil changed only by a Wacker Neuson service center.

NOTICE

Possible engine damage due to adding engine oil too quickly.

- Add the engine oil slowly so it can go down without entering the intake system.

NOTICE

Damage due to contaminated engine oil.

- Make sure that no dirt gets into the openings when checking the engine oil level or filling up the engine oil.

Environment!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

Checking the oil level

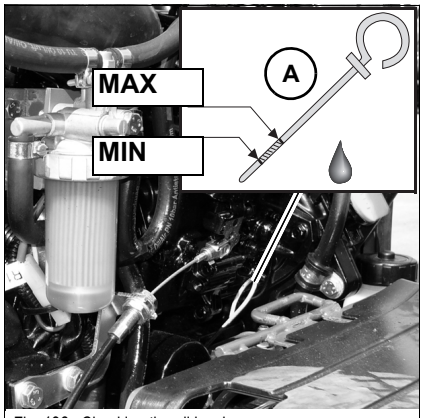


Fig. 196: Checking the oil level

- Park the vehicle on level ground
- Stop the engine.
- Wait for at least 10 minutes, until the oil has run into the oil sump completely
- Raise the lock lever
- Remove the starting key
- Let the engine cool down.
- Opening the engine cover
- Oil dipstick **A**

☞ Pull it out

☞ Wipe it with a lint-free cloth

☞ Push it back in as far as possible

☞ Withdraw it and read off the oil level

- Close and lock the engine cover

Filling up engine oil

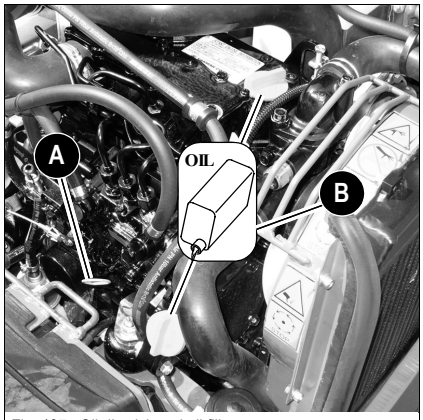


Fig. 197: Oil dipstick and oil filler cap

- Open filler cap **B**
- Pull out oil dipstick **A** and wipe it with a lint-free cloth
- Adding engine oil
- Wait for at least 10 minutes, until the oil has run into the oil sump completely
- Check the oil level – *see* ***Checking the oil level*** on page 5-7
- Add oil if necessary and check the oil level again
- Close filler cap **B**
- Push oil dipstick **A** back in as far as possible
- Completely remove all oil spills
- Close and lock the engine cover

5.4 Cooling system

WARNING

Poisoning hazard due to hazardous substances!

Can cause serious injury or death.

- Wear protective equipment.
- Do not inhale or swallow coolant.
- Avoid contact of the coolant or antifreeze with the skin and eyes.

WARNING

Burn hazard due to coolant or antifreeze!

The coolant and antifreeze are easily flammable fluids that can cause serious burns or death if they are brought into contact with fire or open flames.

- Wear protective equipment.
- Only perform maintenance on an engine that has cooled down.
- Fire, open flames and smoking is prohibited.

WARNING

Burn hazard due to hot coolant!

Can cause serious injury or death.

- Wear protective equipment.
- Let the engine cool down.
- Carefully open the radiator cap.

NOTICE

Possible engine damage due to wrong coolant.

- Observe the coolant compound table.

NOTICE

Possible engine damage due to low coolant level.

- Check the coolant level once a day before starting the engine.

Checking the coolant level/adding coolant

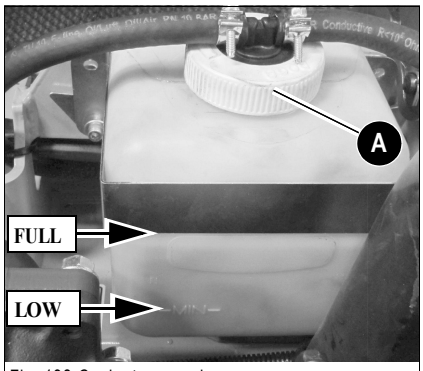


Fig. 198:Coolant reservoir

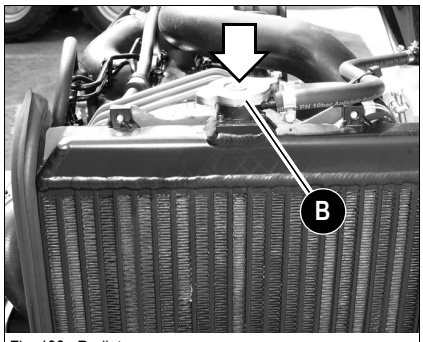


Fig. 199: Radiator

Checking the coolant level

- Park the vehicle on level ground
- Stop the engine.
- Raise the lock lever
- Remove the starting key and carry it with you
- Let the engine and the coolant cool down
- Opening the engine cover
- Check the coolant level on the coolant reservoir **A** and on the radiator **B**

☞ If the coolant level is below the **LOW** mark or coolant does not reach the filler neck of the radiator**B**:

➥ Adding coolant

☞ Close and lock the engine cover

Adding coolant

After the engine has cooled down:

☞ *Release overpressure in the radiator*

☞ Carefully open cap ***B*** to the first notch and fully release the pressure

☞ *Open filler cap **B***

☞ *Add coolant to the lower edge of the filler inlet (radiator)*

☞ *Close filler cap **B***

☞ *Start the engine and let it warm up for about 5 – 10 minutes.*

☞ *Stop the engine.*

☞ *Raise the lock lever*

☞ *Remove the starting key and carry it with you*

☞ *Let the engine cool down.*

☞ *Check the coolant level again*

➥ Coolant level must be between the **LOW** and **FULL** marks

☞ *If necessary, add coolant and repeat the procedure until the coolant level remains constant*

☞ *Close and lock the engine cover*

Information!

Check the antifreeze every year before the cold season sets in

Cleaning the radiator

CAUTION

Burn hazard due to hot surfaces!

Hot radiators can cause burns.

- Stop the engine and let it cool down.
- Wear protective equipment.

NOTICE

Possible engine damage or damage to the hydraulic system from dirty radiator fins.

- Check and if necessary clean the radiator once a day.
- In dusty or dirty work conditions, clean more frequently than indicated in the maintenance plans.

NOTICE

Possible damage to radiator fins during cleaning.

- Keep a safe distance from the radiator.
- Only use oil-free compressed air 2 bar (29 psi max.).

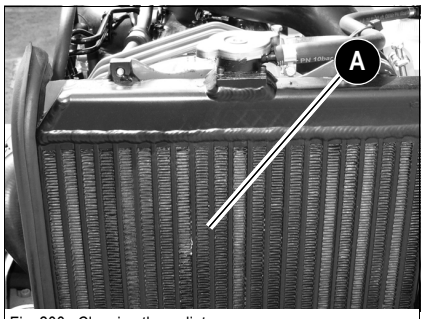


Fig. 200: Cleaning the radiator

1 Stop the machine on firm, level and horizontal ground
2 Position the boom straight ahead at the center of the machine
3 Lower the stabilizer blade to the ground
4 Stop the engine.
5 Raise the lock lever
6 Remove the starting key and carry it with you
7 Let the engine and the coolant cool down
8 Opening the engine cover
9 Remove dust and other foreign bodies from the radiator fins with compressed air

5.5 Air filter

NOTICE

The filter elements will be damaged if they are washed or brushed out!

- Do not clean the filter elements.
- Replace the air filter element according to the maintenance plan.
- Never reuse damaged filter elements.
- Ensure cleanliness when replacing the filter elements.

NOTICE

Filter elements degrade prematurely when in service in acidic air for longer periods of time. This risk is present for example in acid production facilities, steel and aluminum mills, chemical plants and other nonferrous-metal plants.

- Replace the air filter element after 50 operating hours at the latest!

Information!

Ensure that dust valve **G** shows downward once it is installed!

Air filter (up to serial no. AI00875)

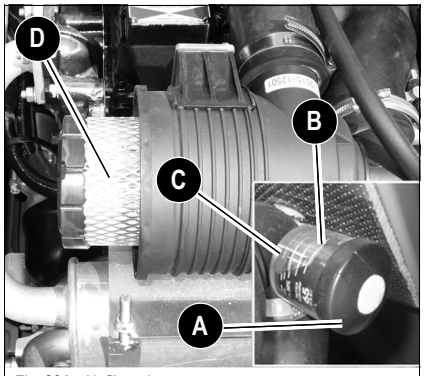


Fig. 201: Air filter element

Replace the air filter elements:

- If the yellow piston **B** in dirt indicator **A** reaches the red service mark **C**.
- Every 1000 operating hours or once a year at the latest.

General instructions for air filter maintenance:

- Store filter elements in their original packaging and in a dry place.
- Check air filter attachments, air intake hoses and the air filter element for damage, and immediately have them repaired or replaced if necessary.
- Check the screws at the induction manifold and the clamps for tightness.
- Check dust valve, clean and replace if necessary.
  ☞ Squeeze the end of the valve with your hand.

Replacing air filter elements

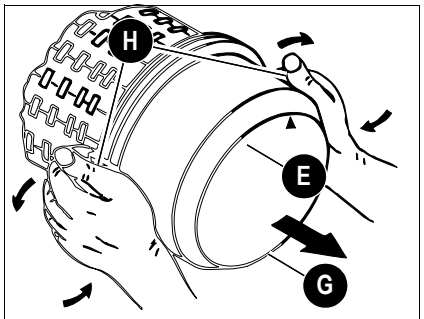


Fig. 202: Removing the housing section

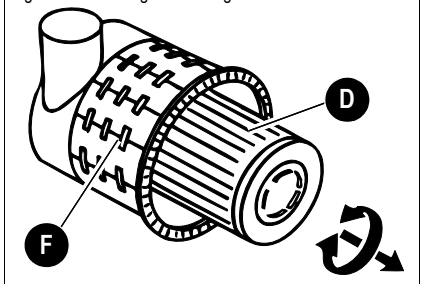


Fig. 203: Removing the air filter element

☞ *Stop the engine.*
☞ *Raise the lock lever*
☞ *Remove the starting key and carry it with you*
☞ *Let the engine cool down.*
☞ *Opening the engine cover*
☞ *Remove dirt and dust from the air filter element and the area around the air filter*
☞ *Open bow clips* **H** *on housing section* **E**
☞ *Remove housing section* **E**
☞ *Carefully remove air filter element* **D** *with slightly turning movements*
☞ *Make sure that all impurities (dust) inside the housing part, including the dust valve, are removed.*
  ☞ Clean the parts with a clean lint-free cloth, do not use compressed air
☞ *Check the air filter element for damage, only install intact air filter elements*
☞ *Carefully insert the new air filter element* **D** *in housing section* **F**
☞ *Position housing section* **E** *(ensure that it is properly seated)*
☞ *Close bow clips* **H**

Air filter (from serial no. AI00876)

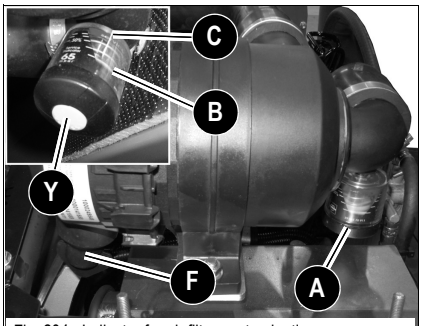


Fig. 204: Indicator for air filter contamination

Replace the air filter elements:

- If the yellow piston **B** in dirt indicator **A** reaches the red service mark **C**.
- Every 1000 operating hours or once a year at the latest.

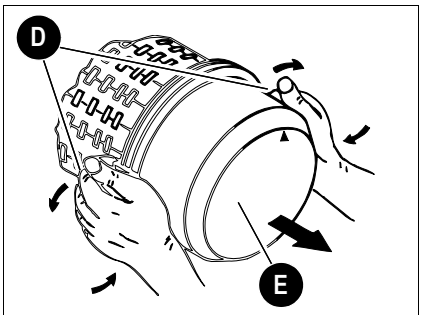


Fig. 205: Lower housing section

1 Park the machine, stop the engine, remove the starting key and carry it with you.
2 Open the engine cover.
3 Remove dirt and dust from the air filter housing and the area around it.
4 Fold bow clips **D** on lower housing section **E** to the outside.
5 Remove lower housing section **E**.

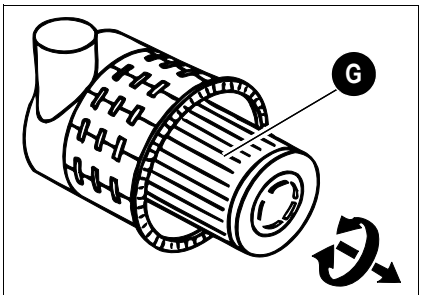


Fig. 206: Outside filter

6 Carefully remove outside filter **G** with slightly turning movements.
7 Make sure that all impurities (dust) inside the housing bottom and top parts (including dust valve) are removed.
8 Clean the parts with a clean lint-free cloth, do not use compressed air.

