APR 52/75 APR 58/75

VIBRATION PLATE

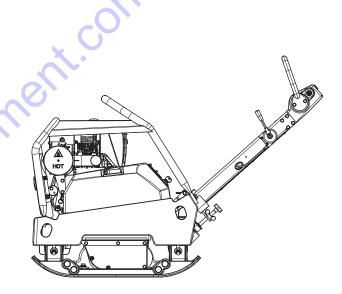
HATZ 1B50E HATZ 1B50E DPF

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Translation of Original Operation Manual

From Serial No. 3000001

2-00002085 EN © 07/2024

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EG-Konformitätserklärung

EC-Declaration of Conformity

gemäß Maschinen-Richtlinie 2006/42/EG, Anhang II A und Geräuschrichtlinie 2000/14/EG as defined by the Machinery directive 2006/42/EC Annex II A and Noise directive 2000/14/EC

Ammann Verdichtung GmbH

Manufacturer (name and adress):	Josef-Dietzgen-Straße 36 53773 Hennef GERMANY						
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Hiermit erklären wir, dass die Maschine (Typ) Herewith we declare that the machine (Type)	APR 52/75	APR 52/75	APR 58/75	APR 58/75			
	HATZ 1B50E	HATZ 1B50E DPF	HATZ 1B50E	HATZ 1B50E DPF			
Leistung / Output / Puissance / Capacità:	7.6 kW	7.6 kW	7.6 kW	7.6 kW			
Seriennummer: Serial number:		onen siehe Typenschil olate for more informa					
			YO.				
folgenden einschlägigen Bestimmungen entspricht: complies with the following provisions applying to it:	2006/42/EG 2006/42/EC	2000/14/EG 2000/14/EC	2005/88/EG 2005/88/EC	2014/30/EG 2014/30/EC			
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Angewandte harmonisierte Normen : Applied harmonized standards:	EN 500-1 EN 500-4						
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Die benannte Stelle nach 2000/14/EG The notified body of 2000/14/EC	TÜV Rheinland LG Tillystraße 2 90431 Nürnberg GERMANY Kenn-Nr. 0197	A Products GmbH					
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Konformitätsbewertung nach Anhang VIII aus 2000/14/EG valuation of conformity to Annex VIII of 2000/14/EC	ISO 9001 Zertifika ISO 9001 certifica		09100 67054				
Gemessener Schallleistungspegel L _{WA,m} Measured sound power level L _{WA,m}	105 dB	105 dB	105 dB	105 dB			
Garantierter Schallleistungspegel $L_{WA,m}$ Guaranted sound power level $L_{WA,m}$	108 dB	108 dB	108 dB	108 dB			
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Hennef, 15.07.2024	Thomas	s Frenzel, MD&COO /	i.V. Mark Pütz, Hof	R&D			

Ort, Datum

Place, date

Unterschrift, Angabe der Funktion im Unternehmen

Signature, acting in the company

Aufbewahrung der technischen Unterlagen bei o.g. Person. Technical documents are kept by the above mentioned person.

Hersteller (Name und Anschrift):

Imprint

This document was written by the technical editors of Ammann Verdichtung GmbH.

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Ammann Verdichtung GmbH Josef-Dietzgen-Straße 36 53773 Hennef Germany

Telefon: +49 2242 8802-0 Fax: +49 2242 8802-59 E-mail: info.avd@ammann.com

Identification

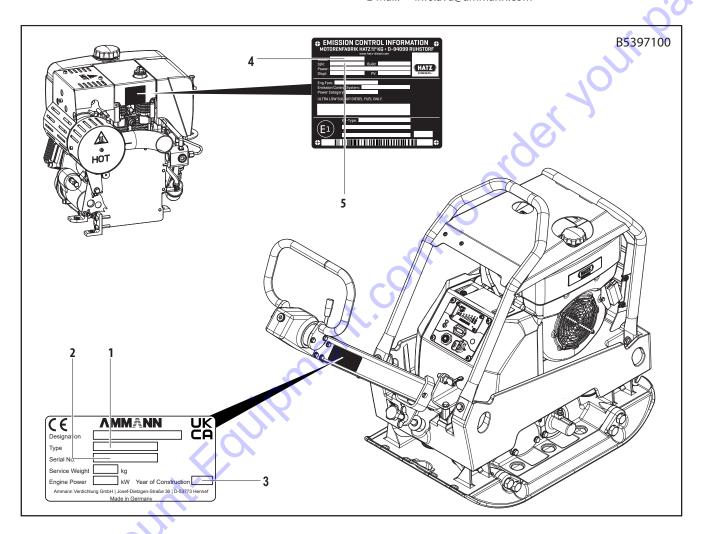
Identification of the machine

Enter the following information in the operating instructions. This enables the instructions to be clearly assigned to the appropriate machine. The information can be found on the rating plate and the motor rating plate.

Manufacturer information

Ammann Verdichtung GmbH Josef-Dietzgen-Straße 36 53773 Hennef Germany

Telefon: +49 2242 8802-0 Fax: +49 2242 8802-59 E-Mail: info.avd@ammann.com



1.	Machine type:	
2.	Machine no:	
3	Machine year of construction:	
4.	Engine type:	
5.	Engine no:	

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1. Introduction

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1.1 Purpose of the operating instructions

You must read these operating instructions before you operate the plate compactor for the first time or when you are instructed to perform other work on the plate compactor.

Using and handling the plate compactor described below is not a matter of course. It is explained in detail in the accompanying technical documentation.

Pay particular attention to the chapter on safety instructions.

1.1.1 Operating instructions

These instructions are to be considered a part of the machine. They must be kept carefully near the machine during the entire service life of the machine. These instructions must also be passed on to subsequent owners or users of the machine.

Using these instructions

- makes it easier to get familiar with the machine
- avoids malfunctions caused by improper operation.

Observing the maintenance instructions

- increases the reliability of the machine during its utilization on the construction site
- increases the service life of the machine
- reduces repair costs and downtimes.

Residual risks

The operating instructions inform and warn you of residual risks against which risk reduction by design and protective measures is not or not completely effective.

Keep these instructions always at the place where the machine is used. Operate the machine only after instruction and in compliance with these instructions.

1.2 Orientation in the operating instructions

Representation of general information icons

These operating instructions contain the following general information icons to guide you, the reader, through the operating instructions and to provide you with essential information.

Pictogram	Meaning		
_	Caution - material damage possible		
İ	This pictogram tells you that the machine can be damaged during an action if the specified actions are not observed and carried out correctly.		
	Important information		
i	This pictogram indicates essential additional information.		
	Information about the documentation		
	This pictogram tells you that parts of the documentation require special or additional attention (such as supplier instructions, etc.)		

1.2.1 Representation of warning

Potentially dangerous operations must be performed when working with the machine. These actions are preceded by warnings that must be observed



Important information on the warnings in the operating instructions

- Observe all warnings on the machine and in the documentation, and be particularly careful in these cases. Also, communicate all warnings to other users.
- Warnings (as well as requirements and prohibitions) are for your personal protection!

1.2.2 Design of the warnings in the operating instructions

Prefixed warnings on the product:

A DANGER



Identifies an imminent hazard that will cause serious or fatal injuries if not avoided.

! WARNING



Identifies a hazard that can result in serious or fatal injuries if not avoided.

! CAUTION



Identifies a hazard that can cause light injuries if not avoided.

IMPORTANT



Identifies a situation that can cause material damage to the machine if not avoide.

ENVIRONMENT



Indicates an environmental hazard that may cause damage to the environment.

NOTE



Supplementary information on operating the machine.

Embedded warnings within an action (example):

- 1. Action
- 2. Action



WARNING! Danger of suffocation from exhaust fumes. Start the engine only outdoors or in well-ventilated areas.

- 4. Action
- 5. Action

Symbols and pictograms used in the document

The warnings are always used together with an icon or a pictogram. These icons and pictograms often identify the source of danger and warn of hazardous areas, risks or obstacles. They also inform the user about the recommended personal protective equipment, requirements and prohibitions.

Warning of hot surfaces Warning of chemical burns Warning of suspended loads Warning of crushing injuries Warning of hazardous substances or mixtures Warning of danger of crushing fingers	Pictogram	Meaning	Pictogram	Mean
Warning of chemical burns Warning of suspended loads Warning of crushing injuries Warning of hazardous substances or mixtures Warning of danger of crushing fingers Warning of danger of crushing fingers		Warning of a dangerous point		Warn
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Pictogram	Meaning
	Warning of fire hazard
	Explosion hazard
4	Warning of electrical voltage
<u> </u>	Caution possible damage to property
	Warning of environmentally hazardous substances or mixtures
	No smoking, sparks or naked flames
	No access for persons with pacemakers or implanted defibrillators

Pictogram	Meaning	Application	Danger
0	General commandment		
	Read the operating instructions		
	Use hearing protection	To protect against hearing injuries.	Excessive noise pollution.
	Use eye protection	To protect against injuries to the eyes.	Penetration of foreign bodies or acids.
	Use foot protection	Use to protect against injuries to the feet.	Impacts or blows to the feet with objects or contact with hot surfaces and chemicals
	Use hand protection	Use to protect against injury to hands.	Impacts or blows to the hands with objects or contact with hot surfaces and chemicals.
	Use protective clothing	Use during maintenance or when working with the machine.	Chemicals, heat and cold.
	Use head protection	Use to protect against injuries to the head.	Objects falling on the head or impact with the head against obstacles.
	Use respiratory protection	Use to protect against injury to the respiratory tract.	Escaping toxic vapors and gases.
THE STATE OF THE S	Keep away from children		

2. Safety, health and environmental regulations



2.1 Intended use

This machine may only be used for:

- Any compaction work in civil engineering and road construction. Compacting is possible with
 - soil materials, such as sand, gravel, slag, crushed stone.
 - paving stones.

Any other utilization is not in accordance with the intended use and is therefore improper. The safety of the personnel working with the machine can be impaired in such a case. The manufacturer accepts no liability for any damage resulting from such use.

The operational safety of the machine is only ensured if the machine is used as intended.

Intended use also includes compliance with all the information in these instructions.

2.2 Foreseeable misuse

Foreseeable misuse (abuse) includes:

- Operation by personnel who have not been instructed in using the machine.
- · Weighting the machine.
- · Riding on the machine.
- · Using the machine as an attachment.
- Operation in inclined positions of more than 25°.
- · Noncompliance with these instructions.
- Noncompliance with the safety instructions.
- Using on:
 - · Hard concrete.
 - Driving with vibration on a set bitumen surface.
 - Heavily frozen soil.
 - Ground that is not able to support the machine.
 - · Operation in the vicinity of precipices.

2.3 Conversion and modification

Any unauthorized modifications, additions or conversions to the machine are not permitted for safety reasons.

Spare parts and special equipment not supplied by us are not approved by us either. Installing and/or using such material can impair the handling and operating safety of the machine.

Any liability of the manufacturer is excluded for damage caused by using non-genuine parts or special equipment.

2.4 Operating personnel

Only trained, instructed persons over 18 years of age who have been authorized to do so are allowed to move and operate the machine. The responsibilities must be clearly defined and adhered to during operation.

In deviation from this, young people may be employed to the extent necessary to achieve their training objective and provided that their safety is ensured by a supervisor.

Persons under the influence of alcohol, medication or drugs are not allowed to operate, maintain or repair the machine.

Maintenance and repair, especially of hydraulic systems and electronic components, require special knowledge and may only be carried out by skilled personnel (mechanics for construction machinery, agricultural machinery).

2.5 Inspection

Road rollers, trench rollers and plate compactors must undergo a safety inspection by an expert as required by the conditions of use and the operating conditions, but at least once a year.

Residual risks 2.6

Although this Ammann machine was built in accordance with the current state of the art and the applicable rules of technology, it can still pose a risk to persons and property if

- it is not used as intended
- it is operated by untrained and unsuitable personnel
- it is improperly modified or converted
- the safety regulations are not observed

Consequently, each person involved in operation, maintenance or repair of the machine must read and observe the operating instructions and, in particular, the safety regulations. If necessary, the operating company must request this to be confirmed by a signature.

In addition, the following must be instructed and complied with:

- Applicable regulations for the prevention of accidents
- Generally recognized safety rules
- Country-specific regulations

Residual hazards in individual life phases and tasks

2.7.1 Transportation

During the transportation of the machine, the dead weight of the machine poses a crushing hazard. Incorrect handling can cause crushing of limbs and serious injuries. Consequently, observe the following instructions:

- Always switch off the engine when you load or transport the machine.
- Observe the transportation instructions in this document.
- Only use suitable means of transport and lifting gear of sufficient load-bearing capacity.
- Attach suitable slings to the lashing points provided.
- Secure the machine against tilting or slipping.
- Never stay under a suspended load. There is danger to life!
- Secure the machine also on the transport vehicle against rolling, slipping and overturning.

