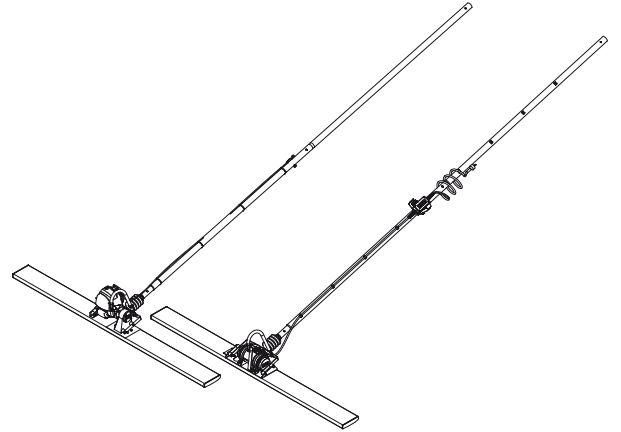


Safety and operating instructions

Vibrating screeds



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Introduction

Thank you for choosing a product from Atlas Copco. Since 1873, we have been committed to finding new and better ways of fulfilling our customers' needs. Through the years, we have developed innovative and ergonomic product designs that have helped customers improve and rationalize their daily work.

Atlas Copco has a strong global sales and service network, consisting of customer centers and distributors worldwide. Our experts are highly trained professionals with extensive product knowledge and application experience. In all corners of the world, we can offer product support and expertise to ensure that our customers can work at maximum efficiency at all times.

For more information please visit: www.atlascopco.com

Construction Tools EOOD

7000 Rousse

Bulgaria

About the Safety and operating instructions

The aim of the instructions is to provide you with knowledge of how to use the machine in an efficient, safe way. The instructions also give you advice and tell you how to perform regular maintenance on the machine.

Before using the machine for the first time you must read these instructions carefully and understand all of them.

Safety instructions

To reduce the risk of serious injury or death to yourself or others, read and understand the Safety and operating instruction before installing, operating, repairing, maintaining, or changing accessories on the machine.

Post this Safety and operating instruction at work locations, provide copies to employees, and make sure that everyone reads the Safety and operating instruction before operating or servicing the machine. For professional use only.

In addition, the operator or the operator's employer must assess the specific risks that may be present as a result of each use of the machine.

Save all warnings and instructions for future reference.

Safety signal words

The safety signal words Danger, Warning and Caution have the following meanings:

DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Work area

▲ DANGER Explosion hazard

If a warm machine comes into contact with explosives, an explosion could occur. During operating with certain materials, sparks and ignition can occur. Explosions will lead to severe injuries or death.

- ▶ Never operate the machine in any explosive environment.
- ▶ Never use the machine near flammable materials, fumes or dust.
- ▶ Make sure that there are no undetected sources of gas or explosives.

▲ WARNING Secure the working area

Cluttered benches and insufficient lighting can cause personal accidents and result in serious injuries.

- ▶ Keep the working area clean.
- ▶ Maintain adequate lighting in the working area.

Only qualified and trained persons may operate or maintain the machine. They must be physically able to handle the bulk, weight, and power of the machine. Always use your common sense and good judgement.

Keep bystanders, children, and visitors away while operating the machine. Distractions may cause loss of control.

Electrical safety

▲ DANGER Electrical hazard

There is a risk of electrical shocks from electrically powered machines which can lead to serious injuries or death.

- ▶ Avoid body contact with earthed (grounded) surfaces.
- ▶ Make sure that there are no concealed wires or other sources of electricity in the working area.
- ▶ Always check that the mains voltage corresponds with that stated on the data plate on the machine.

▲ WARNING Electrical safety

There is a risk of electrical shock if the electrical cable is not treated correctly, if the machine is damaged or modified. This can lead to serious injuries or death.

- ▶ The electrical plug on the machine must match the socket.
- ▶ Never modify the electrical plug to match the socket.
- ▶ Do not use adapter plugs with earthed (grounded) machines.
Unmodified plugs and matching sockets will reduce the risk of electrical shock.
- ▶ Never move the machine by dragging the electrical cable.
- ▶ Disconnect the cable only by pulling the plug, never pull the electrical cable.
- ▶ Make sure the electrical cable is not pinched in doors, fences or similar.
- ▶ Check that the electrical cable and cable plug are intact and in good condition.
- ▶ Never connect a damaged electrical cable to the machine.
- ▶ Never touch the electrical cable if it becomes damaged during the work. Disconnect the electrical cable plug from the socket.
- ▶ Always make sure that the electrical cable is kept away from water, oil and sharp edges.

- ▶ Do not expose the power tool to rain or wet conditions.
If water enters the machine, there is an increased risk of electrical shock.
- ▶ Use a residual current device (RCD) protected supply, if the machine must be operated in a damp location.
The use of an RCD reduces the risk of electrical shock.

Personal safety

Personal protective equipment

Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment, including at a minimum:

- Protective helmet
- Hearing protection
- Impact resistant eye protection with side protection
- Respiratory protection when appropriate
- Protective gloves
- Proper protective boots
- Appropriate work overall or similar clothing (not loose-fitting) that covers your arms and legs.

Drugs, alcohol or medication

▲ **WARNING** Drugs, alcohol or medication

Drugs, alcohol or medication may impair your judgment and powers of concentration. Poor reactions and incorrect assessments can lead to severe accidents or death.

- ▶ Never use the machine when you are tired or under the influence of drugs, alcohol or medication.
- ▶ No person who is under the influence of drugs, alcohol or medication may operate the machine.