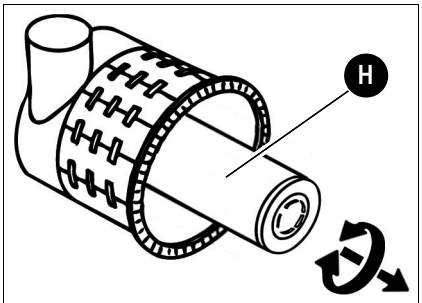


Fig. 207: Inside filter

9 Carefully remove inside filter **H** with slightly turning movements.
10 Check the new inside filter **H** and outside filter **G** for damage and carefully insert them in the air filter housing.
11 Close bow clips **D**.
12 While installing, ensure that dust valve **F** shows downward.
13 After replacing the filters, press button **J** to reset the yellow piston **B**.

5.6 V-belt

WARNING

Injury hazard when checking the V-belt tension!

Can cause serious injury or death.

- Stop the engine before performing inspection work in the engine compartment
- Raise the lock lever
- Remove the starting key
- Disconnect the battery or operate the battery master switch
- Let the engine cool down.

NOTICE

Damaged and severely stretched V-belts lead to engine damage

- Have the V-belt replaced by a Wacker Neuson service center

Checking V-belt tension

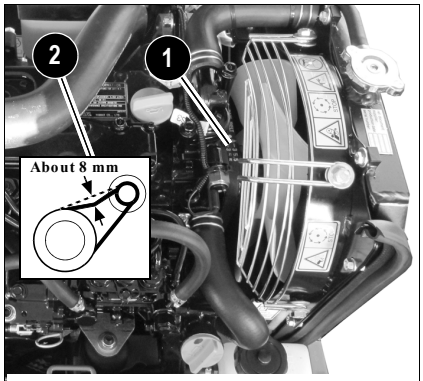


Fig. 208: Checking V-belt tension

☞ Stop the engine.

☞ Raise the lock lever

☞ Remove the starting key and carry it with you

☞ Disconnect the battery

☞ Let the engine cool down.

☞ Opening 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 if the pulleys are damaged.

☞ Press with your thumb about 100 N (23 lbf) to check the deflection of the V-belt between the crankshaft disk and the fan wheel. A new V-belt should have a deflection of 6 to 8 mm (0.2 to 0.3 in), a used V-belt (after about 5 minutes running time) should have a deflection of 7 to 9 mm (0.3 to 0.4 in) (see figure)

In case of deviating values, contact an authorized service center.

Re-tension the V-belt

May be performed only by a Wacker Neuson service center.

5.7 Hydraulic system

DANGER

Burn hazard due to hot hydraulic oil!

Hot hydraulic oil can cause burning to the skin, serious injury or death.

- Release the pressure in the hydraulic system.
- Let the engine cool down.
- Wear protective equipment.

DANGER

Injury hazard due to fluid escaping under pressure!

Hydraulic oil escaping under pressure can penetrate the skin and cause serious injury or death.

- Do not operate the vehicle with leaking or damaged hydraulic system components.
- Open the breather filter carefully to slowly release the pressure inside the reservoir.
- Wear protective equipment. If hydraulic oil contacts the eye, flush immediately with clean water and seek medical treatment.
- Malfunctioning or leaking screw connections, hose connections and pressure lines must be immediately repaired by a Wacker Neuson service center. Search for hydraulic leaks with a piece of cardboard.
- Always consult a doctor immediately, even if the wound seems insignificant. Hydraulic oil causes blood poisoning.

NOTICE

Damage due to wrong hydraulic oil.

- Only use hydraulic oil according to the **fluids and lubricants** list.
- Have the hydraulic oil only changed by an authorized service center.

NOTICE

Damage to hydraulic system due to incorrect hydraulic oil level.

- If the engine is warm, the hydraulic oil must be visible approximately at the middle of oil sight glass.
- Check the hydraulic oil level once a day.

NOTICE

Possible damage to hydraulic system due to dirty hydraulic oil.

- Always add hydraulic oil using the filling screen.
- If the hydraulic oil in the sight glass is cloudy, this indicates that water or air has penetrated the hydraulic system. Contact a Wacker Neuson service center.
- Contact a Wacker Neuson service center if the filter of the hydraulic system is dirty.

Checking the hydraulic oil level

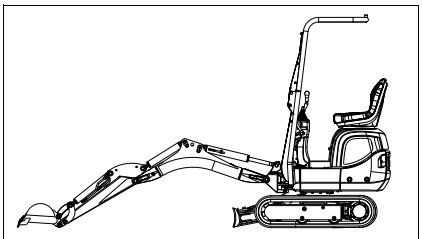


Fig. 209: Parking the machine

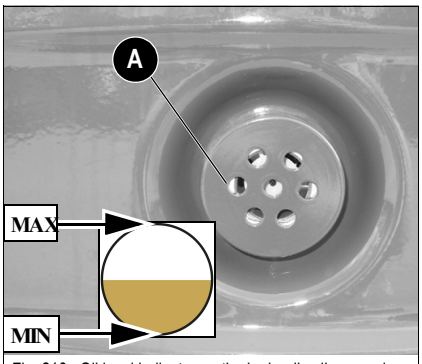


Fig. 210: Oil level indicator on the hydraulic oil reservoir

1 Park the vehicle on firm, level, and horizontal ground.
2 Position the boom straight ahead at the center of the vehicle (see figure).
3 Lower the boom and the stabilizer blade to the ground.
4 Stop the engine.
5 Operate the control lever repeatedly to release the pressure in the hydraulic system.
6 Remove the starting key and carry it with you.
7 Sight glass **A** is located at the rear of the machine.
8 Check the oil level on sight glass **A**

➥ The oil level must be at the **MIN** mark if the machine has not reached its operating temperature yet.

➥ The oil level must be at the **MAX** mark after the machine reaches its operating temperature.

Add hydraulic oil if the oil level is below these marks.

Adding hydraulic oil

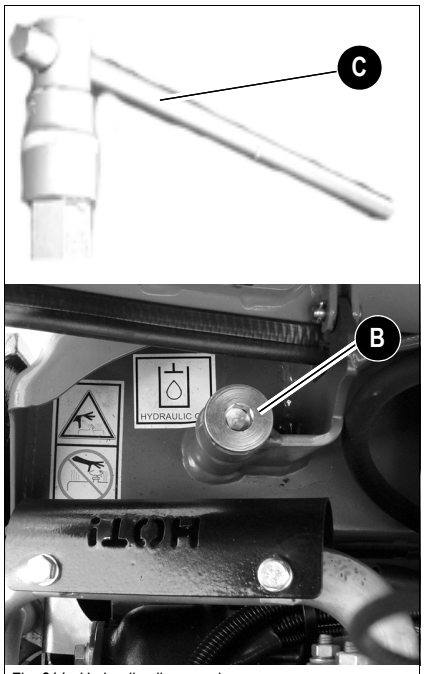


Fig. 211: Hydraulic oil reservoir

9 Slowly open filler cap **B** with tool **C** included in the tool kit

10 Add hydraulic oil up to the corresponding mark.

11 Check the hydraulic oil level on sight glass **A**.

12 Add if necessary and check again.

13 Close filler cap **B**.

Information!

Use a suitable container to collect fluids and lubricants as they flow out and dispose of them in an environmentally friendly manner.

Checking the hydraulic system and hoses

Check the hydraulic system and hydraulic lines daily for leaks and general condition.

Hydraulic hoses are subject to natural aging. Therefore, they must be checked regularly, even when there is no visible damage, which prevents safe operation.

Wacker Neuson recommends following schedule for checks:

Normal wear	12 months
Increased wear (longer operation duration, multi-shift operation, high outside temperatures, aggressive environmental conditions etc.)	6 months

Responsibility of checking hydraulic hose

The vehicle operator must decide the intervals at which the hydraulic hose has to be checked and the decision will be based on the actual work situation.

To do this, the vehicle operator must appoint a qualified person, who will check the hydraulic hoses. If there is noticeable damage, the hydraulic hose must be replaced immediately. Do not start the vehicle. The findings from this check must be retained in writing by the vehicle operator till the next scheduled check.

Wacker Neuson recommends replacing the hydraulic hoses every six years from the manufacturing date.

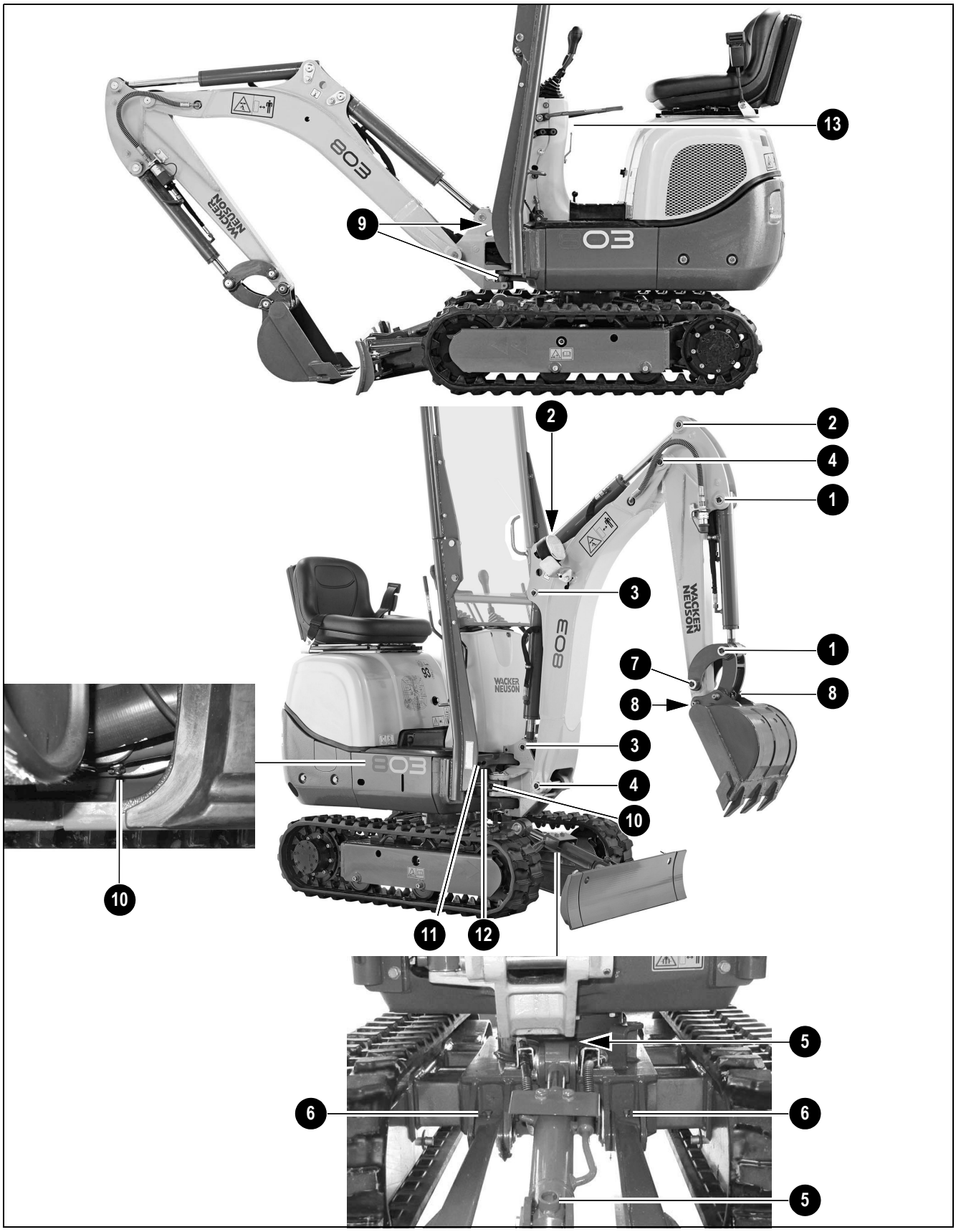
Manufacturing date can be found on the hydraulic hose.

- Re-tighten leaking screw connections and hose connections only when the system is not under pressure. Release the pressure in the hydraulic system before working on lines under pressure.
- Do not weld or solder damaged or leaking pressure lines and screw connections, but have them replaced.
- Wear protective equipment.

Have a line replaced immediately if one of the following problems is detected:

- Damaged or leaky hydraulic seals.
- Worn or torn shells or uncovered reinforcement branches.
- Expanded shells in several positions.
- Entangled or crushed movable parts.
- Foreign bodies jammed or stuck in protective layers.

5.8 Overview of lubrication points



Pos.	Lubrication point[1]	Quantity
1	Bucket cylinder	2
2	Stick cylinder	2
3	Boom cylinder	2
4	Boom	2
5	Stabilizer blade cylinder	2
6	Stabilizer blade	2
7	Shovel arm	1
8	Bucket	2
9	Swiveling console	2
10	Swiveling cylinder	2
11	Ball bearing race of live ring *– see chapter* ***Lubricating the live ring (ball bearing)*** on page 5-23	1
12	Teeth of live ring *– see chapter* ***Lubricating the teeth of the live ring*** on page 5-24	1
13	Ball sockets (ISO/SAE changeover option)	2

1. Lubrication on the pins or directly on the cylinders

Information!

Keep the lubrication points clean and remove ejected grease.