2.7.2 Operation

o to Dis

During the operation of the machine, there are various residual hazards that arise from the intended use of the machine and cannot be eliminated by the design. Consequently, observe the following instructions:

2.7.3 Prior to starting

- Wear personal protective equipment (safety shoes, sound-insulating equipment, etc.).
- Familiarize yourself with the operating and control elements and with the operation of the machine.
- Check to ensure that all safety devices are properly in place.
- Never start the machine with defective instruments or control elements. There is a risk of injury!
- Look at your work environment and prepare it for working on it. This includes, among other things:
 - Removing obstacles from the working area.
 - Checking the load-bearing capacity of the ground.
 - Providing necessary protection elements.
 - The points listed here are frequently occurring activities in connection with the field of application of the machine. The list is not exhaustive and depends on the particular working environment. Therefore, always adapt it to your working environment.

2.7.4 Starting

- Starting and operating the machine in potentially explosive atmospheres is prohibited!
- Strictly observe the procedures to switch the machine on and off and the control indicators explained in the operating instructions.
- A machines with an electrical starter may only be started and operated from the control panel. Non-compliance will result in damage to the electronic system.
- Starting with battery jumper cables:



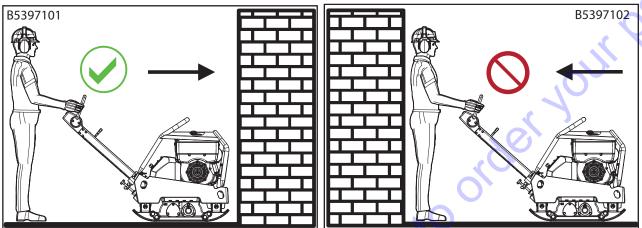
Always connect the ground cable last and disconnect it first! Connect «Plus» to «Plus» and «Minus» to «Minus» (ground cable). Incorrect connection will cause serious damage to the electrical system.

Starting in closed rooms, tunnels, galleries or deep trenches

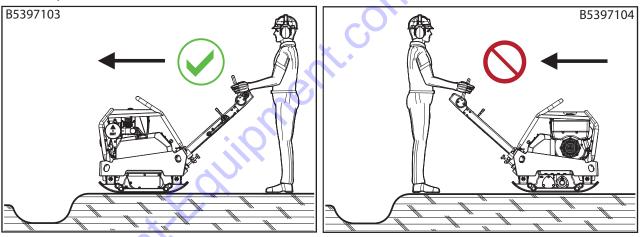
WARNING! Engine exhaust gases are dangerous to life! When operating the machine in a closed room, tunnel, gallery or deep trench, make sure that there is sufficient breathable air to ensure good health. Wear respiratory protection!

2.7.5 Guiding the machine

- Prior to starting the operation, check the effectiveness of the safety devices and brakes. Inoperative protective devices and brakes
- you discover any defects on the safety devices or other defects that affect the safe operation of the machine, stop machine operation immediately and eliminate the defect.
- · Never fasten operating devices that are intended to adjust themselves automatically when released.
- When compacting near buildings or over pipelines or similar objects, check the effect of the vibration on the building or pipelines and stop compaction work if necessary. Always:
 - Guide the machine such that the machine operator can not suffer crushing injuries (between the machine and obstacles such as buildings, walls or objects).

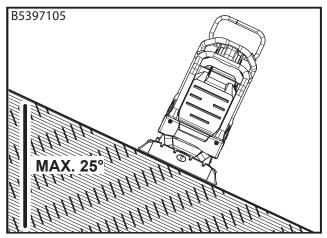


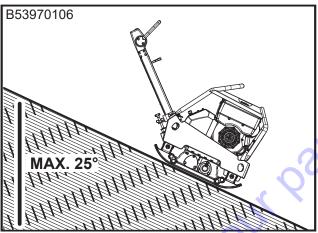
Guide the machine such that there is no risk for the machine operator to fall (in trenches, construction pits or on embankments).



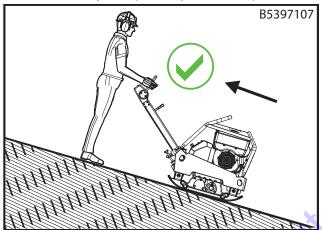
- Refrain from any mode of operation which impairs the stability of the machine.

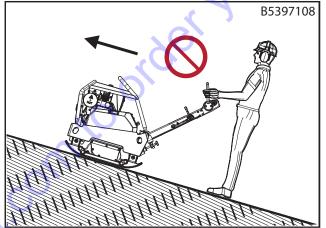
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- Move carefully on slopes, always in a direct upward direction.





- On steep slopes, move uphill in reverse to prevent the machine from tilting onto the machine operator.

2.7.6 Parking the machine

- After work, park the machine on a level surface, stop the drive, secure it against unintentional movement and unauthorized use (remove the key).
- · If available, close the fuel cock



NOTE: Never park or store a machine with an integrated carriage on the carriage. The carriage is only designed for the transport of the device. There is a risk of machine damage.

2.7.7 Refueling

- Wear respiratory protection and protective gloves during the refueling process. Fuels are harmful to health.
- To refuel the machine, you must open the engine hood. When the engine hood is open and the engine is running at the same time, there are hot surfaces and other hazardous areas inside the machine that can be reached. There is a risk of injury. Therefore, switch off the machine before you open the engine hood.
- Naked flames and smoking are prohibited during the refueling process. A naked flame can ignite the fuel-air mixture.
 There is a fire hazard!
- Use a funnel to fill the fuel into the tank. Do not spill any fuel. Spilled fuel must be recovered immediately. It must not seep into the soil.
- After refueling, check the seat of the tank cap. It must be tight and sit firmly on the tank. A leaking fuel tank can be the cause of explosions. It must therefore be replaced immediately.

2.8 Maintenance and repair work

Properly performed maintenance, inspection and adjustment activities are essential components in the safety concept of the machine. If this work is not done properly, there is a great risk of injury from non-functioning safety devices. Consequently, observe the following points:

- Observing the related deadlines, perform the maintenance, inspection and adjustment activities specified in the operating instructions, including the information on the replacement of parts.
- Only qualified and authorized persons are allowed to carry out maintenance work.
- Spare parts must comply with the technical requirements specified by the manufacturer. Consequently, use only genuine spare parts.
- To replace larger assemblies and individual parts, use only suitable and technically faultless hoisting gear and load handling equipment of sufficient load-bearing capacity. Carefully attach and secure the parts at the hoisting gear! Dropping parts can cause serious injuries.
- Reinstall and check all safety devices properly after maintenance and repair work has been completed.
- Remove any damage immediately.

Maintenance to electrical equipment

The machine's electrical equipment must be checked regularly. Problems such as loose connections, chafe marks or burnt cables must be eliminated immediately.

Maintenance of hydraulic lines

- Only persons with special knowledge and experience in hydraulics are allowed to work on hydraulic equipment!
- Prior to working on hydraulic lines, ensure that they are pressure-less. Escaping pressurized hydraulic oil can cause serious injuries!
- Hydraulic oil must be drained at operating temperature there is a risk of scalding! Wear protective gloves.



NOTE: Never start the engine when the hydraulic oil is drained. There is a risk of machine damage!

- Do not readjust the pressure relief valve.
- All of the hoses and screw connections must be checked regularly for leaks and any externally visible signs of damage!
- Once all work has been finished, check (with the system still depressurized) all connections and screw fittings for leaks.
- Replace hydraulic hose lines that show external damage.
 Replace hydraulic hoses generally at appropriate intervals (depending on the time they have been used), even if no safety-relevant defects are apparent.

Battery maintenance

- Secure removed batteries against tipping over, short circuiting, slipping or damage during transport. Failure to do so can cause short circuits, escape of battery acid and fire.
- No smoking or open flames when working on the battery.
 They pose a fire and explosion hazard!
- Dispose of used batteries according to applicable regulations.
- Never place tools on the battery. Tools can bridge contacts and cause short circuits. This may cause injury.

Handling acid batteries:

- Wear safety gloves. Battery acid is caustic. Do not get acid on your hands or your clothing. Rinse with clear water and consult a doctor if you are injured by acid!
- Filled batteries must be transported in an upright position to prevent acid leaks.
- During the charging process, highly explosive oxyhydrogen gas can form and collect in the battery. Beyond a critical amount, there is danger of explosion. When recharging the battery, remove the sealing plugs, so that the gas can escape and dissipate.

2.9 Machine disposal

The user is obliged to abide by the national laws and regulations covering waste and environmental protection when disposing of the machine at the end of its service life. In these cases we recommend that you always:

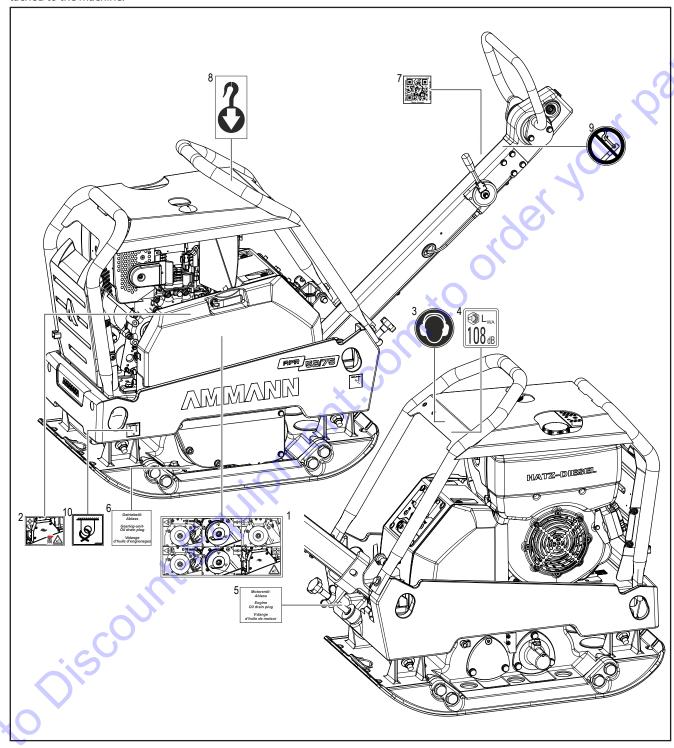
- consult specialized companies that have been authorized for these activities.
- contact the machine's manufacturer or the accredited contractual service organizations authorized by them.

The manufacturer accepts no liability for any harm caused to the health of users or for any environmental damage caused by failure to comply with the instructions above.

2.9.1 Safety devices

Labeling on the machine

The following information, safety and warning signs are attached to the machine.



Item	Article no.	Qty.	Designation	Item	Article no.	Qty.	Designation
1	2-00202239	1	V-belt tension film	6	2-00202071	1	Gear oil drain film
2	2-00202242	1	V-belt protection film	7	2-00209001	1	QR code label
3	2-00204129	1	Wear hearing protection film	8	2-00202260	1	Central point suspension film
4	2-00202602	1	108 dB sign	9	2-00202530	1	Foil prohibition crane hook
5	2-00202060	1	Engine oil drain film	10	2-00202011	4	<bracing point=""> sign</bracing>

3. Machine specification

Go to Discount. Equipment. com to order your parte

3.1 Machine description

The machines of the APR series are reversible vibration plates that use the 2-shaft vibrating system. The engine drives the exciter on the base plate via centrifugal clutch and V-belt.

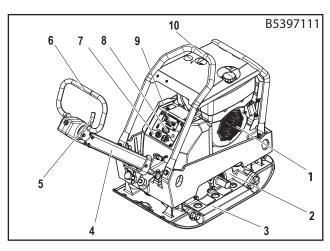
Using the integrated unbalance elements, the exciter generates the vibrations required for compaction.

The machine is guided at the draw-bar handle. The machine is operated via the control elements of the draw-bar

The APR series is suitable for all compaction work in civil engineering and road construction.

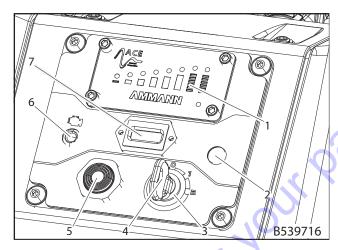
Compacting is possible with all soil materials, such as sand, gravel, light cohesive soils, slag, crushed stone and paving stones.