▲ **WARNING** Involuntary start

Involuntary start of the machine may cause injury.

- ▶ Keep your hands away from the start and stop device until you are ready to start the machine.
- ▶ Learn how the machine is switched off in the event of an emergency.

▲ **WARNING** Slipping, tripping and falling hazards

There is a risk of slipping or tripping or falling, for example tripping on the hoses or on other objects. Slipping or tripping or falling can cause injury. To reduce this risk:

- ▶ Always make sure that no hose or other object is in your way or in any other person's way.
- ▶ Always make sure you are in a stable position with your feet as far apart as your shoulders width and keeping a balanced body weight.

▲ **WARNING** Dust and fume hazard

Dusts and/or fumes generated or dispersed when using the machine may cause serious and permanent respiratory disease, illness, or other bodily injury (for example, silicosis or other irreversible lung disease that can be fatal, cancer, birth defects, and/or skin inflammation).

Some dusts and fumes created by compaction work contain substances known to the State of California and other authorities to cause respiratory disease, cancer, birth defects, or other reproductive harm. Some examples of such substances are:

- Crystalline silica, cement, and other masonry products.
- Arsenic and chromium from chemically-treated rubber.
- Lead from lead-based paints.

Dust and fumes in the air can be invisible to the naked eye, so do not rely on eye sight to determine if there is dust or fumes in the air.

To reduce the risk of exposure to dust and fumes, do all of the following:

- ▶ Perform site-specific risk assessment. The risk assessment must include dust and fumes created by the use of the machine and the potential for disturbing existing dust.
- ▶ Use proper engineering controls to minimize the amount of dust and fumes in the air and to minimize build-up on equipment, surfaces, clothing, and body parts. Examples of controls include: exhaust ventilation and dust collection systems, water sprays, and wet drilling. Control dusts and fumes at the source where possible. Make sure that controls are properly installed, maintained and correctly used.
- ▶ Wear, maintain and correctly use respiratory protection as instructed by your employer and as required by occupational health and safety regulations. The respiratory protection must be effective for the type of substance at issue (and if applicable, approved by relevant governmental authority).

- ▶ Work in a well ventilated area.
- ▶ If the machine has an exhaust, direct the exhaust so as to reduce disturbance of dust in a dust filled environment.
- ▶ Operate and maintain the machine as recommended in the operating and safety instructions
- ▶ Wear washable or disposable protective clothes at the worksite, and shower and change into clean clothes before leaving the worksite to reduce exposure of dust and fumes to yourself, other persons, cars, homes, and other areas.
- ▶ Avoid eating, drinking, and using tobacco products in areas where there is dust or fumes.
- ▶ Wash your hands and face thoroughly as soon as possible upon leaving the exposure area, and always before eating, drinking, using tobacco products, or making contact with other persons.
- ▶ Comply with all applicable laws and regulations, including occupational health and safety regulations.
- ▶ Participate in air monitoring, medical examination programs, and health and safety training programs provided by your employer or trade organizations and in accordance with occupational health and safety regulations and recommendations. Consult with physicians experienced in relevant occupational medicine.
- ▶ Work with your employer and trade organization to reduce dust and fume exposure at the worksite and to reduce the risks. Effective health and safety programs, policies and procedures for protecting workers and others against harmful exposure to dust and fumes must be established and implemented based on advice from health and safety experts. Consult with experts.

▲ **WARNING Broken power switch**

The power switch does not control the machine. A broken power switch is dangerous and must be repaired.

- ▶ Do not use the machine if the power switch is broken and cannot be controlled.
- ▶ Maintain the power switch.

▲ **WARNING Projectiles**

Failure of the work piece, of accessories, or even of the machine itself may generate high velocity projectiles. During operating, splinters or other particles from the compacted material may become projectiles and cause personal injury by striking the operator or other persons. To reduce these risk:

- ▶ Use approved personal protective equipment and safety helmet, including impact resistant eye protection with side protection.
- ▶ Make sure that no unauthorised persons trespass into the working zone.
- ▶ Keep the workplace free from foreign objects.

▲ **WARNING Unexpected movements**

The machine is exposed to heavy strains during operation. If the machine breaks or gets stuck, there may be sudden and unexpected movement that can cause injuries.

- ▶ Always inspect the machine prior to use. Never use the machine if you suspect that it is damaged.
- ▶ Make sure that the handle is clean and free of grease and oil.
- ▶ Keep your feet away from the machine.
- ▶ Never sit on the machine.
- ▶ Never strike or abuse the machine.
- ▶ Pay attention and look at what you are doing.

Operating, precautions

▲ **WARNING Incorrect usage**

An incorrect use of the machine, accessories, and insertion tools/ cutting blades can result in serious injuries or a hazardous situation.

- ▶ Use the machine, accessories and tools in accordance with the safety instructions.
- ▶ Use the machine for what it is designed for, and in the way it is intended.
- ▶ Use the correct machine for the work that is going to be performed.
- ▶ Do not force the machine while operating.
- ▶ Take the working conditions into account.

▲ WARNING Vibration hazards

Normal and proper use of the machine exposes the operator to vibration. Regular and frequent exposure to vibration may cause, contribute to, or aggravate injury or disorders to the operator's fingers, hands, wrists, arms, shoulders and/or nerves and blood supply or other body parts, including debilitating and/or permanent injuries or disorders that may develop gradually over periods of weeks, months, or years. Such injuries or disorders may include damage to the blood circulatory system, damage to the nervous system, damage to joints, and possibly damage to other body structures.