Parking the machine

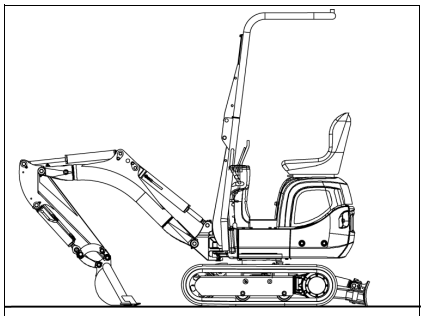


Fig. 212: Parking the excavator

☞ Park the machine on level and horizontal ground.
☞ Lower the boom and the attachment to the ground.
☞ Lower the stabilizer blade to the ground.
☞ Stop the engine.
☞ Remove the starting key and carry it with you.
☞ Move joysticks **15** and **16** in all directions repeatedly.
☞ Raise the lock lever.
☞ Get off the machine, lock the engine cover.

Swiveling cylinder lubrication points

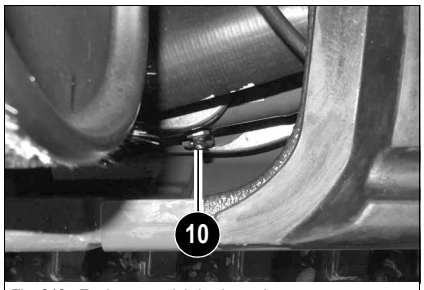


Fig. 213: Engine cover lubrication point

☞ Stop and park the vehicle.
☞ Open the engine cover.
☞ The lubrication point is located on the right under the engine cover.
☞ Apply grease to lubrication point **10** with a grease gun.
☞ Remove ejected grease.

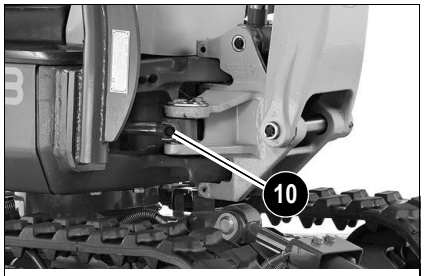


Fig. 214: Swiveling console lubrication point

☞ A further lubrication point is located on the right on the swiveling console.
☞ Apply grease to lubrication point **10** with a grease gun.
☞ Remove ejected grease.

Lubricating the live ring (ball bearing)

WARNING

Crushing hazard! Do not rotate the upper carriage during lubrication.

Can cause serious injury or death.

- Stop and park the machine. – *see chapter* ***Parking the machine*** on page 5-22
- Do not rotate the upper carriage.

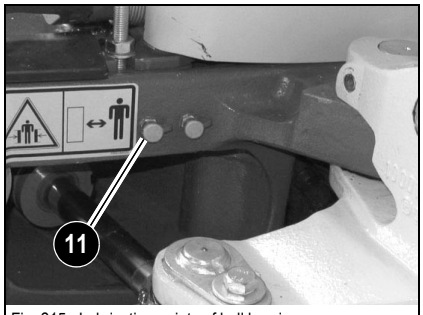


Fig. 215: Lubrication points of ball bearing race

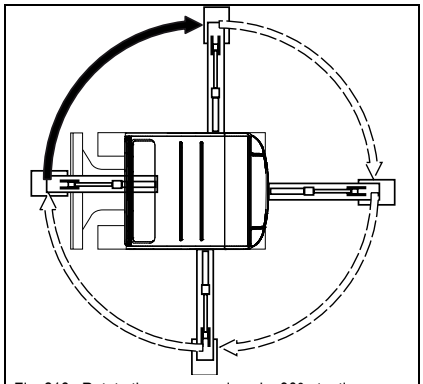


Fig. 216: Rotate the upper carriage by 90° at a time

1 Park the vehicle on firm, level, and horizontal ground.
2 Lower the boom and the stabilizer blade to the ground.
3 Stop the engine, remove the starting key and carry it with you.
4 Raise the lock lever.
5 Apply grease to lubrication point **11** with one stroke of the grease gun.
6 Start the engine, raise the boom and the stabilizer blade.
7 Rotate the upper carriage by 90°.
8 Repeat steps 2 – 7 three times until the upper carriage is back in its initial position.
9 Rotate the upper carriage several times by 360°.

Lubricating the teeth of the live ring

DANGER

Crushing hazard! Do not rotate the upper carriage during lubrication.

Serious crushing hazard causing death or serious injury.

- Stop and park the machine. – *see chapter* ***Parking the machine*** on page 5-22
- Do not rotate the upper carriage.

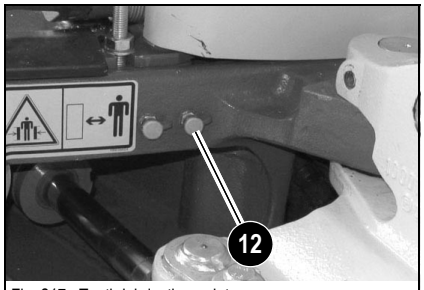


Fig. 217: Teeth lubrication point

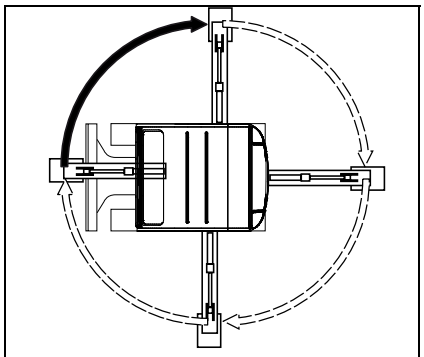


Fig. 218: Rotate the upper carriage by 90° at a time

1 Park the vehicle on firm, level, and horizontal ground.
2 Lower the boom and the stabilizer blade to the ground.
3 Stop the engine, remove the starting key and carry it with you.
4 Raise the lock lever.
5 Apply grease to lubrication point **12** with five strokes of the grease gun.
6 Start the engine, raise the boom and the stabilizer blade.
7 Rotate the upper carriage by 90°.
8 Repeat steps 2 – 7 three times until the upper carriage is back in its initial position.
9 Rotate the upper carriage several times by 360°.

Ball sockets (ISO/SAE changeover option)

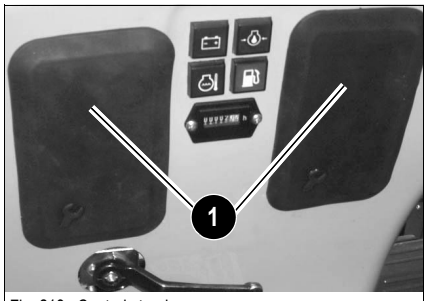


Fig. 219: Control stand covers

☞ Stop and park the vehicle.

☞ Raise covers **1**.

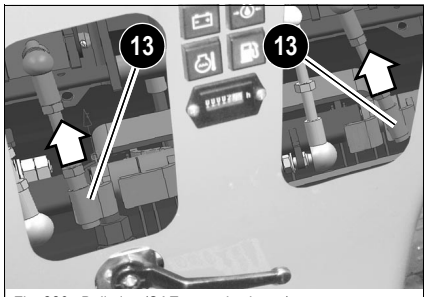


Fig. 220: Ball pins (SAE controls shown)

☞ Slide the knurled sleeve **13** upward, and hold, unhitch and grease it.
The sleeve is safely locked if it is firmly connected with the ball pin and if it is engaged in the lower position.

☞ Lower covers **1**.

5.9 Tracks

Checking track tension

DANGER

Crushing hazard during work under the vehicle!

Causes serious injury or death.

- Ensure that no one is in the danger zone!
- Support the machine so as to allow the tracks to sag freely.

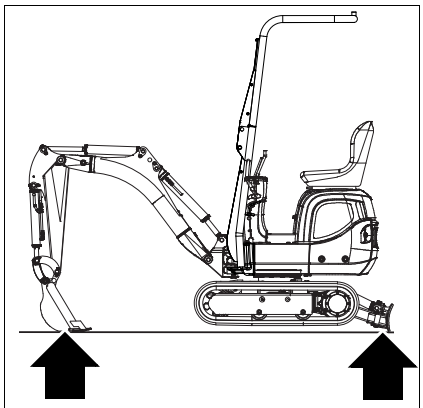


Fig. 221: Raising the machine

1 Park the vehicle on firm, level, and horizontal ground.

2 Raise the vehicle evenly and horizontally by means of the boom and stabilizer blade.

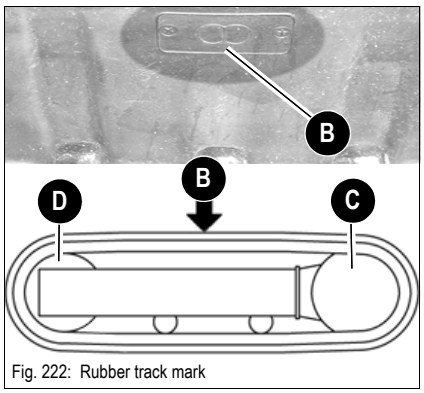


Fig. 222: Rubber track mark

3 Place the tracks so that mark **B** is in the middle between the drive pinion **C** and the track tension roller **D**.

4 Stop the engine.

5 Raise the control lever base.

6 Remove the starting key and carry it with you.

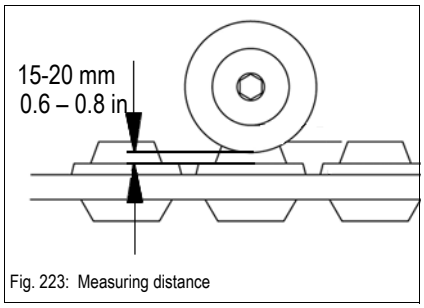


Fig. 223: Measuring distance

7 If the clearance between the roller and the drive chain is not 15 - 20 mm (0.6-0.8 in), adjust the chain tension correctly.

Tightening the tracks

WARNING

Injury hazard due to grease escaping under pressure!

Grease escaping under pressure can penetrate the skin and cause serious injury or death.

- Open the lubricating valve only very carefully and do not unscrew it more than one revolution.
- Wear protective equipment
- Contact a Wacker Neuson service center if you are unable to reduce the track tension.

NOTICE

Possible damage to cylinders and tracks due to over-tightening.

- Tighten the tracks only up to the mandatory measuring distance.

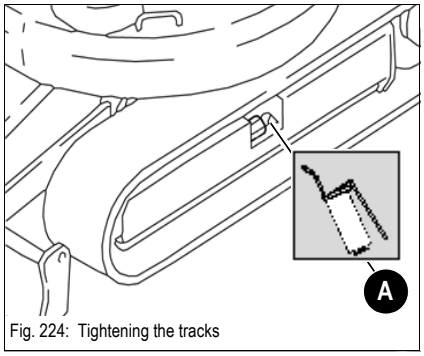


Fig. 224: Tightening the tracks

Tightening the tracks

1 Park the vehicle on firm, level, and horizontal ground.

2 Raise the vehicle evenly and horizontally by means of the boom and stabilizer blade.

3 Stop the engine.

4 Operate the control lever repeatedly to release the pressure in the hydraulic system.

5 Using grease gun **A,** pump grease through lubrication valve **B** .

6 Start the engine.

7 Lower the vehicle to the ground.

8 In order to check that the tension is correct:

☞ - Let it run at idling speed without any load

☞ - Slowly move the vehicle forward and reverse and switch it off again.

9 Check the track tension again.

➥ If it is not correct:

10 Repeat steps 2–9. Contact a Wacker Neuson service center if track tension still is too low after pumping in more grease.

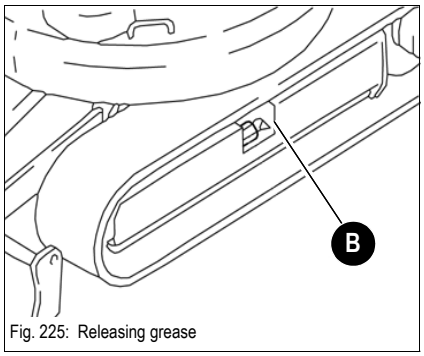


Fig. 225: Releasing grease

Reducing tension

1 Place a suitable container underneath to collect the grease.

2 Slowly open the lubrication valve **B** counterclockwise no more than one turn to allow the grease to escape.

➥ The grease flows out of the groove of the lubricating valve.

3 Retighten lubricating valve **B**.

4 In order to check that the tension is correct:

☞ - Lower the vehicle to the ground,

☞ - start motor,

☞ - Let it run at idling speed without any load, then slowly move the vehicle forward and reverse, then turn it off again. Raise the vehicle again by means of the boom and stabilizer blade.

5 Check the track tension again.

➥ If it is not correct:

6 Adjust again.

Environment!

Collect leaking fuels with a suitable container and dispose of them in an environmentally friendly manner.

5.10 Traveling drive

The travel drive is maintenance-free.

5.11 Electrical system

Maintenance and repair work on the electrical system may only be performed by a Wacker Neuson service center.

- Malfunctioning components of the electrical system must be replaced by a Wacker Neuson service center.
- Bulbs and fuses may be replaced by the operator.

Alternator

Contact a Wacker Neuson service center if the alternator charge indicator light is malfunctioning.

WARNING

Injury hazard due to malfunctioning batteries!

Batteries give off explosive gases that can cause deflagrations if ignited.

- Wear protective equipment.
- Fire, open flames and smoking is prohibited.
- Do not jump start the engine if the battery is malfunctioning or frozen, or if the acid level is too low.
- Do not place conductive articles on the battery – risk of short circuit.