3.1.1 Machine overview



- 1 Diesel engine
- 2 Base plate with exciter
- 3 Mounting bracket 1)
- 4 Draw-bar
- 5 Speed lever
- 6 Draw-bar handle / Control lever
- 7 Start console
- 8 Operating hours meter¹⁾
- 9 ACE-display¹⁾
- 10 Central point suspension

3.1.2 Start console overview



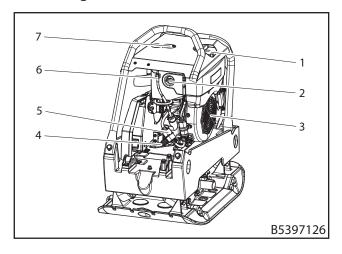
- 1 ACE-system
- 2 Closure plug
- 3 Start switch
- 4 Start key
- 5 Signal transmitter
- 6 MIL-Light (Engine indicator light)
- 7 Operating hours meter

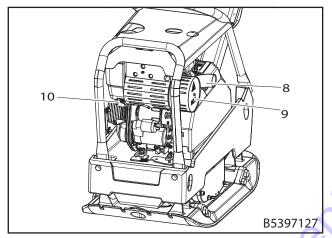
Start switch (3)

- **O** Off
- Operation
- II Start

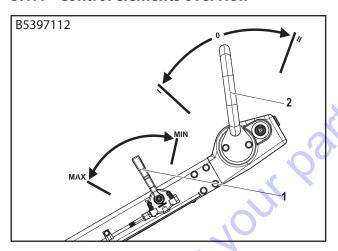
¹⁾ Special accessories.

3.1.3 Engine overview





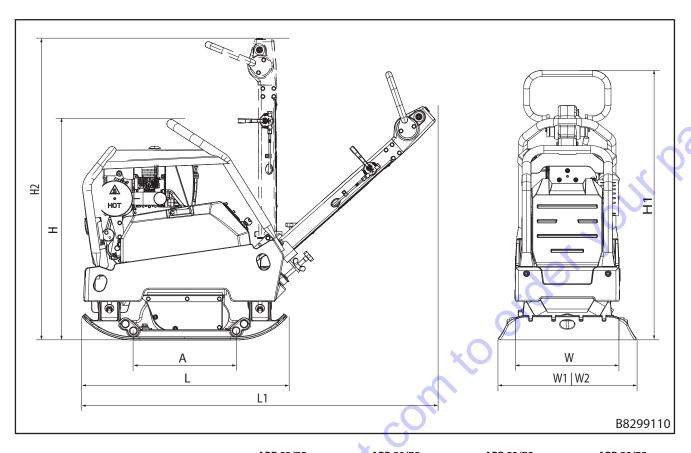
3.1.4 Control elements overview



- 1. Control lever
- 2. Speed control lever

- 1 Fuel filler neck
- 2 Air filter
- 3 Cooling air inlet
- 4 Oil drain
- 5 Fuel filter +cooling air outlet
- 6 Oil dipstick
- 7 Oil filler neck
- 8 Combustion air exhaust opening
- 9 Diesel particulate filter DPF
- 10 Water drain (fuel tank)

3.2 Technical data



	APR 52/75 HATZ 1B50E	APR 58/75 HATZ 1B50E	APR 52/75 HATZ 1B50E DPF	APR 58/75 HATZ 1B50E DPF	
1. Dimensions	TIAIZ IBSUL	TIATE TOSSE	TIAIZ TOSUL DEF	HAIZ IBSOL DEF	
W		450 mm	n 17.7 in		
W1			n 23.6 in		
W2	:(0):	750 mm	n 29.5 in		
L		898 mm	1 35.4 in		
L1	1670 mm 65.7 in	1650 mm 64.96 in	1670 mm 65.7 in	1650 mm	
A		450 mm	1 17.7 in		
Н	953 mm 37.5 in	973 mm 38.3 in	953 mm 37.5 in	973 mm 38.3 in	
H1	1000 mm 39.4 in				
H2	1270 mm 50.0 in	1305 mm 51.4 in	1270 mm 50.0 in	1305 mm 51.4 in	
2. Weights					
Operating weight	404 kg 891 lb	453 kg 998 lb	408 kg 900 lb	457 kg 1007 lb	
Mounting brackets 75 mm 2.95 in	+ 19.0 kg 42 lb				
Mounting brackets 150 mm 5.9 in		+ 39.0 k	kg 86 lb		

	HATZ 1B50E	APR 58/75 HATZ 1B50E	APR 52/75 HATZ 1B50E DPF	APR 58/75 HATZ 1B50E DP	
3. Drive					
Engine type	HATZ	1B50E	HATZ 18	350E DPF	
Type of construction		1-cylinder 4-str	oke diesel engine		
Emissions guideline					
Output					
at (Engine speed)		300	0 rpm		
Cool system		Air	cooling		
Fuel tank capacity		5 ℓ 1.32 US ϵ	gal 1.1 imp gal		
Fuel consumption		approx. 1.6 ℓ/h 0.4	2 gph 0.35 imp gal/h		
Max. inclination			25 °		
Max. climbing ability		3	0 %	10	
Drive type	Via centrifugal clutch and V-belt.				
Forward/reverse control			draulic		
Operating temperature range		-15°C to 40°	C 5°F to 104°F		
4. Speeds					
Working speed		0 – 3	0 m/min		
5. Vibration					
Max. Vibration force	52 kN	58 kN	52 kN	58 kN	
Max. Vibration frequency		6	5 Hz		
6. Special accessories					
Mounting bracket 75 mm 2.95 in	•		•	•	
Mounting bracket 150 mm 5.9 in	•		•	•	
Wear protection plates	•		•	•	
Operating hours meter	• (•	•	•	
ACE-system	• 0	•	•	•	
ServiceLink	• •	•	•	•	
	•=	Special accessories I	■ = Series — = Not avai	lable	
ServiceLink					

APR 52/75 APR 58/75 **APR 52/75** APR 58/75 HATZ 1B50E HATZ 1B50E HATZ 1B50E DPF HATZ 1B50E DPF

7. Noise and vibration specifications

The following noise and vibration data in accordance with the EC Machinery Directive in the version (2006/42/EC) were determined taking into account the harmonized standards and directives listed below. In practical operation, the values can deviate from these values, depending on the prevailing conditions.

9.1 Noise specification²⁾

The noise specification required in accordance with Annex 1, section 1.7.4.u of the EC Machinery Directive is specified as follows for

Sound pressure level at the place of work $L_{_{PA}}$	95 dB	96 dB	95 dB	96 dB
Measured sound power level $L_{_{WA,m}}$	106 dB	107 dB	105 dB	106 dB
Guaranteed sound power level L _{WA,q}	108 dB	108 dB	108 dB	108 dB

The noise values were determined taking the following guidelines and standards into account: Directive 2000/14/EC | EN ISO 3744 | EN 500-4

9.2 Vibration specification

The noise specification required in accordance with Annex 1, section 1.7.4.u of the EC Machinery Directive is specified as follows for

Total vibration value of the acceleration $a_{h\nu}$	2,8 m/s ²	3,8 m/s ²	2,8 m/s ²	3,8 m/s ²
Uncertainty K	1.0 m/s ²	1,0 m/s ²	1,0 m/s ²	1,0 m/s ²

The acceleration value was determined taking the following guidelines and standards into account: EN 500 | DIN EN ISO 5349



30 to Discountification of the second ²⁾ Since the admissible rating sound level of 85 dB (A) can be exceeded with this machine, sound protection devices must be worn by the operator.

4. Machine operation



4.1 Control elements

IMPORTANT

Shift lever block.



If the control lever is switched too fast several times, it will lock into rear drive. In this case:

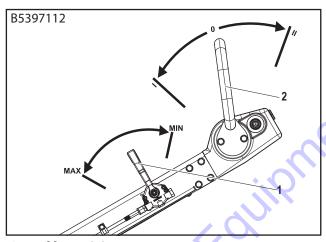
- Let the lever in forward drive go to the maximum; in a few seconds the block releases.
- ✓ The control lever can be switched again.

IMPORTANT



When switching at a standstill, the lever will lock. The block lifts immediately after the engine is started back up.

- a) Switch the control lever only when the engine is running.
- b) Start the engine, the block releases.
- ✓ The control lever can be switched again.



Speed lever (1)

MIN Idle

MAX Full throttle

The engine RPM is continuously adjusted with the speed lever. At the lowest engine RPM, power transfer from the engine to the exciter is interrupted, and the engine idles. The centrifugal clutch switches on after about ¼ of the adjustment path.

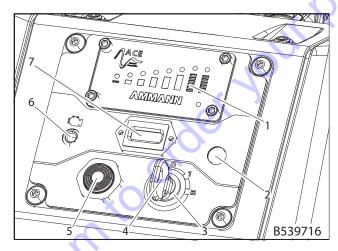
Control lever (2)

The shift lever is for adjusting the imbalances in the exciter and thus continuous regulation of the speed and the

- I Forward driving direction
- 0 Point vibration
- II Rearward driving direction

Only at maximum forward drive (1) does the shift lever automatically stay in position. In all other positions, the shift lever moves to maximum forward drive after it is let up on.

4.1.1 Start console overview



- 1 ACE-system
- 2 Closure plug
- 3 Start switch
- 4 Start key
- 5 Signal transmitter
- 6 MIL-lamp (Engine indicator light)
- 7 Operating hours meter

Start switch (3)

- **0** Off
- I Operation
- II Start

4.2 Before commissioning

A DANGER

Risk of death, injury or damage to property.



Failure to follow this manual and all the safety instructions it contains can result in death, injury or property damage.

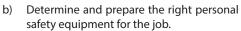
- a) Carefully read and follow this manual, especially the safety instructions.
- Read and observe the engine operating manual and its instructions on safety, operation and maintenance.

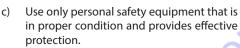
MARNING



Failure to use personal safety equipment (PSE) or using unsuitable equipment, may harm heath or cause injury.

- a) Personal safety equipment includes:
 - Ear protection
 - Safety shoes
 - Work gloves
 - Breathing protection





d) Adjust the personal safety equipment to the person, such as to body size.

To commission, do as follows:

- 1. Place the machine on a level floor.
- 2. Inspect
 - Engine oil level
 - Hydraulic oil level
 - Fuel supply
 - Screw joints for firm seating
 - Condition of engine and machine (visual inspection)
- 3. Top up low lubricants according to the lubricant chart.
- 4. Adjust and lock the draw-bar.
- Once commissioning is finished, the engine can be started.

4.3 Adjust/lock draw-bar

4.3.1 Lock the drawbar

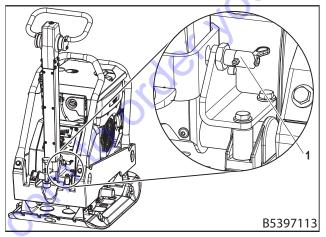
IMPORTANT

Material damage hazard.



If the draw-bar is locked during normal operation, the lock's parts can be damaged.

- a) Do not lock the draw-bar during normal operation.
- b) The draw-bar lock is used only to make the machine easier to transport.
- The draw-bar can be fixed in a vertical position (1).



 The locked draw-bar makes it easier to handle the machine when loading.

4.3.2 Set the working height

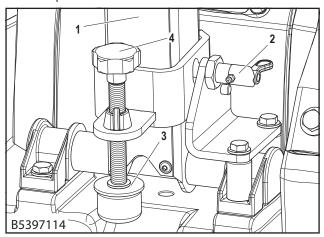
A CAUTION

Injury hazard!

When setting the draw-bar height, a freely moving draw-bar can tilt, hit and injure bystanders.

Lock the draw-bar before height adjustment.

The adjustment screw (1) can be used to optimize the working height. This allows you to avoid injury and tension through incorrect postures.



To set the optimum working height, do as follows:

- Bring the draw-bar (1) into vertical position and lock by turning the deadbolt (2).
- ► The deadbolt (2) audibly snaps in.
- 2. Loosen the wing nut (3).
- ► The adjustment screw (4) can be freely rotated.
- Turning clockwise presses the draw-bar toward the engine. This raises the working height.
- ► Turning counterclockwise moves the draw-bar away from the engine. This decreases the working height.
- 3. Set the adjustment screw (4) to get the optimal working height.
- 4. Lock the position of the adjustment screw (4) by tightening the wing nut (3).
- 5. Hold on to the draw-bar (1). Unlock the deadbolt (2).
- Slowly lower the draw-bar until the set working height is reached.
- √ The working height is set.

4.4 Engine operation

DANGER

Death hazard from breathing exhaust.



In closed or poorly ventilated spaces, poisonous engine exhaust gases can lead to unconsciousness and even death.



- In a poorly ventilated environment (e.g. construction pits) wear breathing protection.
- b) Never operate the device in closed or poorly ventilated spaces.
- c) Do not inhale exhaust.

! WARNING

Death/injury hazard from operation in an explosion-prone atmosphere!



Starting and operating the machine in explosion- and fire-prone areas can cause severe injury or even death.

a) Never start or operate the machine in explosion- or fire-prone areas.

MARNING

Injury hazard from damage and defects on the machine.



Damage and defects on the machine, especially the safety equipment, are hazard sources. Damaged machines can injure the machine operator or bystanders.

- a) Before every startup, visually inspect for damage.
- b) If damage is located and identified, do not operate the machine.
- c) Replace defective components.

MARNING

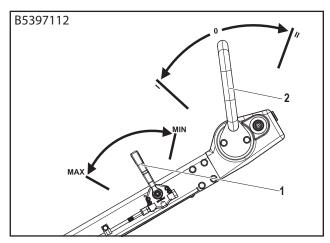
Starter sprays can cause injury or engine damage.