If numbness, persistent recurring discomfort, burning sensation, stiffness, throbbing, tingling, pain, clumsiness, weakened grip, whitening of the skin, or other symptoms occur at any time, when operating the machine or when not operating the machine, stop operating the machine, tell your employer and seek medical attention. Continued use of the machine after the occurrence of any such symptom may increase the risk of symptoms becoming more severe and/or permanent.

Operate and maintain the machine as recommended in these instructions, to prevent an unnecessary increase in vibration.

The following may help to reduce exposure to vibration for the operator:

- ▶ If the machine has vibration absorbing handles, keep them in a central position, avoid pressing the handles into the end stops.
- ▶ When the percussion mechanism is activated, the only body contact with the machine you must have are your hands on the handle or handles. Avoid any other contact, for example supporting any part of the body against the machine or leaning onto the machine trying to increase the feed force.
- ▶ Make sure that the machine is well-maintained and not worn out.
- ▶ Immediately stop working if the machine suddenly starts to vibrate strongly. Before resuming the work, find and remove the cause of the increased vibrations.
- ▶ Participate in health surveillance or monitoring, medical exams and training programs offered by your employer and when required by law.
- ▶ When working in cold conditions wear warm clothing and keep hands warm and dry.

See the "Noise and vibration declaration statement" for the machine, including the declared vibration values. This information can be found at the end of these Safety and operating instructions.

▲ WARNING Noise hazard

High noise levels can cause permanent and disabling hearing loss and other problems such as tinnitus (ringing, buzzing, whistling, or humming in the ears). To reduce risks and prevent an unnecessary increase in noise levels:

- ▶ Risk assessment of these hazards and implementation of appropriate controls is essential.
- ▶ Operate and maintain the machine as recommended in these instructions.
- ▶ If the machine has a silencer, check that it is in place and in good working condition.
- ▶ Always use hearing protection.

▲ WARNING Accessory hazards

Accidental engagement of accessories during maintenance or installation can cause serious injuries, when the power source is connected.

- ▶ Never inspect, clean, install, or remove accessories while the power source is connected.

Maintenance, precautions

▲ WARNING Machine modification

Any machine modification may result in bodily injuries to yourself or others.

- ▶ Never modify the machine. Modified machines are not covered by warranty or product liability.
- ▶ Always use original parts and accessories approved by Atlas Copco.
- ▶ Change damaged parts immediately.
- ▶ Replace worn components in good time.

▲ WARNING Damaged machine parts

Lack of maintenance will result in damaged or worn parts that can cause accidents.

- ▶ Check the moving parts for misalignment or binding.
- ▶ Check the machine for broken or, in other ways, damaged parts.
Damaged or worn parts can effect the operation of the machine.

Storage

- ◆ Keep the machine in a safe place, out of the reach of children and locked up.

Overview

To reduce the risk of serious injury or death to yourself or others, read the Safety instructions section found on the previous pages of this manual before operating the machine.

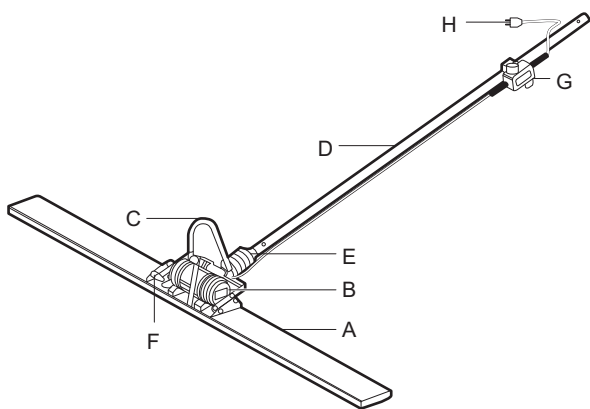
Design and function

BV 20 series are designed for finishing vibrating of concrete surfaces. The beams are especially designed for vibrations of high density concrete and to rectify wet concrete, edges and corners.

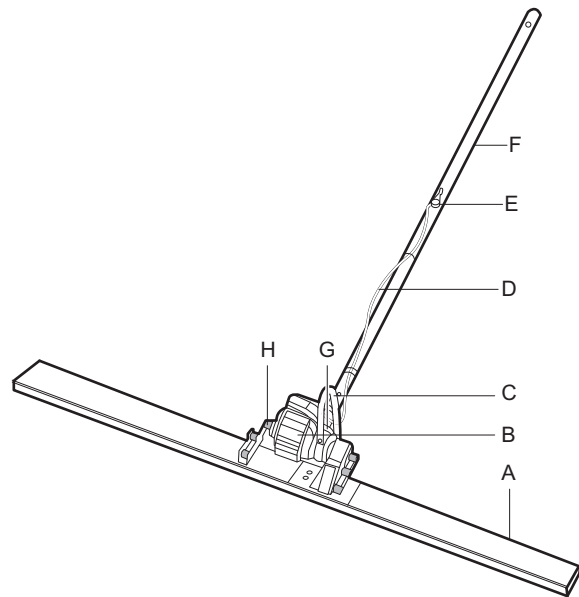
BV 20E is a single-phase electrical vibrator with eccentric weights attached to each side of the motor.

BV 20G is a vibrator with petrol driven motor with eccentrics.