NOTICE

Possible damage to electrical components or engine electronics.

- Do not place conductive articles on the battery – risk of short circuit.
- Do not interrupt voltage-carrying circuits at the battery terminals because of the sparking hazard.
- Do not disconnect the battery while the engine is running.

Environment!

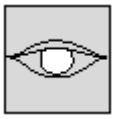
Dispose of old batteries in an environmentally friendly manner.

Servicing and maintenance at regular intervals

Before performing machine travel

☞ *Check every time before performing machine travel:*

- Is the light system OK?
- Do the lights and the acoustic warning system work?



Every week

☞ *Check once a week:*

- Electric fuses
- Cable and grounding connections
- Battery state of charge
- Condition of battery terminals

Battery

The battery may be checked, disconnected, charged and replaced only by a Wacker Neuson service center.

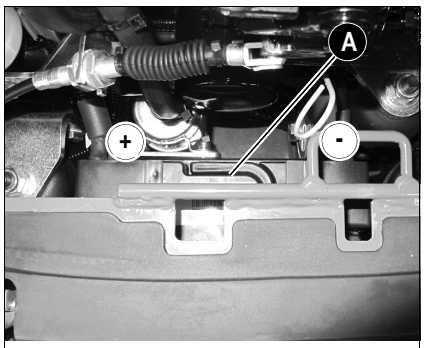


Fig. 226: Battery

5.12 Cleaning and maintenance

WARNING

Injury hazard due to rotating parts!

Rotating parts can cause serious injury or death.

- Open the engine cover only at engine standstill.

WARNING

Burn hazard due to hot surfaces!

Hot surfaces can cause serious burns or death.

- Stop the engine and let it cool down.
- Wear protective equipment.

WARNING

Health hazard due to cleaning agents!

Cleaning agents can be harmful to health.

- Use only suitable cleaning agents.
- Ensure sufficient ventilation.

NOTICE

Damage to rubber and electrical parts when cleaning with solvents.

- Do not use solvents, benzine, or other aggressive chemicals.

NOTICE

Damage to electronics due to water jet.

- Electronic components (e.g. relays, displays) must not be cleaned with a high-pressure cleaner.
- Electric components (e.g. headlight, rotating beacons) must be at a distance of at least 50 cm (20 in) from the jet of the high-pressure cleaner.
- Dry electric components carefully with compressed air and apply contact spray to them.

Environment!

In order to avoid damage to the environment, clean the vehicle only in wash bays and places authorized by the authorities.

Cleaning the machine is divided into 2 separate areas:

- Control stand
- Exterior of the vehicle
- Engine compartment

Washing solvents

- Ensure sufficient room ventilation.
- Wear suitable protective clothing.
- Do not use flammable liquids, such as gasoline or diesel.

Compressed air

- Work carefully.
- Wear safety glasses and protective clothing.
- Do not aim the compressed air at the skin or at other people.
- Do not use compressed air for cleaning your clothing.

High-pressure cleaner

- Cover electric parts.
- Do not point the water jet directly at electric parts and damping material.
- Cover the vent filter on the hydraulic oil reservoir and the filler caps for fuel, hydraulic oil, etc.
- Protect sensitive components from moisture:
  - Do not clean the engine compartment, engine components, electric components and damping material using a high-pressure cleaner.
  - Electrical components (for example alternator, control valves, connector plug at the wiring harness)
  - Control devices and seals
  - Air filter, exhaust etc.
  - Cover tank lock and filter
- Keep a safe distance from the labels.

Volatile and easily flammable anti-corrosion agents and sprays:

- Ensure sufficient room ventilation.
- Fire, open flames and smoking is prohibited.

Control stand

Recommended aids:
- Vacuum cleaner
- Moist cloths
- Brush
- Water with mild soap solution

On the outside of the vehicle

Recommended aids:
- High-pressure cleaner
- Steam jet

Seat belt

Always keep the seat belt clean, as coarse dirt can impair the proper functioning of the seat belt buckle.

Clean the seat belt (while it remains fitted in the vehicle) with a mild soap solution only. Do not use chemical agents as they can destroy the fabric.

Engine compartment

1 Park the vehicle in a wash bay or place.

2 Stop the engine.

3 Clean the vehicle.

Cleaning in a saline environment

1 Park the vehicle in a wash bay or car wash.

2 Check the vehicle for salt deposits or corrosion. Have corrosion removed by a Wacker Neuson service center.

3 Clean the vehicle with a high-pressure cleaner. Clean the vehicle ensuring that there are no salt deposits in places that are difficult to access. Bear in mind the information on cleaning and maintenance.

4 Lubricate the vehicle according to the lubrication plan.

5 Allow the vehicle to dry and check it again for salt deposits.

Loose threaded fittings and attachments

Contact a Wacker Neuson service center.

5.13 Preparatory work before taking out of service

The measures indicated below refer to putting the machine out of operation for 30 days or longer.

- – *see chapter 2.7* ***Safety instructions for maintenance*** on page 2-12
- Store the machine indoors if possible.
- If the machine is stored outdoors, place it on a wooden base and cover it with a watertight tarp to protect it against humidity.
- Check whether oil or other fluids leak from the machine.
- Lower the boom and the stabilizer blade to the ground.
- Clean the engine with a high-pressure cleaner in a suitable place.
  Observe the following chapter – *see chapter* ***High-pressure cleaner*** on page 5-33.
- Carefully clean and dry the entire machine.
- Spray an anti-corrosion agent onto bare metal parts of the machine (for example on the piston rods of hydraulic cylinders).
- Apply grease to all lubrication points.
- Change engine oil.
- Check the oil levels in all units and add oil if necessary.
- Check the hydraulic oil level and if necessary, add oil.
- Fill up the fuel tank to the maximum level.
- Check the coolant, change as required.
- Remove the grounding strap from the battery, or remove the battery and store it in a safe place. Charge the battery and perform battery maintenance at regular intervals.
- Close the exhaust pipe and the air intake opening of the air filter system.

5.14 Maintenance when out of service for a longer period of time

The following measures must be taken if the machine is out of service for more than 30 days.

Putting into operation again

- Remove anti-corrosion agent from the piston rods.
- Charge, install, and connect the battery.
- Remove the seals from the exhaust pipe and the air filter intake.
- Check the condition of the air filter element and replace the element if necessary.
- Check the dust valve.
- Refuel.
- Switch on the fuel prefilter on the upper carriage and the fuel filter on the engine (turn to ON).
- Turn the starter to position 1 for 2 minutes (to supply the engine with fuel).
- If the machine was out of service for over 6 months, change the oil in the gearbox, engine, etc. and the hydraulic oil reservoir.
- Check the engine oil.
- Also replace hydraulic oil filters (return and breather filters) if the machine has been out of service for over 6 months.
- Lubricate the machine according to the lubrication plan.
- Check the levels.
- Check the coolant, change as required.
- Remove the starting key, remove fuse F2 on the right-hand cover.
- Let the engine run 15 seconds.
- Wait 15 seconds.
- Let the engine run 1 minute again.
- Remove the starting key, put fuse F2 back in.
- Start the diesel engine.
- Let the engine run at idling speed at least 15 minutes without load.
- Check the oil levels in all units and add oil if necessary.

5.15 Consumables

Component/application	Fluid/lubricant	Specification	Season/temperature	Capacities [1]
Diesel engine	Engine oil	API: CG-4/CH-4/CI-4 ACEA: E3, E4, E5	– see chapter ***Engine oil types*** on page 5-39	2.5 l (0.66 gal)
		ACEA E3, E4, E5 (SAE10 W 40)[2]		
Hydraulic oil reservoir	Hydraulic oil	HVLP 46[3]	– see chapter ***Hydraulic oil types*** on page 5-38	13.8 ltr. (3.6 gal)
	Biodegradable oil[4]	PANOLIN HLP Synth 46[5]		
		BP BIOHYD SE-S 46[6]		
Grease	Roller and friction bearings	KPF 2 K-20[6] ISO-L-X-BCEB 2[7]	Year-round	As required
	Live ring gears			
	Live ring (ball bearing race)			
	Grease nipples			
Battery terminals	Acid-proof grease[8]	FINA Marson L2	Year-round	As required
Fuel tank[9]	Diesel fuel[10]	ASTM D975-94: 1D, 2D (USA)	Depending on outside temperature Summer or winter diesel fuel	7 ltr. (1.85 gal)
		EN 590 (EU)		
		ISO 8217 DMX (International)		
		BS 2869-A1, A2 (GB)		
		JIS K2204 (Japan)		
		KSM-2610 (Korea)		
		GB252 (China)		
	Biodiesel	EN 14214		
		ASTM D-6751		
Radiator	Coolant[11]	Distilled water + antifreeze ASTM D4985 (reddish)[12]	Year-round	2.9 l (0.76 gal)
		Distilled water + antifreeze ASTM 6210 (violet)[13]		

1. The capacities indicated are approximate values; the oil level check alone is relevant for the correct oil level
   Capacities indicated are no system fills
2. According to DIN 51511
3. According to DIN 51524 section 3
4. Biodegradable hydraulic oil based on saturated synthetic esters with an iodine value of <10, according to DIN 51524, section 3, HVLP, HEES.
5. Dual Power option: During operation with the electro-hydraulic power unit HPU8, there must be no biodegradable hydraulic oil in the excavator or the power unit. Both must be filled with HVLP 46. Contact a Wacker Neuson service center before using power units from other manufacturers.
6. KPF 2 K-20 according to DIN 51502 multipurpose lithium grease.
7. ISO-L-X-BCEB 2 according to DIN ISO 6743-9.
8. Standard acid-proof grease
9. Sulfur content below 0.05%, cetane number over 45
10. In countries where EU Stage IIIA or higher or Tier 4 interim or higher emission regulations apply, diesel fuels with a sulfur content < 15 ppm must be used.
11. Factory filling; Do not mix coolant - observe the coolant compound table; Contact an authorized service center
12. Up to serial no. WNCE0801EPAL00899
13. From serial no. WNCE0801VPAL00900

Hydraulic oil types

Viscosity grade (SAE)	Ambient temperature			
	min. °C	min. °F	max. °C	max. °F
ISO VG32	-20	-4	30	86
ISO VG46	-5	23	40	104
ISO VG68	5	41	50	122

Replacement intervals

Percentage of hammer work	Hydraulic oil	Hydraulic oil filter
20%	every 800 o/h	300 o/h
40%	Every 400 o/h	
60%	Every 300 o/h	100 o/h
Over 80%	Every 200 o/h	

Important information regarding operation with biodegradable hydraulic oil

- Use only the biodegradable oils that have been tested and released by Wacker Neuson.
- Add only biodegradable oil of the same type. In order to avoid misunderstandings, attach a clear label to the hydraulic oil filler neck providing clear information regarding the type of oil currently used. The joint use of two different biodegradable oils can affect the quality of one of the oil types. Therefore ensure that the remaining amount of biodegradable oil complies with the national and regional regulations as you replace it. Observe the manufacturer's indications.
- Do not add mineral oil – the content of mineral oil should not exceed 2% of the system fill in order to avoid foaming problems and to ensure biological degradability.
- When running the vehicle with biodegradable oil, the same oil and filter replacement intervals are valid as for mineral oil.
- Always have the condensation water in the hydraulic oil reservoir drained by a Wacker Neuson service center before the cold season. The water content may not exceed 0.1% by weight.
- The instructions in this Operator's Manual concerning environmental protection are also valid for the use of biodegradable oil.

Subsequent change from mineral oil to biodegradable oil may only be performed by a Wacker Neuson service center.

Engine oil types

Viscosity grade (SAE)	Ambient temperature			
	min. °C	min. °F	max. °C	max. °F
SAE 10W	-20	-4	10	50
SAE 20W	-10	14	10	50
SAE 10W-30	-20	-4	30	86
SAE 10W-40	-20	-4	40	104
SAE 15W-40	-15	5	40	104
SAE 20	0	32	20	68
SAE 30	10	50	30	86
SAE 40	20	68	40	104

5.16 Maintenance plan (overview)

Work description

For servicing and maintenance on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer.

	Maintenance plan/operating hours (o/h)							
	Maintenance work (daily)	Every 50 o/h	Every 250 o/h	every 500 hours	Every 1000 o/h once a year	every 2000 o/h	Customer	Authorized service center
Fluid and filter changes ( ):								
Perform the following oil and filter changes (check oil levels after test run):								
• Engine oil[1]		●	●					●
• Engine oil filter[2]		●	●					●
• Fuel filter[3]		●		●				●
• Water separator					●			●
• Coolant					●			●
• Hydraulic oil filter [4]		●		●				●
• Hydraulic oil[5]				●	●			●
• Drain condensation water from the hydraulic oil reservoir (from serial no. AH02272)				●				●
• Air filter element (up to serial no. AI00875)			●				●	
• Air filter element according to dirt indicator (from serial no. AI00876)[6]					●		●	
Inspection work ( ):								
Check the following material. Refill if necessary:								
• Engine oil	●						●	
• Engine coolant	●						●	
• Fuel	●						●	
• Hydraulic oil	●						●	

5.16 Maintenance plan (overview)

Work description

For servicing and maintenance on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer.