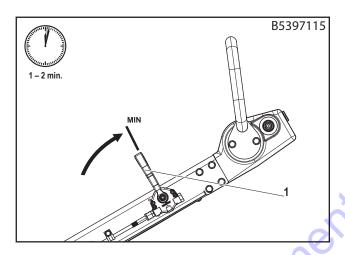


Use of starter sprays can cause uncontrolled combustion in the engine. Uncontrolled combustion can injure people and damage the engine.

a) Never use starter sprays.

4.4.1 Control elements overview





- 1 Drive lever
- 2 Speed lever
- 3 Start key
- 4 Closure plug
- 5 Signal transmitter
- 6 MIL-lamp (Engine indicator light)
- 7 Start switch

Start switch (7)

- **0** Off
- I Operation
- II Start

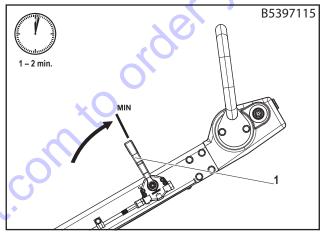
4.4.2 Starting the engine

NOTE

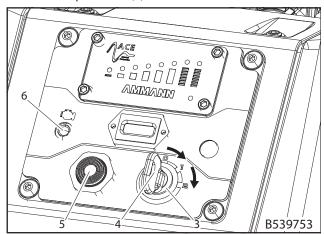
Help with starting the engine

- Start for max. 30 seconds. If the engine still doesn't run then, turn the starting key back to «0» position and eliminate the cause (see chapter "11. Help in case of malfunctions").
- b) Before engaging the starting key again, turn it back to «0» position.
- The anti-repeat lock in the ignition lick prevents the starter from engaging while the engine is running and thereby damaging the starter.

To start the engine, do as follows:



Set the speed lever (1) to «MIN».



- 2. Insert the start key (4) fully into the lock and set to position <0».
- ► The signaling transmitter (5) sounds and the MIL light (6) lights up

Machine operation

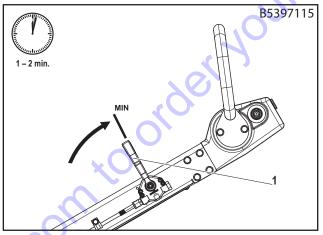
- Turn the start key to position «2» and hold there until the engine starts.
- NOTE: Start for max. 30 seconds. If the engine still doesn't run then, turn the starting key (4) back to «0» position and eliminate the cause (see chapter,,11. Help in case of malfunc-
- ✓ The engine starts. Now follow the next chapter "4.4.3 After the engine starts".

30 to Discountification of the contract of the

tions").

4.4.3 After the engine starts

- 1. Release the start key.
- ► The start key jumps to position «I» and remains in this position during operation.
- ► The signal transmitter (5) stops and the MIL light (6) must go out.
- ▶ MIL light (6) lights up in the event of a fault.
- 2. In the event of irregularities:
 - Switch off the engine immediately.
 - Determine and rectify the fault.
 - Details on troubleshooting can be found in chapter "11. Help in case of malfunctions".



- 3. Set the speed lever (1) to «MIN».
- 4. Idle the motor for 1 to 2 minutes.
- 5. In the event of a false start, reset the speed lever (1) to the starting position and repeat the starting procedure.
- ✓ Machine is ready for operation.

4.4.4 Shut off the engine

! WARNING

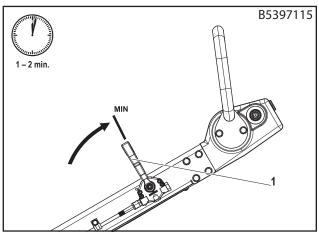
Injury hazard from unauthorized access.



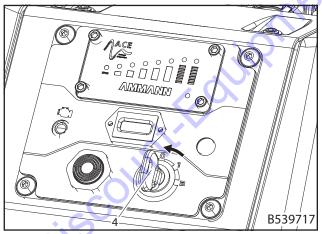
If the machine is left unsupervised with the engine running, unauthorized people can use the machine and injure themselves and others.

- a) Shut the machine off after finishing work.
- b) During operation interruptions or after finishing work, remove the starting key and protect the machine from unauthorized access.

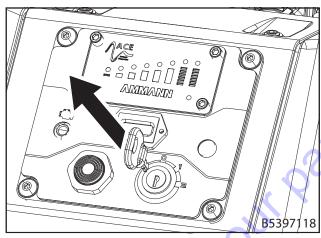
To stop the engine, do as follows:



- 1. Leave the speed lever (1) at «MIN».
- 2. Idle the motor for 1 to 2 minutes.



- 3. Set the starting key (3) to «0» position.
- ► The engine stops.



- 4. Remove the start key (3) and keep it in a safe place.
- The engine has shut off.

4.5 Operating the machine

M DANGER

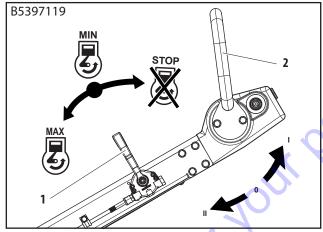
Death hazard from tilting or sliding the machine.

The machine can tip over or slide due to skidding material, unstable edges or smooth surfaces. This can cause severe injury or death.

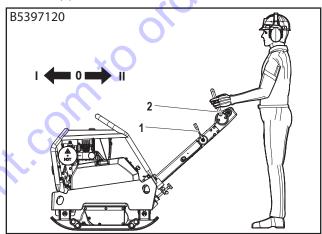
- c) Navigate slopes carefully, and always drive upward in a straight direction.
- d) Drive up steep slopes backwards to keep from tipping the machine.
- e) At the edge of ditches and ledges, and in front of obstacles, drive the machine in such a way that there is no falling or crushing hazard to the driver.
- f) When driving the machine backwards, guide the machine sideways to prevent the machine operator from being crushed.
- g) Keep adequate distance from trench edges and embankments.
- h) Refrain from any manner of working that threatens the machine's stability!
- Do not move over hard concrete, hardened bitumen surfaces, frozen ground or ground that does not have an adequate load capacity.

Use the following procedure to start work:

1. Start the engine.



- Set the speed (1) to «MAX».
- Set the direction and the speed of travel on the control lever (2).



- ► The place intended for the operator to be is behind the machine.
- 4. Guide and steer the machine by the draw-bar handle (3); the operator walks sideways next to the draw-bar.
- 5. To stop the machine, set the speed lever (1) to «MIN».
- ► The machine stops, but the engine continues running.
- 6. For short pauses, set the accelerator lever to «MIN».
- The machine idles.

IMPORTANT



Risk of engine damage.

Prolonged idling can cause engine damage.

 Shut down the engine during longer breaks.

IMPORTANT



Difficulties in starting up the exciter.

Under unfavorable conditions, it can be difficult for the exciter to start up. The engine can not reach its rated speed in such a case.

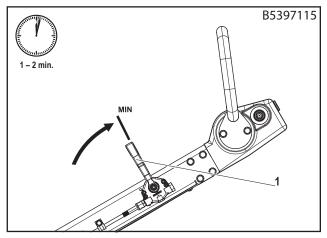
a) Actuate the control lever repeatedly.

IMPORTANT



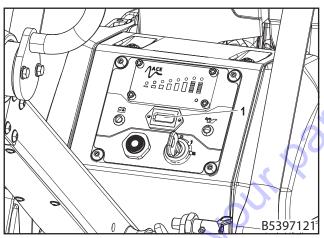
Beware of material damage.

 When compacting interlocking pavement, using wear protection plates (special accessories) is recommended to prevent damage to machine and compaction material.



- For longer pauses and after work
 - Set the starting key to «O» and leave it in that position until the engine shuts off.
- Remove the start key.

Operating hours meter¹⁾ 4.6

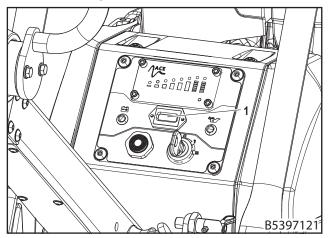


- The operating hours counter (1) can be used to call up several kinds of information:
 - Whole operating hours.
 - Engine oil and air filter change intervals are displayed:

	Engine oil and air filter change intervals				
		1. Serv Alarm	2. Serv Alarm	3. Serv Alarm	4. Serv Alarm
D	Display	CHG	CHG	Serv	CHG
		OIL	OIL	Air Filter	Air Filter
	Interval	20 hrs.	200 hrs.	50 hrs.	250 hrs.
	Count down		15 hrs. before		25 hrs. before
	Flashing time	e 2 hrs.			
1)S	Special acces	sories.			
1)5					

4.7 ACE-system

4.7.1 Description



The ACE system ¹⁾ permits area-wide compaction checks to be performed. The dynamic ground stiffness is determined for this purpose.

An integrated sensor measures the feedback of the ground to the vibrating base plate. An LED display in the field of vision of the operator continuously shows the measured values.

This control option provides several benefits for the user. For example:

- Permanent control of the compaction progress achieved, and whether the final compaction is reached.
- Imperfect areas in the compaction can be found and be re-compacted.
- Over-compaction, material loosening and destruction can be avoided.
- Superfluous transitions or tampering on already compacted ground are avoided; i.e. more efficient and considerate use of the machine.

4.7.2 Function

The ACEecon system consists of the display and an acceleration sensor on the base plate.

The integrated sensor converts the acceleration of the base plate into voltage signals. These signals are transmitted to the control system. The parameters for compaction are calculated in the control system and shown on the display.

4.7.3 Operation

The ACE system is particularly suitable for granular soils with low fines content.

Degree of compaction and compaction quality depend on the existing ground conditions. If the maximum degree of compaction is not shown in the display despite an adequate number of transitions, check the compaction suitability of the soil and, if necessary, initiate measures to improve compaction. Due to different soil stiffness values, the maximal value cannot always be obtained.

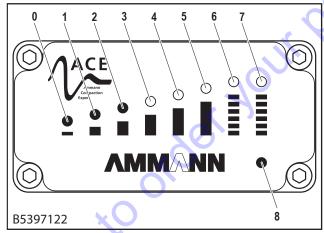
4.8 Operation

NOTE



Correct measured values can only be obtained when moving forward and backward at maximum speed.

 The individual operating states are displayed on the control panel as follows:



- The system starts automatically when the machine is switched on. First, the system initializes itself:
 - The status LED (8) blinks; the LEDs (0) (7) light up one after the other from 0 to 7 and go out again.
- The status LED (8) shines after successful initialization. The system is now ready for operation.
- The LEDs show the relative compaction value as follows.
 The number of shining LEDs symbolically reflects the increasing compaction of the soil.

			LED) 1)				
DC	0	1	2	3	4	5	6	7
0 – 19 %	•							
20 – 40 %	•	•						
41 – 60 %	•	•	•					
61 – 80 %	•	•	•	•				
81 – 100 %	•	•	•	•	•			
101 – 120 %	•	•	•	•	•	•		
121 – 140 %	•	•	•	•	•	•	•	
141 – 150 %	•	•	•	•	•	•	•	•

¹⁾ Red LED's

²⁾ DC = Degree of compaction

- The vibration frequency is too high or too low when the status LED shines steadily and the 0 LED is blinking. A measured value cannot be calculated.
- There is a malfunction in the measuring system when LED 0 shines steadily and the status LED is blinking. Contact Ammann Service in this case.

¹⁾ Special accessories.

5. Loading and transportation



Loading and transportation 5.1

DANGER

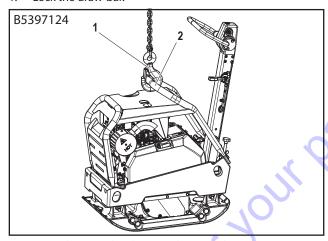
Death hazard from suspended load!

The machine has a high intrinsic weight. Improper lifting and transport can cause the machine to fall and injure people.

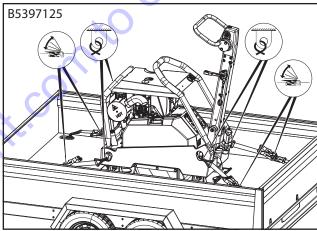
- It is forbidden to
 - walk under suspended loads,
 - stand under suspended loads!
 - ride on suspended loads.
- Make sure no one is in danger!
- Only use load-bearing capable and stable loading ramps for loading.
- Check the attachment points (shackles, lifting eyes) for damage or wear before use. Damaged parts must be changed immedi-
- Secure the machine against rolling, sliding and tipping over.
- Always use the provided lifting points when loading, lashing and lifting the machine.
- After loading, lock the draw-bar.

To transport the machine or lift it with a crane, do as follows:

Lock the draw-bar.