Main parts



- A. Beam
- B. Motor
- C. Lifting ring
- D. Handle link
- E. Rotation device
- F. Dampers
- G. Control unit
- H. Plug

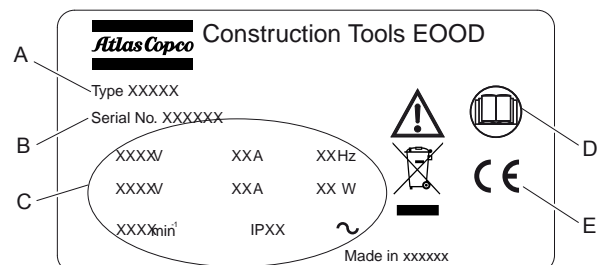


- A. Beam
- B. Engine
- C. Lifting ring
- D. Accelerator cable
- E. Throttle
- F. Handle
- G. Rotation device
- H. Vibration damper

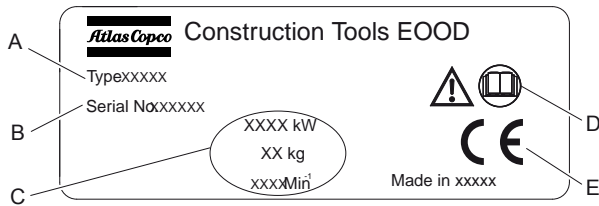
Labels

The machine is fitted with labels containing important information about personal safety and machine maintenance. The labels must be in such condition that they are easy to read. New labels can be ordered from the spare parts list.

Data plate



Electrical drive unit



Petrol drive unit

- A. Machine type.
- B. Product identification number.
- C. Technical characteristics of the machine.
- D. The warning symbol associated with the symbol of a book means that the user must read the Safety instructions before using the machine for the first time.
- E. The CE symbol means that the machine is EC-approved. See section EC Declaration of Conformity which is delivered with the machine for more information.

Safety label



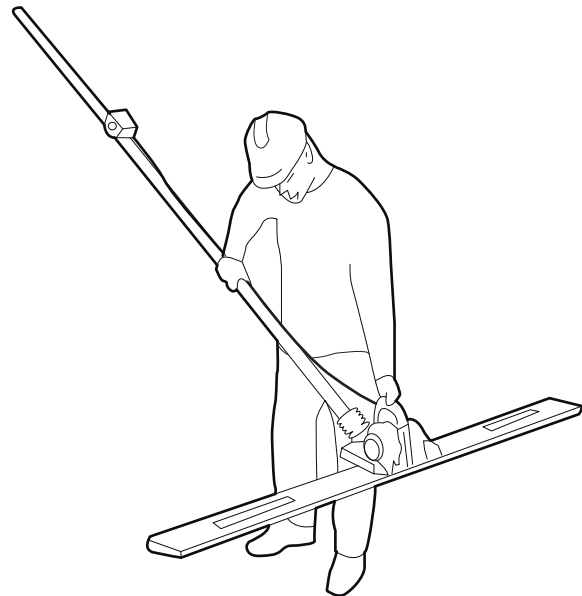
- ◆ Instruction manual. The operator must read the Safety and operating instructions before operating the machine.
- ◆ Use protective gloves.
- ◆ Use ear protectors.

Operation

Preparations before vibrating

For transport

The beam is equipped with a lifting eye.



BV 20G

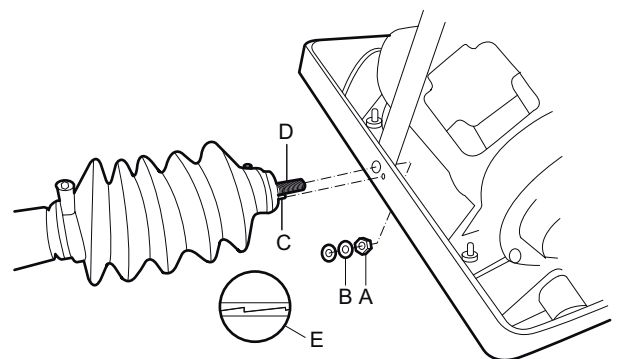
1. Close the fuel valve.
2. Keep the engine vertical to prevent the fuel from spilling. There is a risk for ignition of leaked or vapourised fuel.

Vibrating

NOTICE The rotation device is disassembled to save space when transporting.

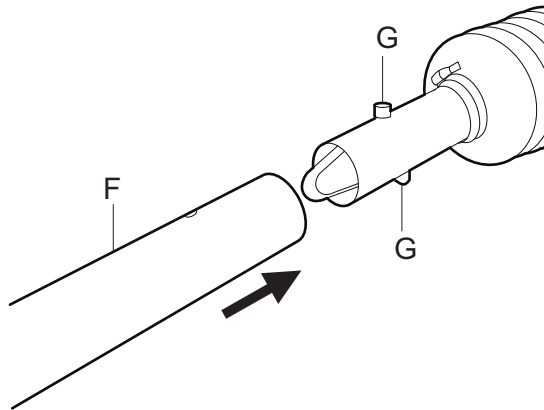
Assembly of handle link

1. Remove the nut (A) and washers (B) from the rotation device screw.



2. Assemble the rotation device on the beam mount.
3. Make sure that the guide pins (C) and (D) engage in their respective mount holes.

4. Tighten the washers (B) and nut (A) on the rotation device screw.
5. Install the handle link (F). Check that the blocking pins (G) engages the holes in the tube to lock the handle and link firmly together.