	Maintenance plan/operating hours (o/h)							
	Maintenance work (daily)	Every 50 o/h	Every 250 o/h	every 500 hours	Every 1000 o/h once a year	every 2000 o/h	Customer	Authorized service center
Check the function of the pedals (up to serial no. AI00975) • Clean, lubricate or repair the pedals	●						●	
Check the function of the pedals, they must flip back automatically (from serial no. AI00976) • Clean, lubricate or repair the pedals, check the torsion springs	●						●	
Clean water ducts[7]					●			●
Check radiator for engine and hydraulic oil for dirt. Clean if necessary	●						●	
Check cooling systems and hoses for leaks and pressure (visual check)	●						●	
Air filter (damage)	●						●	
Clean the dust valve	●						●	
Prefilter with water separator: drain water	●						●	
• Cleaning			●				●	
Check V-belt condition and tension	●						●	
Replacing the V-belt				●				●
Check the exhaust system for damage and condition	●						●	
Check the rollbar for damage	●						●	
Check valve clearance. Adjust if necessary					●			●
Clean and adjust the fuel injection pump[8]					●			●
Check and adjust the injection pressure of the injection nozzles, clean the injection needles/nozzles					●			●
Check and adjust injection time[9]					●			●
Empty the fuel tank and check for dirt				●				●
Check battery electrolyte. Add distilled water if necessary		●		●			●	

5.16 Maintenance plan (overview)

Work description

For servicing and maintenance on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer.

	Maintenance plan/operating hours (o/h)							
	Maintenance work (daily)	Every 50 o/h	Every 250 o/h	every 500 hours	Every 1000 o/h once a year	every 2000 o/h	Customer	Authorized service center
Check battery degassing hose (from serial number WNCE0801HPAL03185)					●			●
Check alternator, starter and electric connections, bearing play and function				●				●
Check preheating system and electric connections				●				●
Pressure check of primary pressure limiting valves[10]		●		●				●
Check tracks for cracks and cuts	●						●	
Check the track tension and retention the tracks if necessary	●						●	
Check bearing play of tread rollers, track carrier rollers, front idlers				●				●
Check piston rods for damage	●						●	
Check screw connections of the protective devices (e.g. rollbar, etc.) for tightness	●						●	
Check the threaded fittings for tightness				●				●
Check pin lock	●						●	
Check line fixtures	●						●	
Check indicator lights for correct function	●						●	
Couplings, dirt pile-up on hydraulic system dust caps	●						●	
Check insulating mats in engine compartment for damage/condition		●					●	
Check labels and Operator's Manual for completeness and condition		●					●	
Lights and acoustic warning system[11]		●					●	
Check lubricant on live ring[12]		●		●				●
Check gearing of swivel unit pinion					●			●
Lubrication service ( ):								

5.16 Maintenance plan (overview)

Work description

For servicing and maintenance on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer.

	Maintenance plan/operating hours (o/h)							
	Maintenance work (daily)	Every 50 o/h	Every 250 o/h	every 500 hours	Every 1000 o/h once a year	every 2000 o/h	Customer	Authorized service center
Lubricate the following assemblies/components – *see Maintenance label* on page 5-45:								
• Stabilizer blade	●						●	
• Swiveling console	●						●	
• Swiveling cylinder	●						●	
• Boom	●						●	
• Shovel arm	●						●	
• Attachments	●						●	
• Teeth of live ring					●		●	
• Live ring (ball bearing)	●						●	
• Ball sockets (ISO/SAE changeover option)			●				●	
Functional check ( ):								
Check the function of the following assemblies/components. Rectify if necessary:								
• Lights and acoustic warning system	●						●	
• Check pedal function	●						●	
Leakage check ( ):								
Check for tightness, leaks and chafing: pipes, flexible lines and screw connections of the following assemblies and components. Repair if necessary:								
• Visual check	●						●	
☞ Engine, hydraulic system and hydraulic components	●						●	
☞ Cooling circuit	●						●	

5.16 Maintenance plan (overview)

Work description

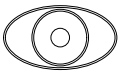
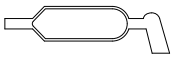
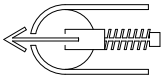
For servicing and maintenance on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer.

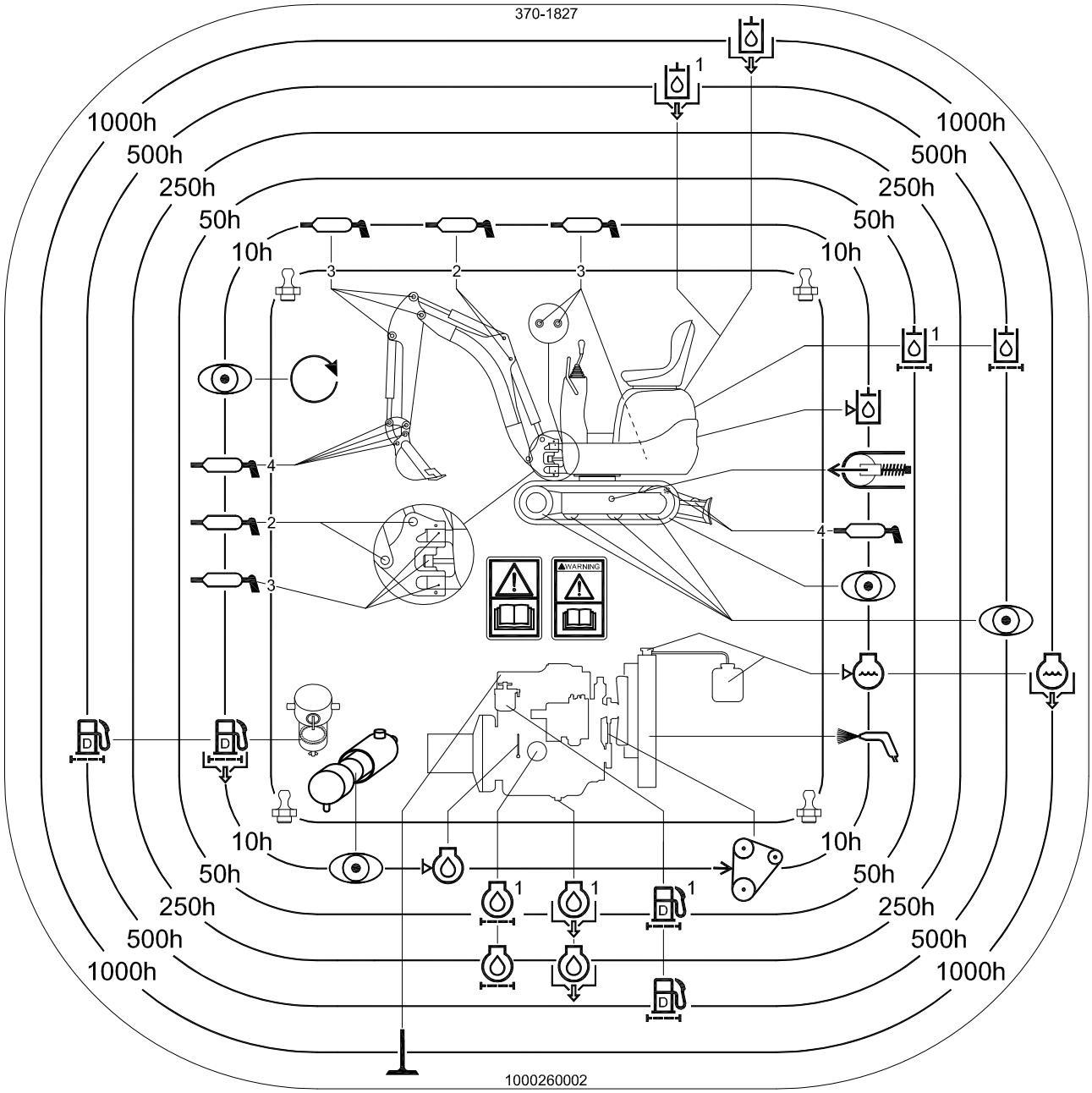
	Maintenance plan/operating hours (o/h)							
	Maintenance work (daily)	Every 50 o/h	Every 250 o/h	every 500 hours	Every 1000 o/h once a year	every 2000 o/h	Customer	Authorized service center
☞ Travel drive	●						●	

1. Drain engine oil the first time after 50 o/h, then every 250 o/h
2. Replace the engine oil filter the first time after 50 o/h, then every 250 o/h
3. Replace the fuel filter the first time after 50 o/h, then every 500 o/h
4. Replace the hydraulic oil filter the first time after 50 o/h, then every 500 o/h
5. Replace the hydraulic oil the first time after 500 o/h, after 1000 o/h the second time, then every 1000 o/h
6. According to the dirt indicator, every 1000 o/h or once a year at the latest. (Replace after 50 o/h when in extensive use in environments with acidic air, such as acid production facilities, steel and aluminum mills, chemical plants and other nonferrous-metal plants)
7. Clean the water ducts every other 1000 o/h servicing
8. Clean and adjust the fuel injection pump every other 1000 o/h servicing
9. Check and adjust injection time every other 1000 o/h servicing
10. Check the first time after 50 o/h, then every 500 o/h
11. Check once a week
12. Check the first time after 50 o/h, then every 500 o/h

5.17 Maintenance label

Explanation of symbols on the maintenance label

Symbol	Assembly	Explanation
	General	Visual check
	General	Grease instructions
	Fuel system	Drain condensation water
	Fuel system	Replace the fuel filter, clean the fuel prefilter
	Radiator	Check the coolant level
	Radiator	Drain and add new coolant
	Engine	Check valve clearance. Adjust if necessary
	Engine	Check the engine oil level
	Engine	Change the engine oil
	Engine	Replace the oil filter
	Engine	Check the V-belt tension
	Hydraulic system	Check oil level
	Hydraulic system	Replace the hydraulic oil
	Hydraulic system	Replace the hydraulic oil filter
	Chassis	Check track tension
	Radiator fins	Cleaning


370-1827
1000h
500h
250h
50h
10h
1
2
3
4
WARNING
D
1000260002

6 Technical data

6.1 Engine

Engine	Model 803	
Product	Yanmar diesel engine	
Type	3TNV70-VNS	3TNV74F-SNNS
	3TNV70-VNSV[1]	
Design	Water-cooled 3-cylinder diesel engine	
Displacement	854 cm³ (52.1 in^3)	993 cm³ (60.6 in^3)
Nominal bore and stroke	70 x 74 mm (2.8 x 2.9 in)	74 x 77 mm (2.9 x 3.0 in)
Power	9.9 kW at 2100 rpm (13.3 hp/2100 rpm)	11.6 kW at 2500 rpm (15.5 hp/2500 rpm)
Max. torque	51.5 Nm at 1500 rpm (38 ft.lbs/1500 rpm)	53 Nm at 1800 rpm (39 ft.lbs/1800 rpm)
Max. engine speed without load	2270 +/− 25 rpm	2675 +/− 25 rpm (2675 +/− 25 rpm)
Idling speed	1300 +/− 25 rpm (1300 +/− 25 rpm)	1300 +/− 25 rpm (1300 +/− 25 rpm)
Fuel injection system	Indirect	
Starting aid	Glow plug	
Exhaust values according to:		
Up to 2012	EPA Tier 4 final[2]	--
Starting from 2012	--[2]	EPA Tier 4 final
From 2019[1]	EU Stage V	

1. Valid for diesel engines with production date starting 2019
2. No EU emissions guideline for diesel engines under 19 kW (25.5 hp)

Information!

The vehicle has a little less output at altitudes over 800 m (2625 ft) above sea level. However, this does not affect excavator operation (3TNV74F-SNNS).