- Hang the crane hooks (1) in the central point suspension
- Load the machine onto the transport vehicle.
- Remove the crane hooks from the central point suspen-



Secure the machine to the transport lugs with straps and tie it down correctly.

- Attach the lashing to the eyelets in the upper section (3) at the front and rear.
- 5. At the destination, loosen the transport locks.
- Hang the crane hooks into the central point suspension.
- Lift the machine with a crane and unload it.
- Place the machine on a level floor and prepare it for operation.
- Machine transport is completed.





IMPORTANT



Keep the cargo bed and contact surfaces on the machine clean and free of ice, snow and other slippery materials.

NOTE



Keep the machine horizontal during transportation.

6. Maintenance

Go to Discount. Equipment. com to order your parte

6.1 General instructions

Careful maintenance will ensure:

- ⇒ A longer service life.
- ⇒ Greater functional safety.
- ⇒ Less downtime.
- ⇒ Lower repair costs.
- · Observe the safety regulations!
- Maintenance works should only be carried out when the engine is shut off.
- The engine and machine should be cleaned thoroughly before carrying out maintenance work.
- Park the machine on a flat surface and secure it against rolling away and slipping.
- Ensure that operating materials and replaced parts are disposed of safely and in an environmentally-friendly way.

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- Before commencing work on any electrical equipment, disconnect the battery and cover it with insulating materials.
- Do not exchange «PLUS» and «MINUS» poles on the battery.
- It is essential that short-circuits be prevented in cables carrying current.
- Before welding works on the machine put-off all connections and battery cables.
- Burned-out light-bulbs in indicator lamps should be replaced immediately.
- When cleaning the machine with a high-pressure water jet, do not spray the electrical components directly.
- After washing the components, blow-dry them with compressed air in order to prevent surface leakage current and corrosion.

6.2 Maintenance overview

Maintenance works	Maintenance intervals	8 hrs. (Daily)	20 hrs. (Weekly)	50 hrs. (Monthly)	100 hrs. (½-yearly)	250 hrs. (Yearly)	As required
Clean the machine.		•					
Check engine oil level 1).		•					
Change engine oil 1).			●3)			•	
Clean engine oil filter 1).						•	20
Check air filter 1).		•					
Clean air filter							•
Change air filter element 1).						.0	•
Change fuel filter 1).							
Drain water (fuel tank) 1).			•			$\langle \cdot \rangle$	
Check air intake openings 1)		•			Y)	
Check valve clearance 1).			●3)		10	•	
Exciter: Check oil level.				•	0,		
Exciter: Change oil 2).				•3)		•	
Replace shift piston seal.						•	
Replace shift piston bearing	g.					•	
Check hydraulic oil level.		•	₆ O				
Change hydraulic oil 2).				• 3)		•	
Check hydraulic hose lines.		5	1.		•		
Check V-belt tension.		•0					
Replace V-belt.		2			•		•
Check rubber buffer.		•					
Tension rubber buffer and r	replace.	K					•
Check screw connections for	or tightness.		●3)	•			
Clean the diesel particulate	filter (DPF) 4)						● 4)
1) Soo ongine operating manua	1 4						

¹⁾ See engine operating manual.

²⁾ Minimum once a year.

³⁾ For the first time.

⁴⁾ Every 500 hrs. (to be performed by trained technicans).

6.3 Lubrication schedule

Lubricating points 1. Engine (HATZ	Quantity Z 1B50E 1B50E DPF)	Change interval	Lubricant	Order No.
APR 52/75 APR 58/75	1.50 ℓ 1.585 US qt 1.320 imp qt	For the first time after 20 hrs.; then every 250 hrs. or annually.	Engine oil API SG-CE SAE 10W40	2-80601100
2. Exciter APR 52/75 APR 58/75	1.00 ℓ 1.057 US qts 0.880 imp qt	For the first time after 100 hrs.; then every 250 hrs. or annually.	Transmission oil JDM J20C	2-80601110
3. Hydraulics	o.ooo iiiip qt	or unitidally.		
APR 52/75 APR 58/75	0.65 ℓ 0.687 US qt 0.572 imp qt	Not required. (Change in case of repair)	Hydraulic oil HVLP 46	2-80601070
			ord	8.
			×O	
		C	3 *	
		Z,C	3 *	
		ent.co	3 *	
		went.co	3 *	
		:oment.co		
		i jipnent.c		
		diibushic		
		Colippaent		
		Coliphentic		
		Colippent		
	count	E Oliloment. C		
	SCOUNT	Colilomentic		
	SCOUNT	E QUIDA PRINTE		
	SCOUNT	E. Oliloment. C		
*OO'	SCOUNTY	E. Oliloment. C		
	SCOUNTY	E. Oliloment. C		
	SCOUMIC	E Chiloment. C		
	SCOUNTY	Coliloment.C		
	SCOUNT	Coliloment.C		
	SCOUNT	Caliloment.C		

Alternative lube oil table

	Engine oil API SG-CE SAE 10W40	Gear oil in acc. with JDM J 20 C	Special hydro-oil ISO-VG 32	Hydroil HVLP 46	ATF – oil
ARAL	Extra Turboral SAE 10W40	Fluid HGS	Vitam GF 32	Vitam HF 46	ATF 22
ВР	Vanellus C6 Global Plus SAE 10W40	Hydraulik TF-JD	Energol HLP-HM 32	Bartran HV 46	Autran MBX
CASTROL	Tection SAE 10W40	Agri Trans Plus	Hyspin SP 32	Hyspin AVH-M 46	TQ-D
ESSO	Ultra 10W40	Torque Fluid 56	Univis N 32	Univis N 46	ATF 21611 II-D
FUCHS	Titan Unic MC	Agrifarm UTTO MP	a. Renolin ZAF 520 b. Plantohyd 32 S ²⁾	Renolin B 46 HVI	Titan ATF 3000
HONDA	_	4 Stroke Oil 10W30 API/SJ	_	_	70
KLEENOIL PANOLIN	_		Panolin HLP Synth 32 ²⁾		4
LIQUI MOLY	_	SPECIAL TEC AA 10W-30	_	- 0	—
MOBIL	a. Delvac SHCb. Mobil Super M 10W40c. Mobil Super S 10W40¹⁾		Mobil DTE 24	Univis N 46	ATF 220
SHELL	Engine Oil DG 1040	Donax TD	Tellus T32	Tellus T 46	a. Donax TA b. Donax TX
TOTAL	Rubia Polytrafic 10W-40	Transmission MP	Azolla ZS 32	Equivis ZS 46	Fluide ATX

¹⁾Semi-synthetic light-duty oils

Me oils an DMA specific County of the county ²Biological multi-purpose hydraulic-oils;
The miscibility and compatibility with mineral oil based hydraulic oils and biological hydraulic-oils should be examined in the individual case.
The residual mineral oil content should be reduced acc. to VDMA specification 24 569.

7. Maintenance engine

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7.1 General information

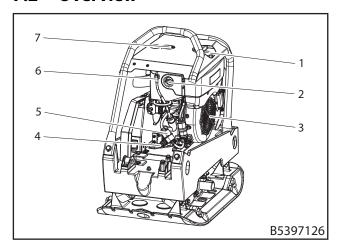
NOTE

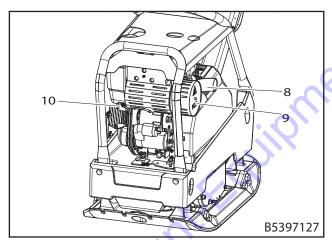


Information on documentation

This manual lists only the daily engine maintenance tasks. Follow the engine's operating manual and the warnings and intervals shown therein.

7.2 Overview





- 1 Fuel filler neck
- 2 Air filter
- 3 Cooling air inlet
- 4 Oil drain
- 5 Fuel filter +cooling air outlet
- 6 Oil dipstick
- 7 Oil filler neck
- 8 Combustion air outlet
- 9 Diesel particulate filter
- 10 Water drain (fuel tank)

7.3 Fuel system

7.3.1 Fuel

IMPORTANT

Inferior fuel may damage the engine.



Using fuel that does not meet the cited specifications can damage the engine.

- Use only diesel fuels that meet the minimum requirements.
- b) Comply with ASTM D 975-09a 1-D S15 or 2-D S15.

7.3.2 Winter fuel

If the outdoor temperature is below freezing, use winter fuel or mix in petroleum on time.

Lowest ambien	temperature	Petroleum content [%] for		
at startup		Summer fuel	Winter fuel	
0 to -10 °C	32 to 14°F	20 %	_	
-10 to -15 °C	14 to 5°F	30 %	_	
-15 to -20 °C	5 to -4°F	50 %	20 %	
-20 to -30 °C -4 to -22°F		_	50 %	

7.3.3 Fuel fill level

Machine type	Engine type	Filling	quantity
APR 52/75	HATZ 1B40E	5.0 ℓ	1.321 US gal
APR 58/75			1.100 lmp gal

7.3.4 Check the fill level, add fuel

MARNING

Fire hazard from fuel.

Leaking or spilled fuel can ignite and cause severe burns.

- a) Fill the tank only when the engine is off.
- b) Never fill the tank near open flames or combustible sparks.
- c) No smoking.
- d) Do not fill the tank in enclosed spaces.
- e) Do not inhale fuel fumes.

ENVIRONMENT

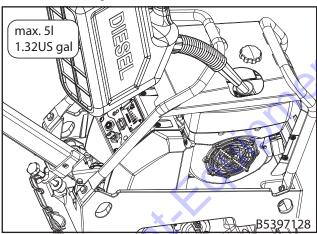
a)

Pollution hazard from spilled fuel.

- a) Do not overfill the fuel tank and do not spill any fuel.
- Collect escaping fuel and dispose of it according to local environmental regulations.

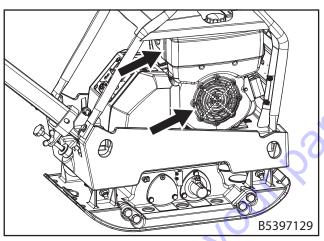
To check the fuel level or to add fuel, do as follows:

- 1. Place the machine on an even, solid surface.
- 2. Shut off the engine.



- 3. Clean the area around the fuel filler neck.
- 4. Open the tank cap (1).
- 5. Visually check the fuel level.
- ► Refill with fuel, if necessary.
- Tightly close the fuel cap.
- ✓ Fuel level checked / fuel added.

7.3.5 Check air intake area



- Check the air intake openings (1) for coarse dirt and objects, such as leaves, collected dust, etc.
- ► Clean if necessary.

7.4 Engine oil level

7.4.1 Check, refill

CAUTION Injury hazard!



Prolonged contact with engine oil can cause skin irritation.



- a) Wear safety gloves.
- b) If there is skin contact, clean the affected areas thoroughly with soap and water.

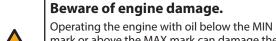
ENVIRONMENT



Environmental hazard from spilled operating materials.

- a) Collect the used oil and dispose of it in an environmentally-friendly manner.
- b) Do not allow oil to seep into the ground or the sewage system.
- c) Replace defective seals immediately.

IMPORTANT





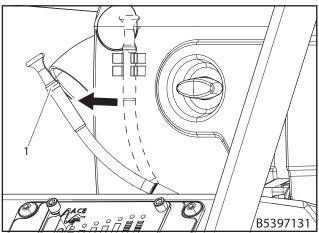
mark or above the MAX mark can damage the engine.

 a) When the oil is checked, the engine must stand horizontal and have been shut off for several minutes.

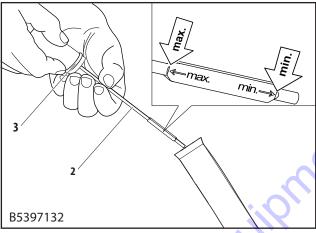
Maintenance engine

To check the engine oil level or to add engine oil, do as follows:

- Place the machine on an even, solid surface; the engine must be horizontal.
- 2. Shut off the engine.
- For a hot engine, wait a few minutes for the oil to flow back into the oil pan.



3. Release the dipstick (1) from the clamp.



- 4. Clean the area around the dipstick (1).
- 5. Pull out the dipstick (1) and wipe it with a clean, lint-free cloth.
- Check the O-ring (2) at the dipstick. Replace a damaged O-ring.
- Insert the dipstick until it hits the stop and pull it out again.
- 8. Check the oil level.
- 9. If necessary, top up engine oil through the oil filler neck.
- ► Fill in engine oil gradually to avoid exceeding the «Max» mark. Wait for 1 ... 2 minutes. Check the oil level again and top up if necessary.
- ✓ Engine oil level checked / engine oil topped up.

7.4.2 Check water separator

ENVIRONMENT

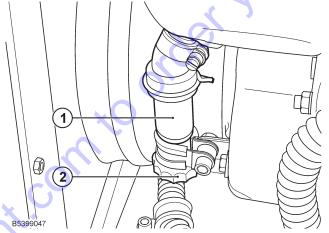
Risk of environmental pollution from spilled fuel.