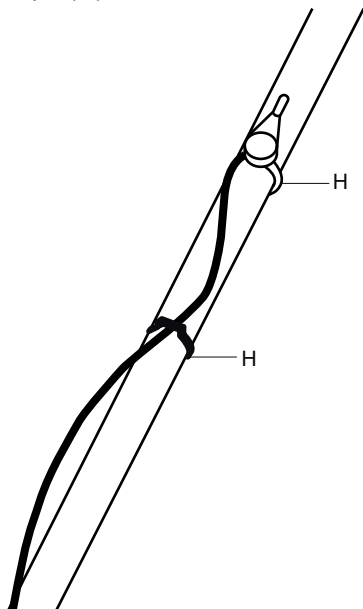


For BV 20E

1. Attach the control unit to the handle with the screws that are located under the control unit.

For BV 20G

1. Attach the speed control to the handle with a clamp.
2. Attach the accelerator cable on the handle with clips (H).



**Preparations
BV 20E**

1. Check the general condition of the equipment and connectors and cables.
NOTICE Replace any damaged part immediately.
2. Only use insulated electrical extension cables designed for outside use (type H07-RN-F).
3. Check that the power supply voltage and type of current corresponds with the label on vibrator. (See the label on the machine.)
4. The vibrator must be connected to a grounded connector through a RCD-breaker.
5. For safety reasons the supply cable to the machine must be shorter than 10 meters (32 ft.)
6. Make sure that the supply cable can run free along the surface of the working area.
7. Never pull in the cable if it has been trapped. The cable can be damaged if it gets caught.

BV 20G

1. Do not operate the motor in an area with insufficient ventilation.
2. Make sure that no flammable material comes in contact with the exhaust.
3. Check the fuel level.
4. Check the oil level and make sure that it is topped up.
5. For more information See the manual for the motor.

Refuelling

1. Do not smoke, stand near a flame or another potential danger when refuelling.
2. Stop the motor and remove the fuel cap.
3. Refuel only with petrol.
4. Close the fuel valve before refuelling.
5. Always use a filter when refuelling.
6. Wipe up any spilled fuel before starting up the motor.

General inspection

Before using the BV 20E:

1. Clean and inspect the machine and the functions before use.
2. Check for damages.

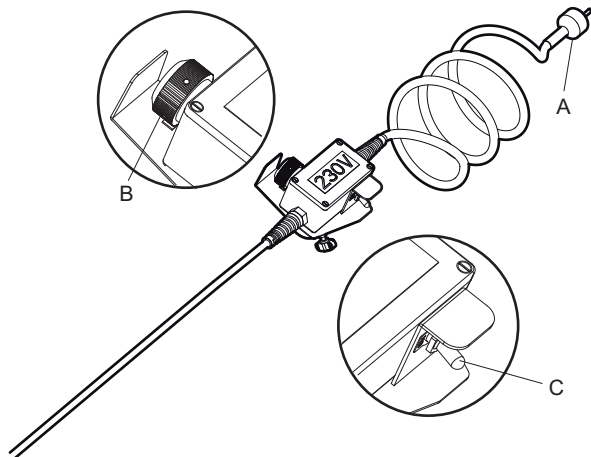
Before using the BV 20G:

1. Clean and inspect the machine and the functions before use.
2. Check for leaks and damages.

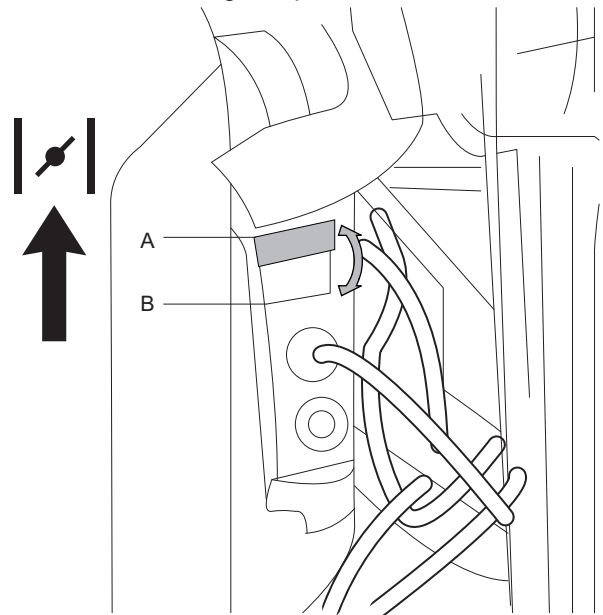
Operation

Starting up BV 20E

1. Check the machine's power supply connector for any damages.
2. Connect the plug (A) to an electrical outlet with the correct power supply.

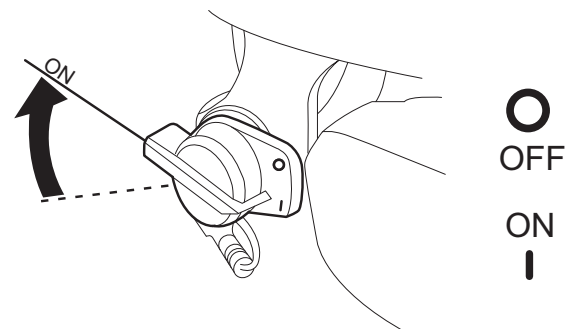


1. Open the fuel valve.
2. If the engine is cold, close the choke.
3. Check that the engine speed lever is set to idle.



3. When using the machine for the first time, turn the throttle knob (B) on the control unit to its maximum counter clockwise direction.
NOTICE To prevent the knob from changing during work the knob may seem a bit hard to turn.
4. Set the switch (C) to "ON" to start the machine.
5. Increase the speed to the desired level by turning the knob (B) clockwise.