6.2 Travel gear and swivel unit

Travel gear/swivel unit	Model 803
Driving Speed	1.82 km/h (1.1 mph)
Climbing ability	30°/58 %
Track width	180 mm (7 in)
No. of track rollers on either side	2
Ground clearance	132 mm (5 in)
Ground pressure	0.24 kg/cm² (3.4 lbs/in^2)
Upper carriage swivel speed	8 rpm

6.3 Stabilizer blade

Stabilizer blade	Model 803
Width with stabilizer blade folded in/out	700/860 mm (27.6/34 in)

6.4 Operating hydraulics

Work hydraulics	Model 803
Pump (3TNV70)	Twin gear pump 2 x 5 cm^3 (2 x 0.3 in^3)
Pump (3TNV74)	Twin gear pump 2 x 4 cm^3 (2 x 0.24 in^3)
Hydraulic pump displacement (3TNV70)	2 x 11.35 l/min at 2270 rpm (2 x 3 gal/min at 2270 rpm)
Hydraulic pump displacement (3TNV74)	2 x 10.7 l/min at 2675 rpm (2 x 2.8 gpm at 2675 rpm)
Max. operating pressure	170 $^{\pm 3}$ bar (2466 psi)
Filter	Return filter
Hydraulic reservoir capacity	13.8 l (3.65 gal)

6.5 Connection values of Dual Power option

Hydraulic system	
Operating pressure at excavator connections	Max. 170 bar (2466 psi)
Flow rate	Max. 20 l/min (5.3 gal/min)

6.6 Electrical system

Electrics department	
Alternator	12 V 20 A
Starter	12 V 1.1 kW (1.5 hp)
Battery	12 V 30 Ah

Fuses behind the right-hand trim

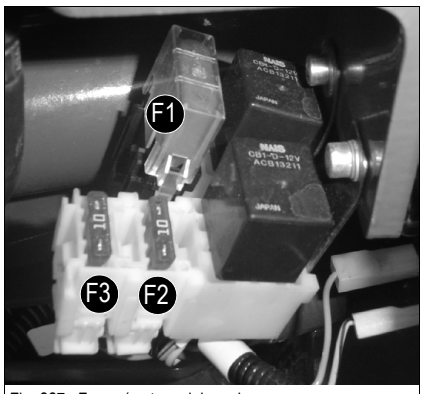


Fig. 227: Fuses (up to serial number WNCE0801CPAL0050)

Fuse no.	Rated current (A)	Protected circuit
F1	40 A	Main fuse; Air-pressure sensor/output adaptation (Yanmar 3TNV74F-SNNS)
F2	10 A	Fuse: relay, indicator, cutoff solenoid
F3	10 A	Fuse: horn, working light 12 V power outlet (up to serial number WNCE0801CPAL0050), travel signal (option)
F4	10 A	12 V power outlet (from serial number WNCE0801TPAL0051)

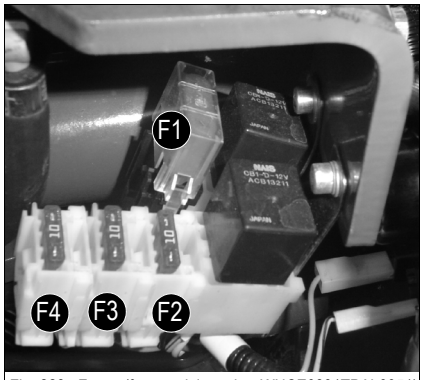


Fig. 228: Fuses (from serial number WNCE0801TPAL0051)

Relays behind the right-hand trim

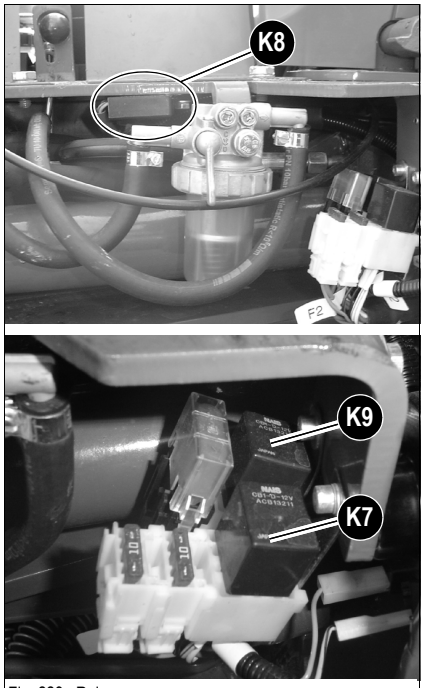


Fig. 229: Relays

Relay no.	Protected circuit
K 7	Starting relay
K 8	Cutoff solenoid time lag relay 1s
K 9	Cutoff solenoid switching relay

Fuses and relays with Dual Power option

If the machine is equipped with the **Dual Power** option, the fuses and relays are located under the base plate.

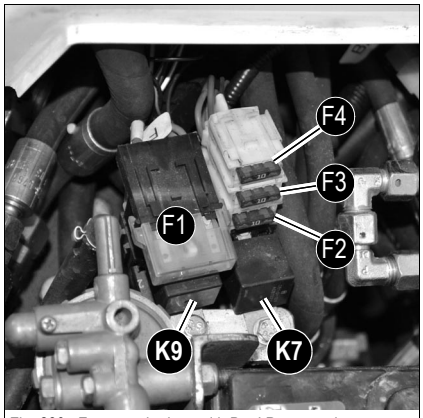


Fig. 230: Fuses and relays with Dual Power option

Fuse no.	Rated current (A)	Protected circuit
F1	40 A	Main fuse; Air-pressure sensor/output adaptation (Yanmar 3TNV74F-SNNS)
F2	10 A	Fuse: relay, indicator, cutoff solenoid
F3	10 A	Fuse: horn, working light 12 V power outlet (up to serial number WNCE0801CPAL0050), travel signal (option)
F4	10 A	12 V power outlet (from serial number WNCE0801TPAL0051)

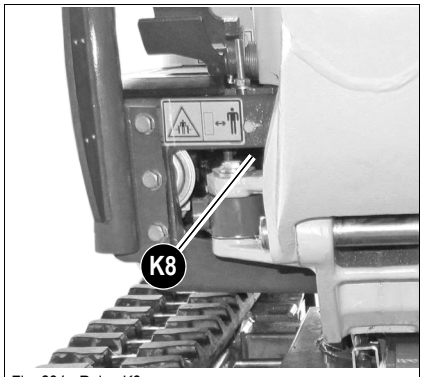


Fig. 231: Relay K8

Relay no.	Protected circuit
K7	Starting relay
K 8	Cutoff solenoid time lag relay 1s
K9	Cutoff solenoid switching relay
K116 **(A)**	Battery monitor

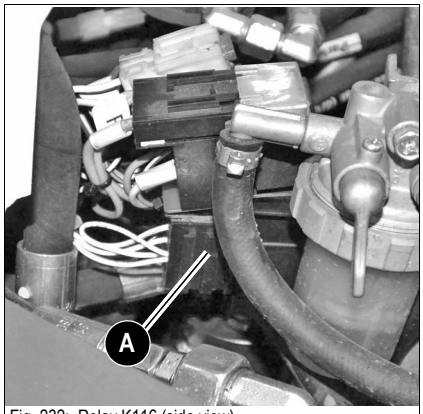


Fig. 232: Relay K116 (side view)

6.7 Noise levels

Sound power level (Yanmar 3TNV70-VNS)	
Sound power level (L_{WA})[1]	93 dB (A)
Uncertainty factor[2]	1.2 dB (A)
Operator-perceived sound pressure level (L_{PA})[3]	77 dB (A)

1. ISO 6395 (EC Directives 2000/14/EC and 2005/88/EC)
2. EN ISO 4871 (EC Directives 2000/14/EC and 2005/88/EC)
3. ISO 6394 (EC Directives 84/532/EEC, 89/514/EEC, 95/27/EEC)

Information!

Measurements performed on asphalted surface.

6.8 Vibration

Vibrations[1]	
Effective acceleration value for the upper extremities of the body (hand-arm vibration)	< Trigger value < 2.5 m/s^2
Effective acceleration value for the body (whole-body vibration)	< 0.5 m/s^2

1. Uncertainty of measurement as per DIN EN 474-1:2014-03

6.9 Coolant compound table

Outside temperature[1]	Distilled water	Coolant[2]
Up to °C (°F)	% by volume	% by volume
-37 (-34,6)	50	50

1. Use the 1:1 concentration for warm outside temperatures, too, to ensure protection against corrosion, cavitation, and deposits.
2. Do not mix the coolant with other coolants.

6.10 Weight

803 without rollbar	
Operating weight [1]	1032 kg (2275 lbs)
Transport weight[2]	935 kg (2061 lbs)
803 with rollbar	
Operating weight[1]	1087 kg (2396 lbs)
Transport weight[2]	990 kg (2182 lbs)

1. Operating weight: basic machine + full fuel tank + bucket (250 mm/10 in) + operator (75 kg/165 lbs).
2. Transport weight: basic vehicle + 10% fuel tank capacity.

Information!

The actual machine weight depends on the selected options and must be read off the type label.
Add the weight of all subsequently installed equipment to the weight of the machine.
Weight indications can vary by +/- 2%.

6.11 Dimensions (up to serial no. AI00966)

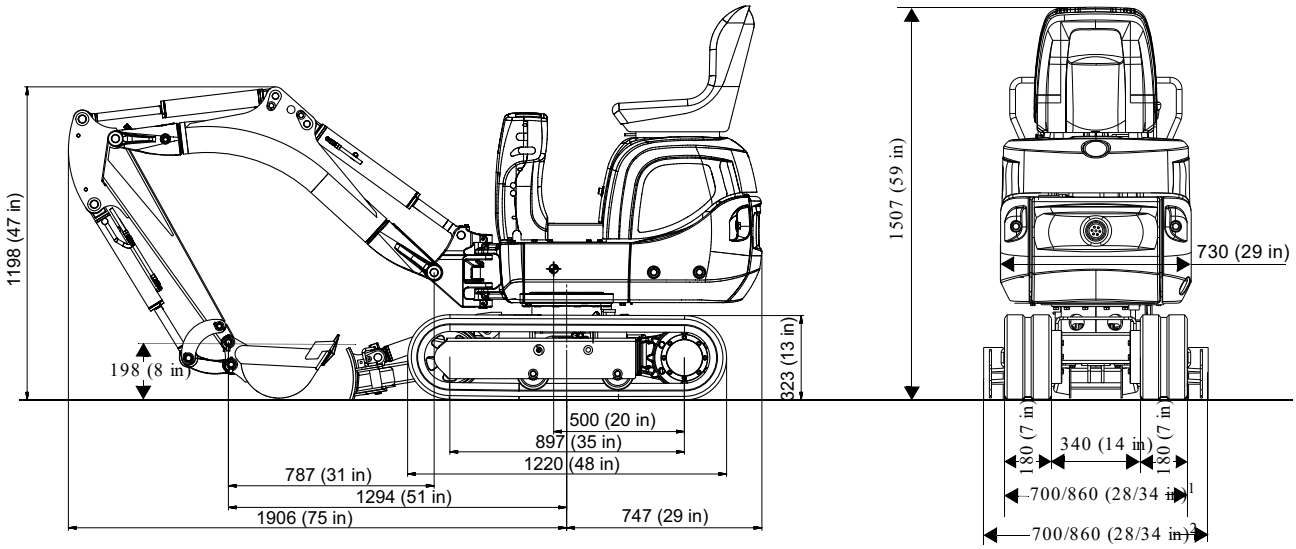
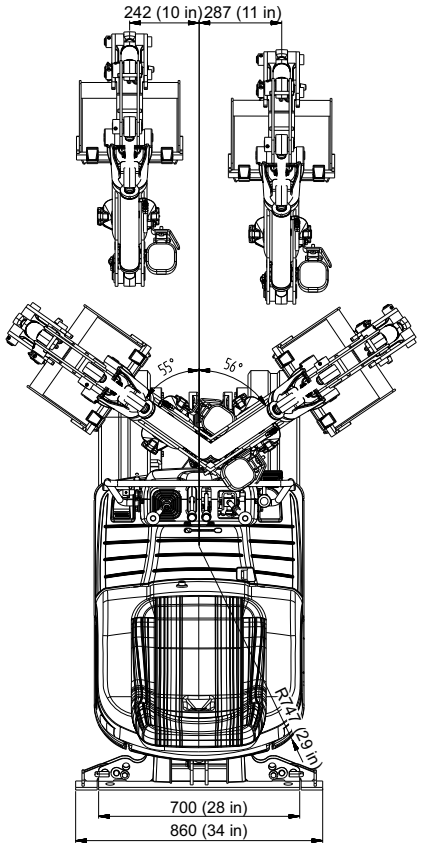


Fig. 233: Vehicle dimensions (model 803)

1. Retracted / extended telescopic undercarriage
2 folded/unfolded stabilizer blade



Main data	Model 803
Height (transport position)	1507 mm (59 in)
Upper carriage width	730 mm (29 in)
Width retracted / extended telescopic undercarriage	700/860 mm (28/34 in)
Width with stabilizer blade folded in/out	700/860 mm (28/34 in)
Transport length	2747 mm (9')
Max. digging depth	1731 mm (68 in)
Max. vertical digging depth	1349 mm (53 in)
Max. digging height	2863 mm (9'-5")
Max. tilt-out height	2035 mm (80 in)
Max. digging radius	3074 mm (10'-1")
Max. reach at ground level	3028 mm (9'-11")
Max. breakout force at bucket tooth	8.9 kN (2001 lbf)
Max. tearout force	4.5 kN (1012 lbf)
Min. tail end slewing radius	747 mm (29 in)
Max. rear projection of upper carriage turned 90° with retracted/extended telescopic undercarriage with dozer blade folded in/out	397/ 317 mm (16/ 12 in) 397/ 317 mm (16/ 12 in)
Max. boom displacement to bucket center (right side)	287 mm (11 in)
Max. boom displacement to bucket center (left side)	242 mm (10 in)