There is also a small amount of fuel running out when you drain the water from the water separator.

- a) Do not overfill the fuel tank and do not spill fuel.
- b) Collect the drained water-fuel mixture and dispose of it in accordance with the local environmental regulations.

During the daily oil check, also check the water separator for water content.



To check the fuel tank for water deposits, do as follows:

- Check the sight glass (1) for water content.
- 2. Collected water can be detected by a clear separation line versus the diesel fuel above it.
- 3. Place a suitable container under the drain screw (2).
- If access is not adequate, an extension hose can be attached to the drain screw.
- 4. Open the drain screw and drain the water into the container
- 5. As soon as fuel comes out, close the drain screw.
- Dispose of water-fuel mixture according to local environmental regulations.
- 7. Drain the water into a suitable container.
- ✓ The fuel tank has been checked for water deposits.

7.5 Check and clean the air filter

! CAUTION



Risk of injury!

There is a risk of foreign bodies getting into your eyes when you work with compressed air.



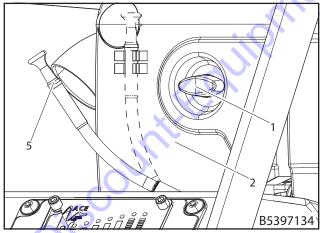
- a) Wear protective goggles.
- Never point the compressed air jet at a person or at yourself.

IMPORTANT

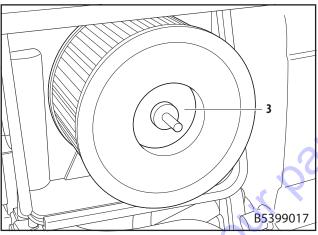
Risk of engine damage from missing or malfunctioning air filter.

- a) Filtereinsatz auswechseln
 - if there is the slightest damage in the areas of sealing surface, filter paper and filter cartridge,
 - if there is soot-containing precipitation.
 - if there is damp and oily contamination,
 - if the engine power decreases or the color of the exhaust gas changes,
 - at least once a year.
- Never operate the engine without air filter insert.
- c) The pressure must not exceed 5 bars (500 kPa).

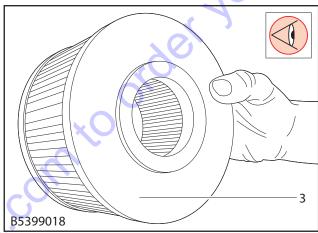
Use the following procedure to check or to clean the air filter:



- 1. Release the dipstick (5) from the clamp.
- 2. Loosen the wing screw (1).
- 3. Remove the filter cover (2).

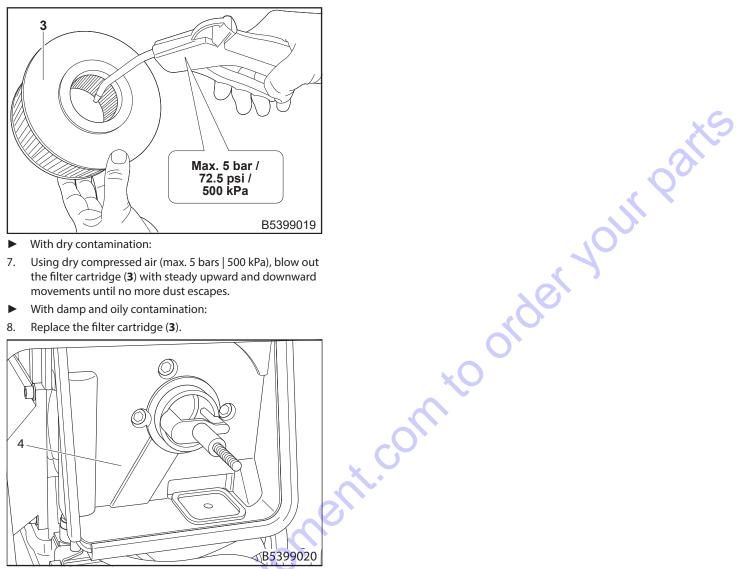


4. Carefully pull out the filter cartridge (3).

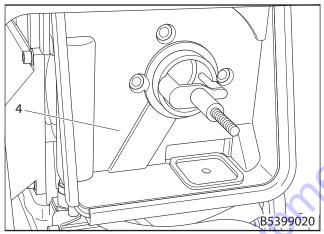


- Hold the filter cartridge (3) at an angle against the light or let a lamp shine through it to check for cracks or other damage.
- Replace the filter cartridge if there are any cracks or other damage.
- 6. Replace or clean the filter cartridge (3) depending on the degree of soiling.

Maintenance engine



- With dry contamination:
- Using dry compressed air (max. 5 bars | 500 kPa), blow out the filter cartridge (3) with steady upward and downward movements until no more dust escapes.
- With damp and oily contamination:
- Replace the filter cartridge (3).



- Clean filter cover (2) and filter housing (4).
- 10. Carefully insert the filter cartridge.
- 11. Mount the filter cover.
- ed.

8. Maintenance machine

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8.1 Cleaning

MARNING



Fire and explosion hazard from combustible materials.

Combustible materials can cause severe burns.



- a) Never use petrol or cleaning solutions with a low combustion point for cleaning.
- b) Do not use flammable or aggressive materials for cleaning.

ENVIRONMENT



Environmental hazard from spilled cleaning agent.

- Clean the machine only at a workplace with a collection system for cleaning agent to prevent pollution to the earth and groundwater.
- b) NEVER use prohibited cleaning agents.

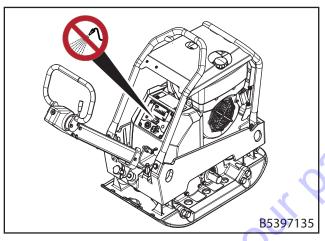
IMPORTANT

Water entering the machine can cause property damage.

 Before cleaning the machine with the high-pressure cleaner, protect the engine from water and moisture.



- b) Spray off the machine with the high-pressure cleaner only at the bottom area.
 - Do not spray the engine or the engine control device.
 - Do not spray electrical components.
 - Do not point the water jet directly into the air filter.
 - Leave the battery cover on the battery.



o clean the machine, do as follows:

- Spray the surface of the machine with a high-pressure cleaner.
- ► Clean the machine every day.
- 2. After cleaning, check the cables, wires and screw joints for leaks, loose connections, chafe marks and other damage and for contamination of the plug contacts.
- ► Eliminate any problems immediately.
- ✓ The machine has been cleaned.

8.2 Screw joints

a) Replace self-lock

i

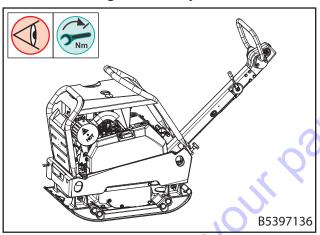
a) Replace self-locking nuts after every dismantling.

Tightening torque

, a	8	8.8 10.9		10.9		2.9
Ø	Nm	ft lb	Nm	ft lb	Nm	ft lb
M 4	3	2	4,4	3	5	4
M 5	6	4	8,7	6	10	7
M 6	10	7	15	11	18	13
M 8	25	18	36	26	43	31
M 10	49	36	72	53	84	61
M 12	85	62	125	92	145	106
M 14	135	99	200	147	235	173
M 16	210	154	310	228	365	269
M 18	300	221	430	317	500	368
M 20	425	313	610	449	710	523
M 22	580	427	830	612	970	715
M 24	730	538	1050	774	1220	899
M 27	1050	774	1480	1092	1774	1308
M 30	1420	1047	2010	1482	2400	1770
TAB01001.cdr	•		•			

- Tightening classes for screws with untreated, non-lubricated surfaces.
- The values indicate 90% utilization of the yield strength; at a friction coefficient of $\mu_{\text{total}} = 0.14$.
- Compliance with the tightening torques is to be checked using torque wrenches.
- The specified values will not apply if an MoS2 lubricant is used.

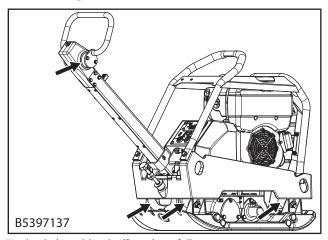
8.2.1 Checking the screw joints



With vibrating devices it is always important to check the screw connections for tightness at regular intervals.

- 1. For that, do as follows:
- 2. Check all screw joints for firm seating.
- 3. Retighten the screw joints, if necessary.
- ► Note the torques.
- ✓ The screw joints have been checked.

8.3 Inspect rubber buffer



To check the rubber buffers, do as follows:

- 1. Check the rubber buffers as shown for:
 - Cracks and ruptures
 - Correct seating.
- ► Replace damaged rubber buffers immediately.
- ✓ The rubber buffers have been checked.

8.4 Exciter

CAUTION

Burn hazard from hot oil.



Working on the exciter may pose a burn hazard from hot oil.

- a) Wear safety gloves.
- b) Slowly, carefully open the oil drainage screw to release pressure.

ENVIRONMENT



Environmental hazard from spilled operating materials.

- Collect the used oil and dispose of it in an environmentally-friendly manner.
- b) Do not allow oil to seep into the ground or the sewage system.

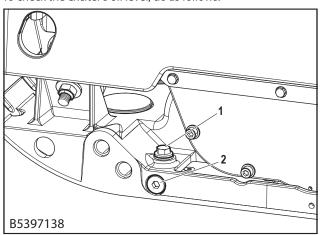
NOTE



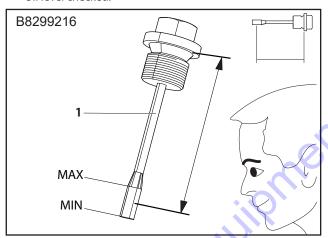
- a) Change the transmission oil when it is
- When the dipstick is screwed in, the optimal oil level is between the «MIN» and «MAX» lines.

8.4.1 Oil level / Oil change

To check the exciter's oil level, do as follows:



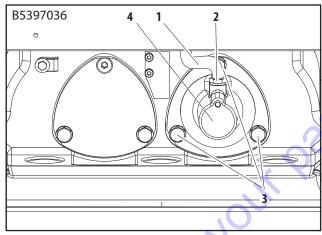
- 1. Screw out the oil filling screw or dipstick (1).
- 2. Check the oil level.
- 3. Top up the oil, if necessary.
- 4. Screw in the oil filling screw or dipstick (1) with a new seal.
- ✓ Oil level checked.



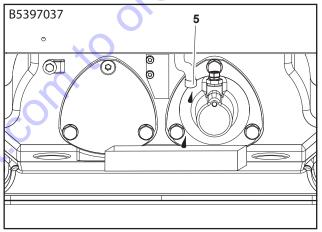
To change the exciter's oil, do as follows:

- 1. Screw out the oil filling screw or dipstick (1) and oil drain plug (2).
- Drain the used oil into a container and dispose of it according to local regulations.
- 2. Screw the oil drain plug (2) back in.
- 3. Pour new oil into the oil fill hole. Oil quantity and quality (see chapter "6.3 Lubrication schedule" auf Seite 36).
- 4. Screw in the oil filling screw or dipstick (1).
- 5. Screw out the oil filling screw or dipstick (1).
- 6. Check the oil level again, and add oil if necessary.
- 7. Screw in the oil filling screw or dipstick (1) with a new seal.
- Oil changed in exciter.

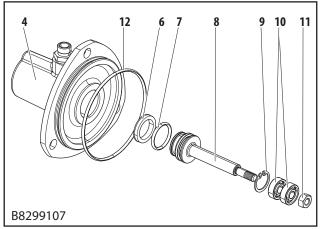
8.4.2 Shift piston overview



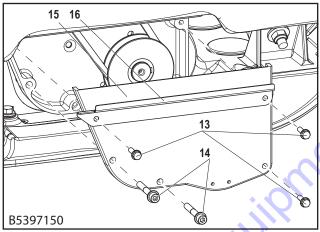
- 1. Hydraulic oil line
- 2. Oil connection
- 3. Screws
- 4. Shift cover



5. Caps



- 6. Seal
- 7. O-ring
- 8. Shift piston
- 9. Safety ring
- 10. Bearing
- 11. Nut
- 12. Seal



- 13. Screws with washers
- 14. Screws with washers
- 15. V-belt guard (a)
- 30 to Discount

8.4.3 Change the shift piston seal

! CAUTION

Injury hazard from rotating parts.

Crushing injuries can occur with an open-running belt drive.



- Perform inspection and maintenance only with the engine off.
- Do not operate the machine without the V-belt guard.

ENVIRONMENT

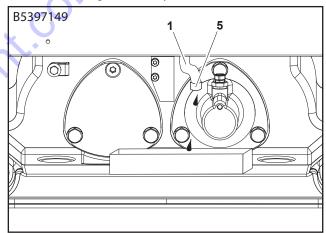
Environmental hazard from operating materials.