4. Set the switch to "ON" position.

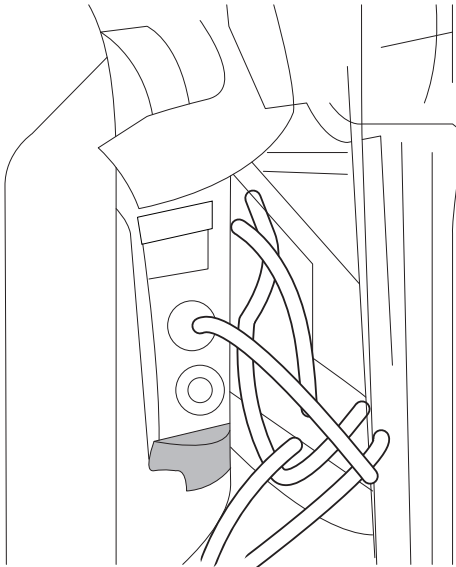


Stopping BV 20E

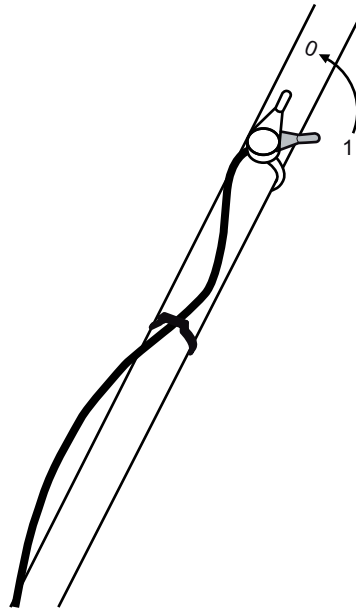
1. Set the switch (C) to "OFF" to stop the machine.
NOTICE The speed does not have to be reduced first when turning the vibrator off. At next start up, the machine will continue running at the set speed.

Starting up BV 20G

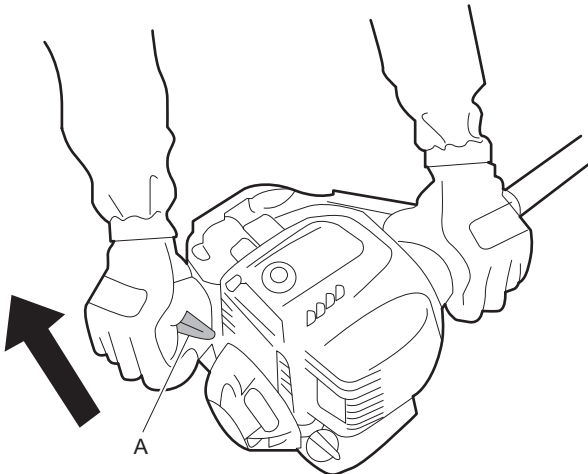
5. Press the primer until the fuel can be seen in the fuel return pipe.



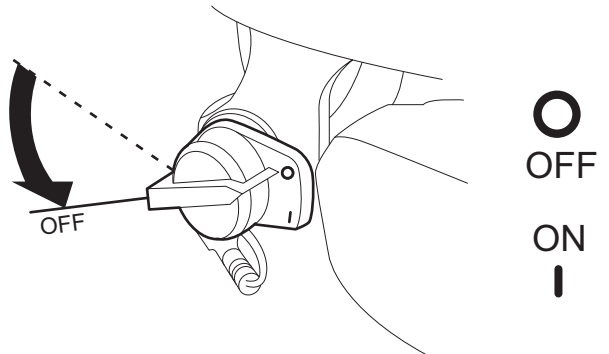
1. Reduce the speed by turning the control lever to position 0.



6. Pull the starter to start the engine.



2. Set the switch to the "OFF" position.



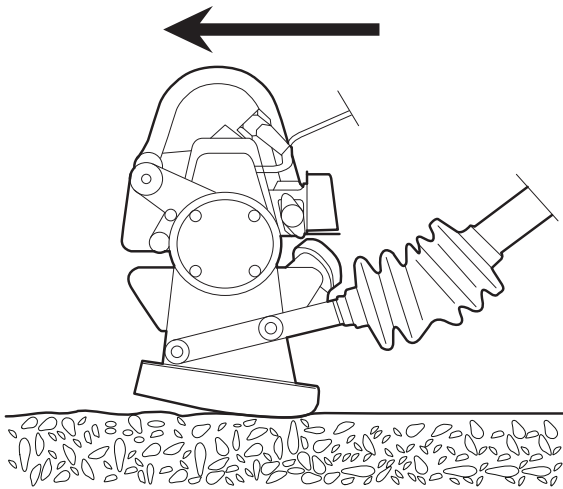
7. Immediately open the choke if it was closed and allow the engine to warm up for a few minutes.
8. Increase the engine speed with the control lever.

3. Close the fuel valve.
NOTICE The vibration decreases with the drop of the engine speed and stops completely when the engine is switched off.

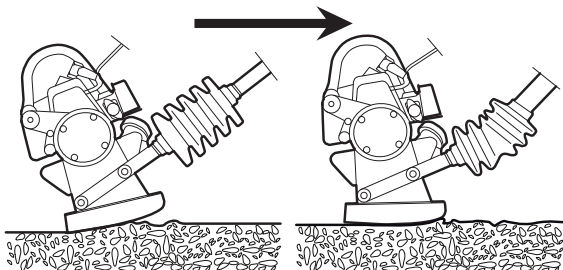
Stopping BV 20G

Adjusting the work angle

1. Slide the beam on the surface of the concrete.
2. Simultaneously turn the handle link in the counter clockwise direction.



3. Position the handle link on your shoulder.
4. Pull the beam backwards.
5. Simultaneously turn the handle link to adjust the work angle so the edge of the beam closest to you is slightly raised.