6.12 Dimensions with rollbar (from serial number AI00967)

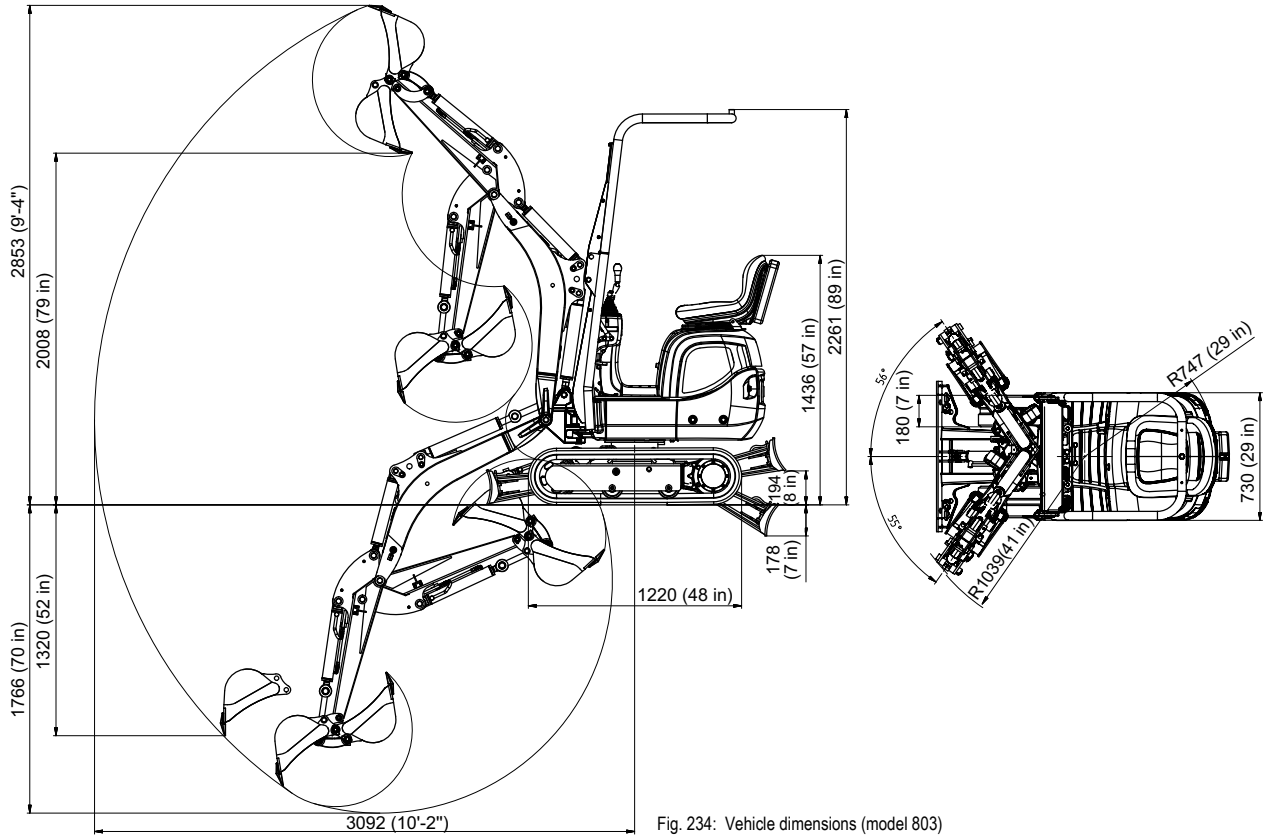


Fig. 234: Vehicle dimensions (model 803)

Main data	Model 803
Height	2261 mm (89 in)
Upper carriage width	730 mm (29 in)
Width retracted / extended telescopic undercarriage	700/860 mm (28/34 in)
Width with stabilizer blade folded in/out	700/860 mm (28/34 in)
Transport length	2747 mm (9')
Max. digging depth	1766 mm (70 in)
Max. vertical digging depth	1320 mm (52 in)
Max. digging height	2853 mm (9'-4")
Max. tilt-out height	2008 mm (79 in)
Max. digging radius	3092 mm (10'-2")
Max. reach at ground level	3046 mm (10')
Max. breakout force at bucket tooth	8.9 kN (2001 lbf)
Max. tearout force	4.5 kN (1012 lbf)
Min. tail end slewing radius	747 mm (29 in)
Max. rear projection of upper carriage turned 90° with retracted/extended telescopic undercarriage with dozer blade folded in/out	 397 mm/317 mm (16/12 in) 397 mm/317 mm (16/12 in)
Max. boom displacement to bucket center (right side)	287 mm (11 in)
Max. boom displacement to bucket center (left side)	242 mm (10 in)

6.13 Dimensions without rollbar (from serial number AI00967)

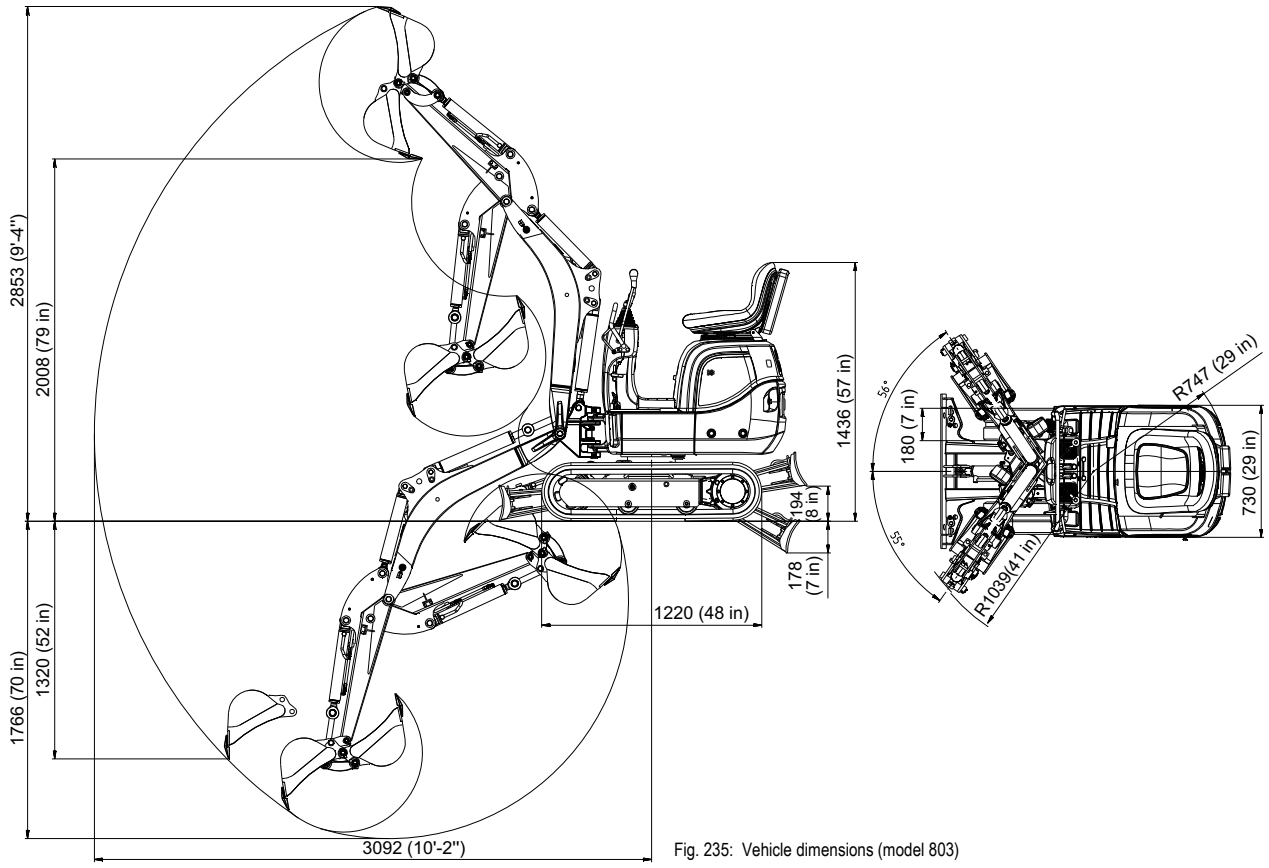


Fig. 235: Vehicle dimensions (model 803)

Main data	Model 803
Height	1436 mm (57 in)
Upper carriage width	730 mm (29 in)
Width retracted / extended telescopic undercarriage	700/860 mm (28/34 in)
Width with stabilizer blade folded in/out	700/860 mm (28/34 in)
Transport length	2747 mm (9')
Max. digging depth	1766 mm (70 in)
Max. vertical digging depth	1320 mm (52 in)
Max. digging height	2853 mm (9'-4")
Max. tilt-out height	2008 mm (79 in)
Max. digging radius	3092 mm (10'-2")
Max. reach at ground level	3046 mm (10')
Max. breakout force at bucket tooth	8.9 kN (2001 lbf)
Max. tearout force	4.5 kN (1012 lbf)
Min. tail end slewing radius	747 mm (29 in)
Max. rear projection of upper carriage turned 90° with retracted/extended telescopic undercarriage with dozer blade folded in/out	 397 mm/317 mm (16/12 in) 397 mm/317 mm (16/12 in)
Max. boom displacement to bucket center (right side)	287 mm (11 in)
Max. boom displacement to bucket center (left side)	242 mm (10 in)

6.14 Lift capacity tables 803

Safety instructions – lift capacity table

DANGER

Crushing hazard due to tipping over of vehicle!

The vehicle causes serious injury or death when it tips over.

- The weight of the attachment and load must be subtracted from the weight specified in the corresponding column in the table.
- Pay attention to the density of the load.
- Do not exceed the weights indicated in the lift capacity tables.
- Hoist operation is prohibited with this vehicle.
- Only perform work with the telescopic undercarriage extended.

NOTICE

If the specified lifting capacity is exceeded, there is a risk of property damage due to the vehicle tipping over.

- Do not exceed the weights indicated in the load diagrams.

Information!

The indications are only approximate values. Attachments, uneven ground and soft or bad ground conditions affect lift capacity. The operator must take these influences into account.

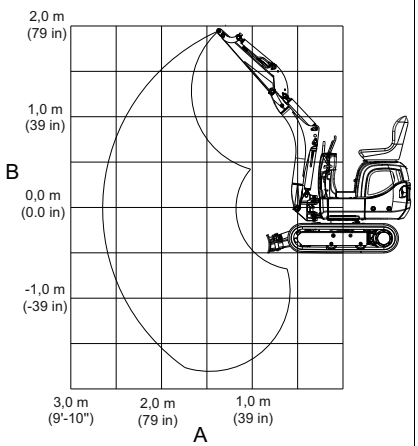


Fig. 236: Lift capacity table (model 803)

A	Reach from live ring center
B	Height

All table indications in kg (lbs) and horizontal position on firm and level ground, and without bucket or attachment.

Calculation basis: according to ISO 10567.

Setting pressure on boom cylinder: 17,000 kPa (2466 psi)

The machine's lift capacity is restricted by the hydraulic output and the hydraulic system's stabilizing features.

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

The lift capacity applies under the following conditions:

- Lubricants and engine/vehicle fluids at the mandatory levels
- Full fuel tank
- Machine at operating temperature
- Operator weight: 75 kg (165 lbs)
- Telescopic travel gear extended

Longitudinal direction, stabilizer blade at front and raised

A / B			2.5 m (98 in)	2.0 m (79 in)	1.5 m (59 in)	1.0 m (39 in)
	A max (m/ft)	kg/lbs				
2.4 m (94 in)	1,41 (4.61)	216 (477)	--	--	--	--
2.0 m (79 in)	2,03 (6.64)	205 (453)	--	203 (448)	--	--
1.5 m (59 in)	2,40 (7.86)	163 (358)	--	189 (416)	--	--
1.0 m (39 in)	2,59 (8.49)	142 (314)	151 (332)	212 (469)	247 (544)	--
0.5 m (20 in)	2,65 (8.7)	135 (298)	147 (325)	204 (450)	311 (685)	--
0.0 m (0.0 in)	2,60 (8.52)	137 (303)	145 (319)	197 (434)	296 (653)	570 (1257)
−0.5 m (−20 in)	2,41 (7.91)	146 (323)	--	194 (428)	292 (644)	561 (1236)
−1.0 m (−39 in)	2,05 (6.73)	138 (304)	--	149 (328)	243 (536)	418 (922)

Longitudinal direction, stabilizer blade at front and lowered

A / B			2.5 m (98 in)	2.0 m (79 in)	1.5 m (59 in)	1.0 m (39 in)
	A max (m/ft)	kg/lbs				
2.4 m (94 in)	1,41 (4.61)	216 (477)	--	--	--	--
2.0 m (79 in)	2,03 (6.64)	205 (453)	--	203 (448)	--	--
1.5 m (59 in)	2,40 (7.86)	191 (420)	--	189 (416)	--	--
1.0 m (39 in)	2,59 (8.49)	177 (391)	185 (407)	217 (478)	247 (544)	--
0.5 m (20 in)	2,65 (8.70)	166 (365)	184 (407)	247 (544)	366 (807)	--
0.0 m (0.0 in)	2,60 (8.52)	155 (343)	171 (377)	247 (544)	379 (835)	678 (1495)
−0.5 m (−20 in)	2,41 (7.91)	146 (323)	--	215 (475)	325 (718)	561 (1236)
−1.0 m (−39 in)	2,05 (6.73)	138 (304)	--	149 (328)	243 (536)	418 (922)