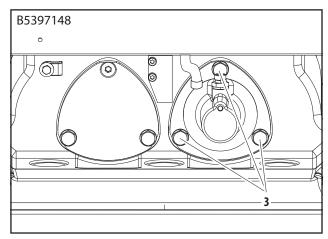
- Collect the used oil and dispose of it in an environmentally-friendly manner.
- Do not allow oil to seep into the ground or the sewage system.

To change the shift piston seal, do as follows:

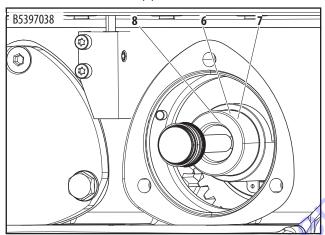
- 1. Screw the hydraulic oil line (1) from the oil connection (2) from the shift cover (4).
- 2. Fasten the plug (5) on the hydraulic oil line (1).



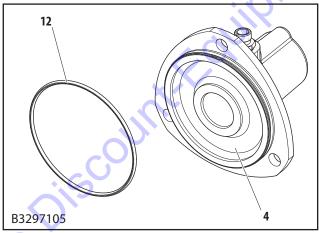
Put an oil collection container under the shift piston.



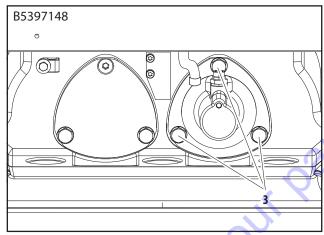
- 4. Loosen the screw (3).
- 5. Remove the screws (3).
- 6. Remove the shift cover (4).



- 7. Remove the seal (6) and O-ring (7).
- 8. Pull on the new O-ring (7) and new seal (6).



9. Replace the seal (12) from the shift cover (4)



- 10. Put on the shift cover (4).
- 11. Apply adhesive to the screws (3).
- 12. Install the screws (3) with washers.
- 13. Firmly tighten the screws (3).
- 14. Remove the plug (5) from the hydraulic oil line (1).
- 15. Screw the hydraulic oil line (1) onto the oil connection (2) on the shift cover (4).
- \checkmark The shift piston seal has been changed.

8.4.4 Replace the shift piston bearing

CAUTION

Injury hazard from rotating parts.

Crushing injuries can occur with an open-running belt drive.



- a) Perform inspection and maintenance only with the engine off.
- b) Do not operate the machine without the V-belt guard.

ENVIRONMENT

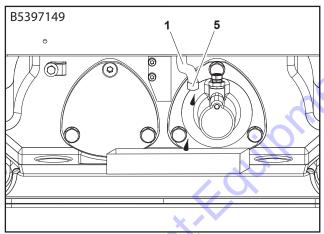


Environmental hazard from operating materials.

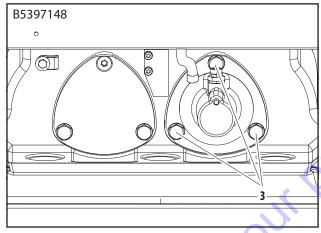
- a) Collect the used oil and dispose of it in an environmentally-friendly manner.
- b) Do not allow oil to seep into the ground or the sewage system.

To change the shift piston bearing, do as follows:

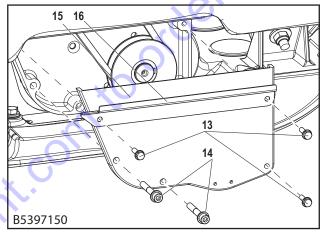
- 1. Screw the hydraulic oil line (1) from the oil connection (2) from the shift cover (4).
- 2. Fasten the plug (5) on the hydraulic oil line (1).



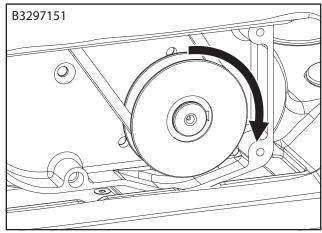
3. Put an oil collection container under the shift piston.



- 4. Loosen the screw (3).
- 5. Remove the screws (3).
- 6. Remove the shift cover (4).



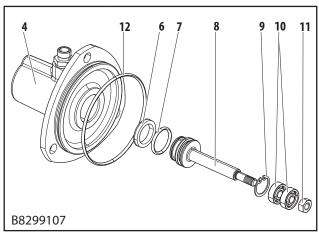
- 7. Unscrew the screws (13, 14) with washers.
- 8. Remove the V-belt guard (15, 16).



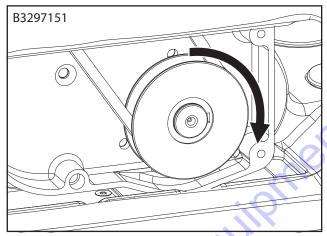
Turn the V-belt pulley clockwise until the piston is slid all the way forward.

30 to Discc

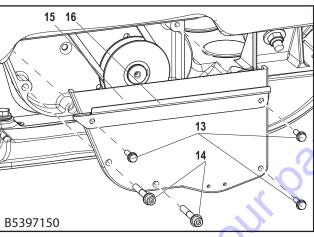
10. Remove the safety ring (9).



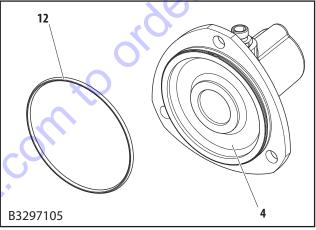
- 11. Pull out the shift piston (8).
- 12. Screw off the nut (11).
- 13. Pull off the bearing (10).
- 14. Pull on the new bearing (10).
- 15. Firmly screw on the nut (11).
- 16. Slide in the shift piston (8).



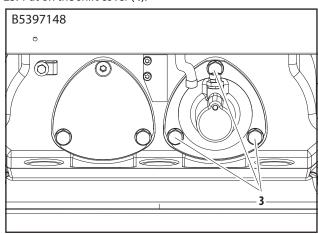
- 17. Turn the V-belt pulley (2) clockwise until the shift piston (8) is slid all the way forward.
- 18. Install the safety ring (9).



- 19. Fit the V-belt guard (15, 16).
- 20. Screw in the screws (13, 14) with washers.
- 21. Tighten the screws (13, 14).



- 22. Replace the seal (12) from the shift cover (4).
- 23. Put on the shift cover (4).



- 24. Install the screws (3) with washers.
- 25. Firmly tighten the screws (3).
- 26. Remove the plug (5) from the hydraulic oil line (1).
- 27. Screw the hydraulic oil line (1) onto the oil connection (2) on the shift cover (4).
- ✓ The shift piston bearing has been changed.

8.5 V-belt

MARNING

Injury hazard from rotating parts.

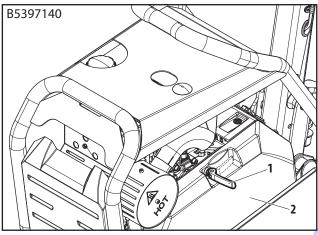
Crushing injuries can occur with an open-running belt drive.

- a) Perform inspection and maintenance only with the engine off.
- b) Do not operate the machine without the V-belt guard.

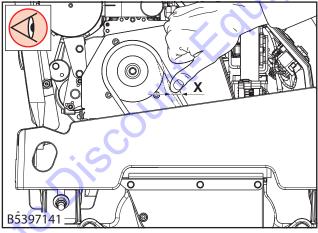
8.5.1 Inspect

To check the V-belt, do as follows:

1. Shut off the engine.



- 2. Open the tension lock (1) and unscrew.
- 3. Remove the upper belt guard (2).
- 4. Check the V-belt condition.
- ► Replace defective or damaged V-belts.

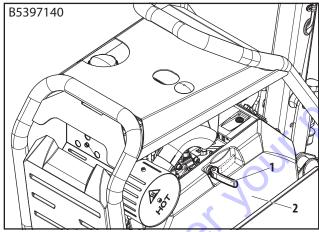


- 5. Check the V-belt tension, and tighten if necessary X = approx. 10 mm | 0,3937 in.
 - V-belt checked.

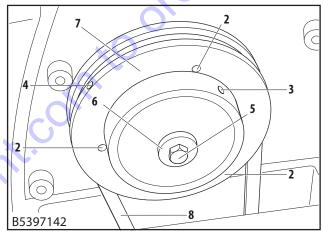
8.5.2 Tighten

To tension the V-belt, do as follows:

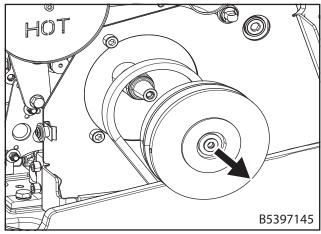
1. Shut off the engine.



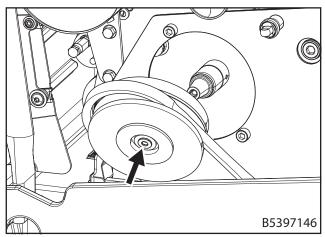
- 2. Open the tension lock (1) and unscrew.
- 3. Remove the upper belt guard (2).



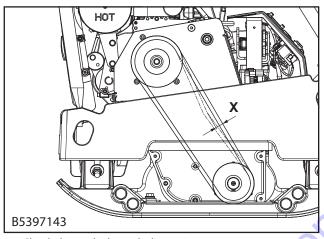
- 4. Loosen the threaded pins (2), but do not remove them.
- 5. Remove screw (5) with washer (6).



- 6. Remove the clutch from the shaft.
- 7. Insert the auxiliary tool (ø 6 mm) into holes (3) and (4).
- 8. Tension the V-belt (7) by turning the clutch halves (3) and (4) in opposite directions.



- 9. Insert the V-belt into the clutch.
- 10. Fasten clutch (7) to clutch shaft with V-belt.



- 11. Check the push-through dimension.
- ► X = approx. 10 mm | 0,3937 in.
- 12. Correct if necessary.
- 13. Firmly tighten the threaded pins (2).
- 14. Insert the belt guard.
- 15. Screw in and close the tension lock.
- 16. Start the engine and let it run for 3 5 minutes.
- 17. Open the tension lock and unscrew.
- 18. Remove the upper belt guard (2).
- Check the push-through dimension again, correct if necessary.
- 20. Install the V-belt guard.
- √ V-belt tensed.

8.6 Hydraulics

WARNING!

Injury hazard from hydraulic fluid escaping under high pressure.



Hydraulic fluid escaping under high pressure can penetrate your skin and into your body and seriously injure you.

- a) The system must be depressurized before starting any work on the hydraulics.
- b) Contact a qualified workshop immediately if you suspect that the pressure system is damaged.

A CAUTION



Burn hazard from hot oil.

Working on the hot hydraulic system may pose a burn hazard from hot oil.



a) Wear safety gloves.

ENVIRONMENT



Environmental hazard from spilled operating materials.

- Collect the used oil and dispose of it in an environmentally-friendly manner.
- Do not allow oil to seep into the ground or the sewage system.

NOTE

- a) The hydraulic oil is only to be changed when the oil is warm and according to the lubrication chart and the lubricant table.
- b) Never start the engine if the hydraulic oil has been drained out.



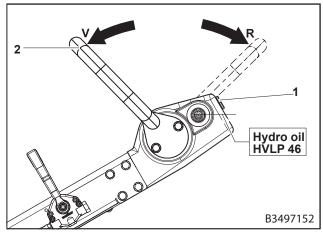
- Always change the hydraulic oil after a major repair has been made to the hydraulic system.
- Damaged seals must be changed immediately.
- e) Always change the return flow filter and the ventilation filter whenever the hydraulic oil is changed.

8.6.1 Check, refill hydraulic oil



IMPORTANT INFORMATION

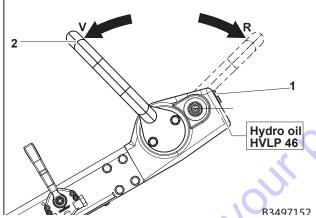
a) During filling, the shift path shortens.



To check the hydraulic oil level or to add hydraulic oil, do as follows:

- 1. Place the machine on an even, solid surface.
- 2. Shut off the engine.
- 3. Visually check the oil level.
- ► Refill oil, if necessary
- 4. Remove the locking screw (1).
- 5. Set the shift lever to «R» (2).
- 6. Fill with hydraulic oil while constantly switching the drive lever.
- 7. Stop adding oil when
 - A clear clack sound can be heard in the exciter during the shifting process.
 - No more air cushion can be felt on the shift lever.
- ► Before checking the oil level again, ventilate first (see chapter, 8.6.2 Bleed the circuit").
- 8. The correct oil level should move within the range shown (see figure), and the shift lever must be in position «*R*».
- Refill oil, if necessary
- ✓ The hydraulic oil level has been checked and topped up.