Use

1. Spray form oil under the beam to stop it from sticking to the concrete.
2. Place the beam at the beginning of the first section.
3. Start up the machine.
4. Turn the handle link to obtain the optimum beam angle on the concrete surface. See section "Adjusting the work angle".
5. Adjust the vibration frequency according to the fluidity of the concrete to obtain the desired result.
6. Position the handle link on your shoulder.

7. Slowly walk backwards pulling on the beam. The footprints are removed by the vibration from the beam.
8. When you smooth the next section, position the beam so that it overlaps about 15 cm (5.9 in.) (A) on the already smoothed surface.



Vibrating and smoothing concrete

The vibrations are generated by eccentric weights. The eccentric weights are directly driven by the rotor on BV 20E and by the engine shaft on BV 20G. This means that the vibration starts as soon as the machine is started and increases until the maximum operating speed has been reached. Different vibration frequencies are required depending on the consistency and composition of the concrete. Normally dry concrete requires a higher speed of vibration and wet concrete requires a lower speed of vibration. The speed of the movement together with the vibration speed affects the result.

When taking a break

- ◆ During all breaks you must place the machine in such a way that there is no risk for it to be unintentionally started. Make sure to place the machine on the ground, so that it can not fall.
- ◆ Switch off the power supply in the event of a longer break or when leaving the workplace.

Maintenance

Regular maintenance is a basic requirement for the continued safe and efficient use of the machine. Follow the maintenance instructions carefully.

- ◆ Before starting maintenance on the machine, clean it in order to avoid exposure to hazardous substances. See “Dust and fume hazard”.
- ◆ Use only authorised parts. Any damage or malfunction caused by the use of unauthorised parts is not covered by warranty or product liability.
- ◆ When cleaning mechanical parts with solvent, comply with appropriate health and safety regulations and ensure there is satisfactory ventilation.
- ◆ For major service of the machine, contact the nearest authorised workshop.
- ◆ After each service, check that the machine's vibration level is normal. If not, contact the nearest authorised workshop.

Every 10 hours of operation (daily)

Lubrication

NOTICE Do not mix grease with different characteristics.

It may be necessary to grease the rotation device between the handle link and the beam after prolonged use. Use a grease of the type Shell Regina 2 or an equivalent type of grease.

Every 75 hours of operation (or every second week)

Every day

Clean the beam with water and a brush after use. Hardened concrete is difficult to remove and a clean surface is important for a good work result.

Apply a thin coat of lubricant (oil) to the beam to facilitate the next cleaning operation.

NOTICE If a water jet is used, clean the beam with care. Never direct the water jet towards the engine or the electrical parts (control unit). This can damage the machine.

BV 20G

- ◆ Check the nuts and bolts. Tighten them if necessary.
- ◆ Check the engine speed control and the cable.
- ◆ Check the oil level and top up if necessary (SAE 10W-30).
- ◆ Check the air filter.

First 10 hours (first month)

Drain the engine.

Every 100 hours of operation (or monthly)

Every 25 hours (3 months)

Clean the air filter.

Every 100 hours (yearly)

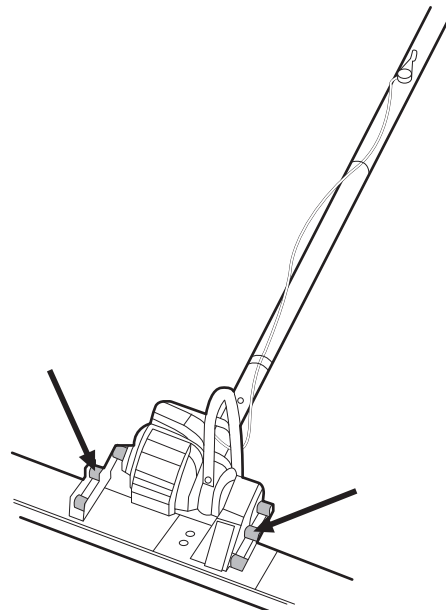
- ◆ Clean and adjust the spark plug.
- ◆ Check the fuel filter.
- ◆ Clean the fuel tank.

Every 300 hours (second year)

Replace the spark plug.

Vibration dampers

Check the condition of the rubber dampers located on either side of the vibrator at regular interval.



Storage

- ◆ Clean the machine properly before storage, in order to avoid hazardous substances. See section “Dust and fume hazard”.
- ◆ Always store the machine in a dry place.

Disposal

A used machine must be treated and disposed in such way that the greatest possible portion of the material can be recycled and any negative influence on the environment is kept as low as possible, and in accordance with local restrictions.

Always send used filters and drained oil remnants to environmentally correct disposal.



The electronic and electrical devices may contain potentially hazardous substances. Do not dispose of them in the nature. Dispose them according to local laws and regulations for the country of use. According to the European directives 2002/95/EC and 2002/96/EC.

Troubleshooting

Problem	Model	Cause	Solution
The screed does not start.	Petrol drive.	The engine is set to the OFF position.	Set the engine to ON position.
		The petrol tank is empty.	Fill the tank.
		The engine is cold.	Use the choke.
		Engine failure.	Check the engine manufactures instructions.
The screed does not start.	Electric drive.	No power supply.	Check the power supply and cable.
		The cable to the power switch is broken.	Check the cable and replace if necessary.
		A faulty connection inside the connection box.	Check and change the connections if necessary.
		The carbon brushes are worn out.	Change the carbon brushes.
		The vibrator is broken.	Control the vibrator for mechanical friction or blockage inside the vibrator.
The concrete vibration is not uniform.	Petrol drive.	Too low centrifugal force.	Adjust the centrifugal force.
	All	Too low frequency.	Adjust the vibration frequency.
		Wrong vibration technique.	Operate as intended (see the "Operation" section).
The screed does not vibrate.	Petrol drive.	The vibration damper on the vibrating shaft is broken.	Change the damper and the bearings.
Too high vibration in the handle.	All	The vibration dampers are worn out.	Change the vibration dampers.
Too high noise.	All	The vibrator bearings are broken.	Replace the bearings.