Longitudinal direction, stabilizer blade at rear

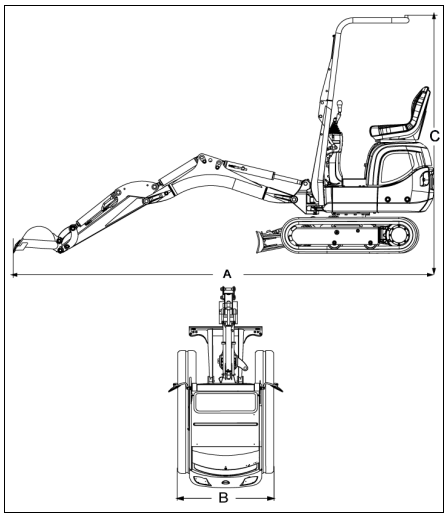
A / B			2.5 m (98 in)	2.0 m (79 in)	1.5 m (59 in)	1.0 m (39 in)
	A max (m/ft)	kg/lbs				
2.4 m (94 in)	1,41 (4.61)	216 (477)	--	--	--	--
2.0 m (79 in)	2,03 (6.64)	205 (453)	--	203 (448)	--	--
1.5 m (59 in)	2,40 (7.86)	175 (386)	--	189 (416)	--	--
1.0 m (39 in)	2,59 (8.49)	154 (339)	162 (358)	217 (478)	247 (544)	--
0.5 m (20 in)	2,65 (8.70)	146 (322)	159 (351)	220 (484)	335 (738)	--
0.0 m (0.0 in)	2,60 (8.52)	148 (327)	156 (344)	213 (469)	320 (705)	618 (1363)
−0.5 m (−20 in)	2,41 (7.91)	146 (323)	--	210 (462)	316 (696)	561 (1236)
−1.0 m (−39 in)	2,05 (6.73)	138 (304)	--	149 (328)	243 (536)	418 (922)

Crosswise

A / B			2.5 m (98 in)	2.0 m (79 in)	1.5 m (59 in)	1.0 m (39 in)
	A max (m/ft)	kg/lbs				
2.4 m (94 in)	1,41 (4.61)	216 (477)	--	--	--	--
2.0 m (79 in)	2,03 (6.64)	167 (367)	--	170(376)	--	--
1.5 m (59 in)	2,40 (7.86)	126 (277)	--	172 (378)	--	--
1.0 m (39 in)	2,59 (8.49)	109 (240)	116 (255)	166 (366)	247 (544)	--
0.5 m (20 in)	2,65 (8.70)	103 (227)	113 (248)	158 (347)	241 (531)	--
0.0 m (0.0 in)	2,60 (8.52)	104 (230)	110 (242)	150 (332)	226 (499)	431 (951)
−0.5 m (−20 in)	2,41 (7.91)	115 (253)	--	148 (325)	222 (490)	433 (955)
−1.0 m (−39 in)	2,05 (6.73)	138 (304)	--	149 (328)	225 (497)	418 (922)

Information

The shipping document describes several basic settings and functions of the vehicle. The vehicle operator's manual contains further important safety instructions. The operator must familiarize themselves with all instructions and notices before commissioning the vehicle and adhere to them. The vehicle operator's manual must be completely read before commissioning the vehicle.

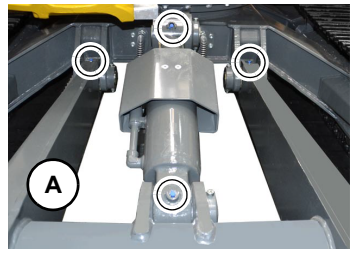


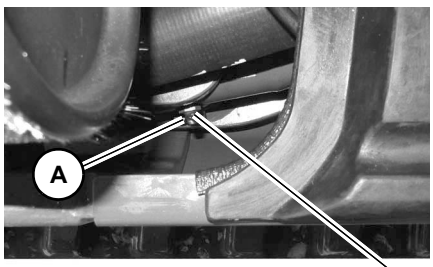
Dimensions		
A	Transport length	2747 mm (9')
B	Width with retracted telescopic travel gear	700 mm (28 in)
	Width with extended telescopic travel gear	860 mm (34 in)
C	Height with rollbar	2261 mm (89 in)
	Height without rollbar	1436 mm (57 in)

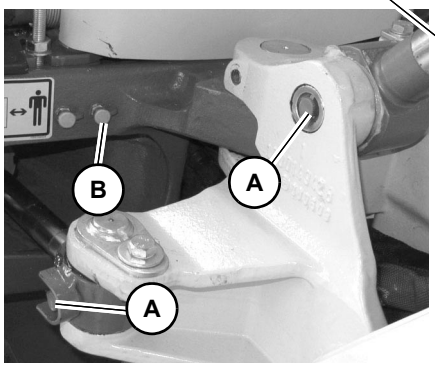
Weight	Without rollbar	With rollbar
Transport weight[1]	1032 kg (2275 lbs)	1087 kg (2396 lbs)
Operating weight[2]	935 kg (2061 lbs)	990 kg (2182 lbs)
Full fuel tank	+ 6 kg (13 lbs)	

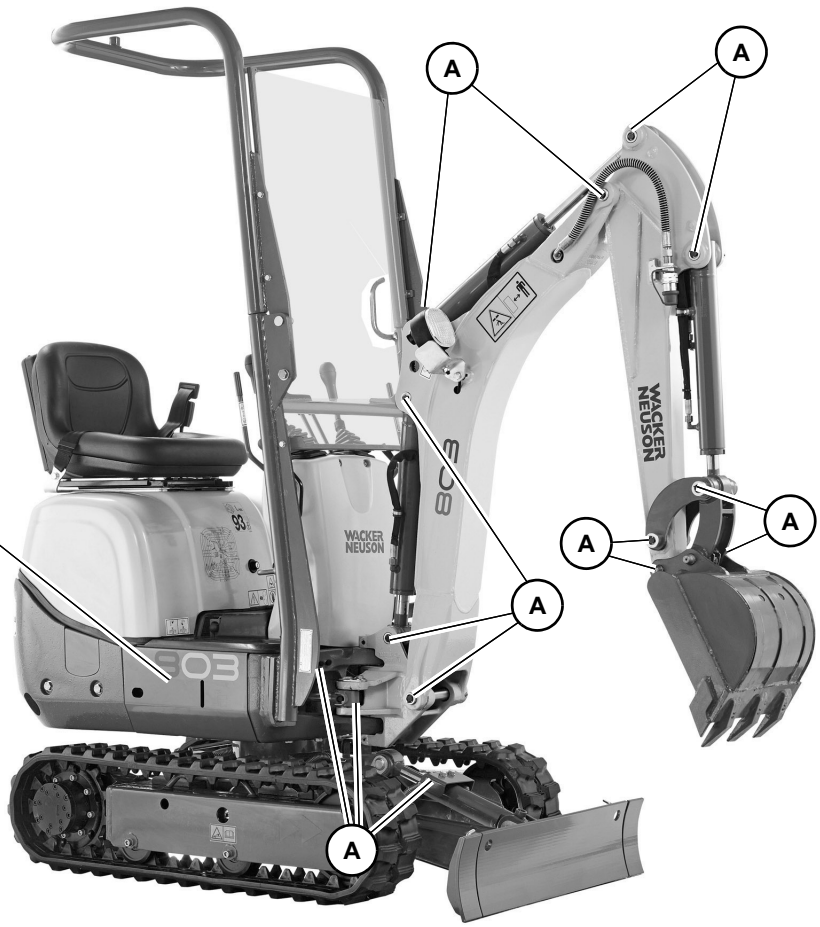
1. Transport weight: basic vehicle + 10% fuel tank capacity
2. Operating weight: basic machine + full fuel tank + bucket (250 mm/10 in) + operator (75 kg/165 lbs)

Lubrication points





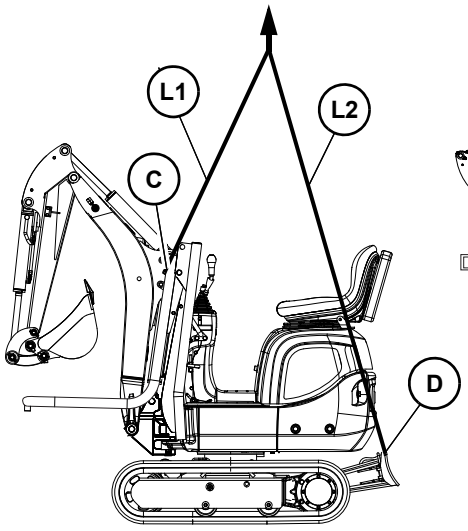


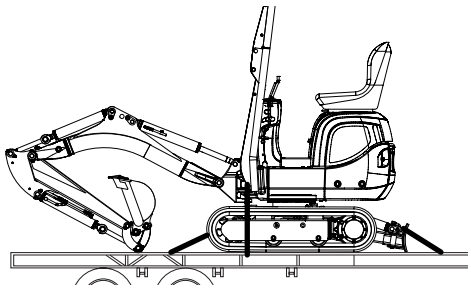


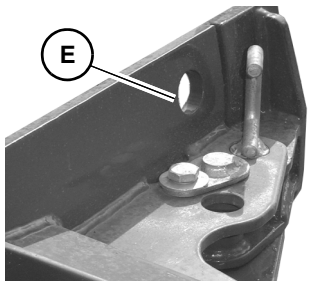
A: apply grease daily

B: apply grease once a week

Transportation

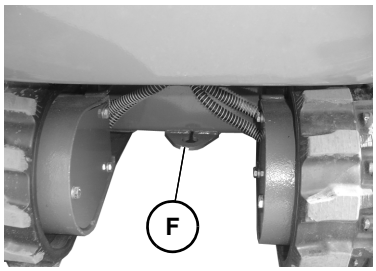




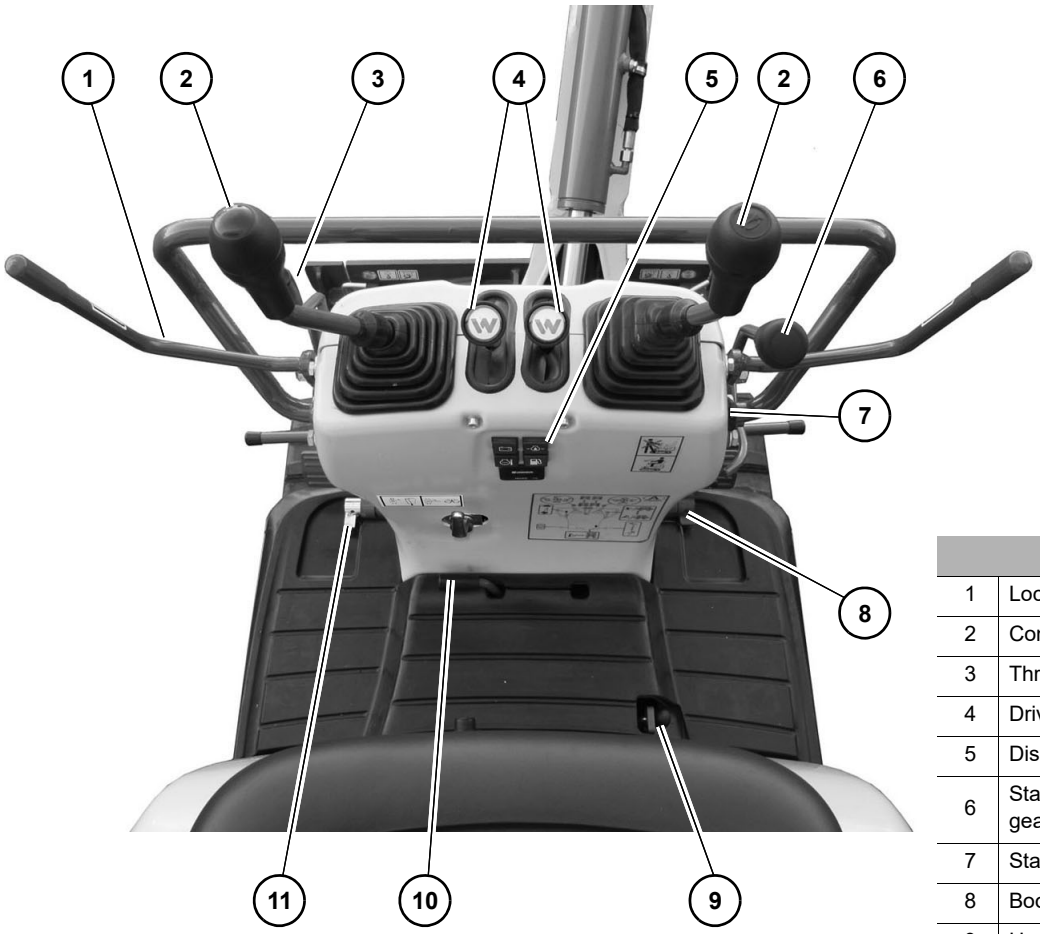


L1: 1054 mm (42 in)
L2: 1718 mm (68 in)

C: boom lifting lug (1)
D: dozer blade lifting lugs (2)
E: dozer blade lashing eyes (2)
F: rear travel gear lashing eyes (1)



Brief overview of operation



Control elements	
1	Lock lever
2	Control lever left/right
3	Throttle
4	Drive levers
5	Display element
6	Stabilizer blade/telescopic travel gear lever
7	Starting key
8	Boom swivel pedal
9	Upper carriage lock
10	Changeover lever Stabilizer blade operation/ Telescopic travel gear
11	Auxiliary hydraulics pedal

Wacker Neuson Linz GmbH keep abreast of the latest technical developments and constantly improve their products. For this reason, we may from time to time need to make changes to figures and descriptions in this documentation that do not reflect products that have already been delivered and that will not be implemented on these vehicles.

Technical data, dimensions and weights are only given as an indication. Responsibility for errors or omissions not accepted.

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