8.6.2 Bleed the circuit

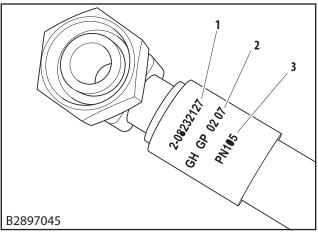


To bleed the circuit, do as follows

- 1. Place the machine on an even, solid surface.
- 2. Shut off the engine.
- 3. Switch the shift lever several times between «V» and «R».
- 4. Remove the locking screw (1).
- ▶ The air escapes.
- 5. Install the locking screw (1).
- 6. Repeat steps 3 to 5 until there are no air bubbles in the hydraulic oil or when moving the shift lever reveals a firm stop.
- **I NOTE:** When the machine is running, the shift path returns to normal.
- 7. Firmly tighten the locking screw (1).
- The circuit has been bled.

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8.6.3 Hydraulic hose lines



- 1 Manufacturer / production month & year
- 2 Maximum working pressure
- 3 Ammann item No.

A specialist must check the functionality of hydraulic hoses at regular intervals (at least once a year).

- · Hoses must be immediately replaced if:
 - The outer layer is damaged down to the core (chafe marks, cracks, cuts, etc.).
 - Brittleness of the outer layer (cracking of the hose cover).
 - There are deformations that do not match the natural shape of the hose. This applies both in the unpressurized and pressurized states (e.g. delamination, blistering, pinch points, kinks).
 - Leaks.

30 to Discound

- Damaged or deformed hose fittings (sealing function affected).
- Hose moving out of its fitting.
- Corroded fitting (reduces function and strength).
- Improper installation.
- Maximum of 6 years of use exceeded.

9. Battery

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WARNING

Explosion hazard due to a highly explosive oxyhydrogen gas mixture in batteries.



Charging batteries produces a highly explosive mixture of oxyhydrogen gases. Fire, sparks, naked flames and smoking can ignite this mixture and cause explosions.



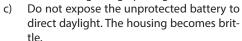
- a) Avoid the formation of sparks when handling cables and electrical equipment.
- b) Avoid short circuits.
- c) Avoid electrostatic discharge.
- Smoking, fire, sparks and naked flames are prohibited when handling batteries.

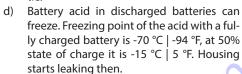
WARNING

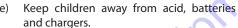
Risk of burns from battery acid.

Battery acid is highly corrosive and can cause serious injuries.

- a) Always wear protective gloves and eye protection when working on the battery.
- b) Do not tilt the battery. Acid can escape from the degassing openings.







- f) Neutralize acid splashes on skin or clothing immediately with acid neutralizer or soapy water. Rinse with plenty of water.
- g) Immediately rinse your eye with clean water for several minutes if acid splashes get into your eye. Afterwards, seek medical attention immediately.
- Seek medical advice immediately if you swallowed acid.

NOTE

- a) Dispose of used batteries at a collection point.
- For transportation, observe the instructions listed below.
- Never dispose of used batteries in the household waste.
- Transport damaged batteries in suitable containers (acid leakage).
- e) Observe the instructions on the battery and in these operating instructions.

9.1.1 Storage and transportation

- Unfilled batteries do not require any maintenance.
- Ensure that a filled battery is always charged and stored in a cool place (but not in the refrigerator or freezer).
- Check the charge condition at regular intervals or use a trickle charger.
- Recharge a filled battery at the latest at an acid density of 1.21 kg/l or 12.3 V open-circuit voltage or after the charging request of the visual charge condition indicator (see section, 9.1.4 External charging").
- Transport and store filled batteries always in an upright position, protected against tipping and short-circuit. Failure to do so can cause acid to leak

9.1.2 Start-up

- Observe the safety instructions.
- Batteries filled on delivery are ready for operation. Install only sufficiently charged batteries, min. 12.50 V open-circuit voltage.
- Remove the inspection plugs. Fill the individual cells of the battery with sulfuric acid of density 1.28 kg/l up to the max. acid level mark.
- Allow the battery to rest for at least 15 minutes. Tilt the battery slightly several times. Top up acid if necessary.
- Firmly screw on / press in the inspection plugs.
- Wipe off any acid splashes.
- Recharge the battery if it does not provide sufficient starting power due to low temperature or unfavorable storage conditions (see section "9.1.4 External charging").

9.1.3 Installation and removal

- Prior to removing the battery, switch off the engine and all power consumers.
- To remove the battery, first disconnect the negative terminal (-), then the positive terminal (+).
- Clean battery poles and terminals and apply acid-free grease on them.
- Brace the battery firmly (use original fastening devices).
- Remove the protective cap from the positive terminal only in the vehicle when you connect the battery. Put the cap on the terminal of the replaced battery to avoid short circuits and sparking.
- During installation, first connect the positive terminal (+), then the negative terminal (-).
- Ensure that the pole terminals are firmly seated.
- Take the mounting parts, such as pole covers, bracket, hose connection, filler plugs and pole terminal holder (if any) from the replaced battery and mount them in the same way as before.
 - Leave at least 1 gas outlet open, otherwise there is a risk of explosion. This is also important for the return transport of the old battery.







9.1.4 External charging

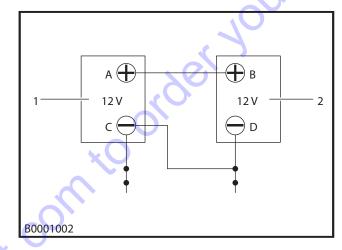
- Read and observe the operating instructions of the charger manufacturer.
- Prior to charging, check the electrolyte level. Adjust it if necessary (see section, 9.1.5 Maintenance").
- Use only a suitable, voltage-regulated charger of the same nominal voltage to charge the battery. If this is not possible, ensure that the battery is disconnected / removed. Recommendation:
- Charging current: Max. 4 amps. Charging voltage: 14.4 V
- Never charge a frozen battery or a battery that is hotter than 45 °C | 113 °F.
- Connect the positive terminal (+) of the battery to the positive terminal of the charger and the negative terminal (-) of the battery to the negative terminal of the charger.
- Switch on the charger only after the battery has been connected.
- At the end of charging, first switch off the charger.
- Interrupt charging if the acid temperature exceeds 55 $^{\circ}$ C | 131 $^{\circ}$ F
- Interrupt charging if the battery becomes hot or if acid leaks!
- The battery is fully charged when:
 - Current and voltage remain constant when a voltage-regulated charger is used.
 - The charging voltage of a current-controlled charger no longer increases within 2 hours, the automatic charger switches off or switches to trickle charging.
- Ensure good ventilation during the charging process.

9.1.5 Maintenance

- Keep the battery surface clean and dry. Clean it only with a damp or antistatic cloth.
- Protect poles / terminals against corrosion (as described in section 9.1.3).
- Check the electrolyte level (observe the inner or outer markings on the box or the visual level indicator in the cover).
- If necessary, fill up with demineralized or distilled water up to the maximum acid level mark (never add acid, foreign substances or so-called conditioners).
- See a specialist workshop if there is a significant loss of electrolytes.
- Check the battery if the starting power is insufficient. Recharge the battery if necessary (see section 9.1.3).

9.1.6 Jump start

- · Only use standardized jumper cables.
- Observe the operating instructions of the jumper cable manufacturer.
- Use only batteries of the same nominal voltage.
- Engine of the helper vehicle (1) off.
- Connect the jumper cable to the positive terminal (+) of the helper battery (A) and to the positive terminal (+) (B) of the plate compactor.
- Only then connect the jumper cable to the negative terminal (–) of the helper battery (C) and to a sturdy, bare ground of the vibration tamper (D) (do not use the negative terminal of the receiving battery as a connection point).



- Start the receiving vehicle (2).
- If the 1st start attempt failed, the helper vehicle can be started BEFORE the 2nd start attempt.
- Disconnect the jumper cables in reverse order.

Storage and disposal 10. of the machine



10.1 Storage and disposal of the machine

10.1.1 Storing the machine

If you want to shut down the machine for a longer period of time (longer than 6 weeks), park it on a pallet on a level, solid surface such that it is in a stable position.

- The storage location should be dry and protected.
- The ambient temperature should be between 0 °C | 32 °F and 45 °C | 113 °F.
- · Prior to storing the machine:
 - Clean it thoroughly.
 - Check it for leaks and damage, eliminate detected defects.
 - Cover it with a protective tarpaulin

10.1.2 Putting the machine back into operation

- Prior to putting the machine back into operation
 - Check the machine for leaks,
 - defective or leaking hydraulic hoses or
 - other damage.
- Eliminate detected defects.
- · Check and retighten all screw connections.

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10.2 Machine disposal

The user is obliged to abide by the national laws and regulations covering waste and environmental protection when disposing of the machine at the end of its service life. In these cases we recommend that you always

- Consult specialized companies that have been authorized for these activities.
- Contact the machine's manufacturer or the accredited contractual service organizations authorized by them.

The manufacturer accepts no liability for any harm caused to the health of users or for any environmental damage caused by failure to comply with the instructions above.

10.3 Disposal

ENVIRONMENT

Risk of environmental pollution due to spillage of hazardous substances



Disposing of electrical appliances in household waste or landfill sites can cause harmful substances to escape and enter the food chain. This can have a harmful effect on health and well-being.

- a) Do not dispose of batteries in household waste
- Observe local laws and regulations. Or contact an authorized Honda dealer for disposal.

Inspection

Have the electronic components checked by an electronics specialist.

Road rollers, trench rollers and plate compactors must undergo a safety inspection by an expert as required by the conditions of use and the operating conditions, but at least once a year.

10.3.1 Expiry of the service life

CAUTION



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Help in case of malfunctions 11.

Go to Discount, Equipment, com to order your parte

11.1 General information

- Observe the safety regulations.
- Only qualified and authorized persons are allowed to carry out repair work.
- In case of a malfunction, check again the operating and maintenance instructions to ensure correct operation and maintenance.
- Please contact an Ammann Service branch if you are unable to identify or eliminate the cause of the malfunction yourself.
- Always start with checking the most accessible causes, or those that are easiest to check (fuses, LEDs, etc.).
- Never come into contact with rotating parts.

11.2 MIL-lamp flash code error list

Only qualified and authorized persons are allowed to call	•
 In case of a malfunction, check again the operating and Please contact an Ammann Service branch if you are un 	
Please contact an Ammann Service branch if you are un	
Always start with checking the most accessible causes, Never come into contact with rotating parts.	or those
1.2 MIL-lamp flash code error list	
Error	Flash
Low oil pressure	1
Overheated engine	2
Loading control	3
RPM too high	8
Excess RPM	8
Oil temp. Too high St.1 (130°C)	2
Oil temp. Too high St.2 (137°C)	2
Oil temp. Cable break	2
Oil temp. Short circuit	2
Analog target value too high	4
Analog target value too low	4
TSC1 reception error	4
CM1 reception error	4
Battery voltage Too high	3
Battery voltage Too low	3
RPM signal interrupted	8
5V sensor voltage Too high	3
5V sensor voltage Low	3
barometric pressure too high (> 1103 mbar)	5
barometric pressure too low (< 572 mbar)	5
Fuel pump output short circuit Vbat	7
Fuel pump output short circuit ground	7
Glow plug output short circuit Vbat	7
Glow plug output short circuit ground	7
Injector power circuit open/low side short circuit ground	7
Injector shorted coil	7
Injector high side short circuit ground	7
Injector low side short circuit Vbat	7
Maintenance interval due	6
Processor failure	9

11.3 List of malfunctions

Possible cause	Remedial action
1. Engine does not start	
RPM lever in "STOP" position.	Set RPM lever in «START» position.
Not enough fuel.	
- Tank empty	Add fuel.
- Fuel filter obstructed.	Replace fuel filter.
- Fuel feed pump defective.	Check the fuel supply system.
No oil pressure.	check oil level, add if necessary
Not enough compression	Contact HATZ service
2. Engine stalls during operation	
 Fuel supply interrupted. 	
- Tank empty.	Add fuel.
- Fuel filter clogged.	Replace fuel filter.
 Fuel feed pump defective. 	Check the fuel supply system.
No oil pressure.	Check oil level, add if necessary.
 Mechanical Defects. 	Contact HATZ service.
3. Engine runs, device doesn't move forward	0,
 Fuel supply hindered. 	
- Tank empty.	Add fuel.
- Fuel filter clogged.	Replace fuel filter.
- Tank ventilation inadequate.	Provide adequate ventilation.
- Line connections leaky.	Check screw joints.
Air filter dirty.	Clean or replace air filter.
Valve clearance wrong.	Adjust valve clearance.
Too much oil in engine.	Correct engine oil level.
Too much oil in exciter.	Check exciter oil level.
Fault in hydraulic system.	Contact Ammann service.
4. Engine is running, machine does not move for	ward
V-belt tension too low.	Retense V-belt.
V-belt cracked.	Replace V-belt.
 Linings of centrifugal clutch worn. 	Replace linings and springs.
Too much oil in exciter.	Check exciter oil level
Fault in hydraulic system.	Contact Ammann service.

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