Technical data

Machine data

	BV 20E	BV 20G
Model	-	Honda GX25 NT-STCS-OH
Voltage, (V)	230	-
Phases	1	-
Frequency, (Hz)	50/60	-
Power, kW (HP)	0.27 (-)	0.72 (1)
Protection	IP57	-
Speed, r.p.m.	2,000 - 10,000	7,000
Weighted effective acceleration uncertainty (K) m/s ^{2*} (ft/s ^{2*})	-	3.2 (10.49)
Direction of rotation	-	Counter clockwise
Fuel	-	Unleaded petrol
Tank capacity, liter (gallon)	-	0.58 (0.12)
Oil tank capacity, liter (gallon)	-	0.08 (0.01)

* Weighted effective acceleration measured in water at 2 meter (6.56 ft.) from the end of the poker according to EN ISO 5349.

Weights and dimensions

	BV 20E	BV 20G
Total weight, kg (lbs)	19.8 (4.35)	16.6 (3.65)
Handle link weight (2 pcs.), kg (lbs)	1.8 (3.96)	1.8 (3.96)
Beam dimensions: L x W x H mm (in.)	2000 x 152 x 35 (78.7 x 5.98 x 1.37)	2000 x 152 x 35 (78.7 x 5.98 x 1.37)
Handle link dimensions: L x W x H mm (in.)	1,800 x 2, Ø44 (70.86 x 0.08, Ø1.73)	1,800 x 2, Ø44 (70.86 x 0.08, Ø1.73)
Working width of the beam, m (ft.)	2 (6.56)	2 (6.56)

Noise and vibration declaration statement

Guaranteed sound power level **L_{wa}** according to EN ISO 3744 in accordance with directive 2000/14/EC.

Sound pressure level **L_{pa}** according to EN ISO 11203.

Vibration value determined according to EN ISO 20643, EN ISO 5349-2. See table "Noise and vibration data" for the values etc.

These declared values were obtained by laboratory type testing in accordance with the stated directive or standards and are suitable for comparison with the declared values of other machines tested in accordance with the same directive or standards. These declared values are not suitable for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, in what material the machine is used, as well as upon the exposure time and the physical condition of the user, and the condition of the machine.

We, Construction Tools EOOD, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.

This machine may cause hand-arm vibration syndrome if its use is not adequately managed. An EU guide to managing hand-arm vibration can be found at <http://www.humanvibration.com/humanvibration/EU/VIBGUIDE.html>
 We recommend a programme of health surveillance to detect early symptoms which may relate to vibration exposure, so that management procedures can be modified to help prevent future impairment.

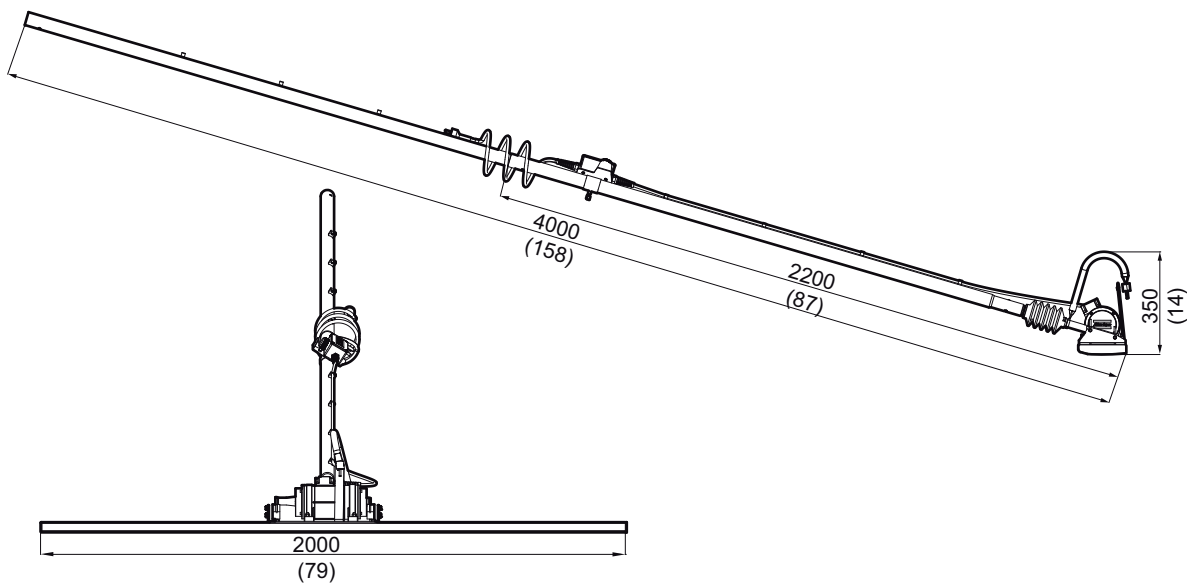
Noise data

Noise	
Declared values	
Sound pressure	
EN ISO 11203	
Type	Lpa
BV 20E	-
BV 20G	91

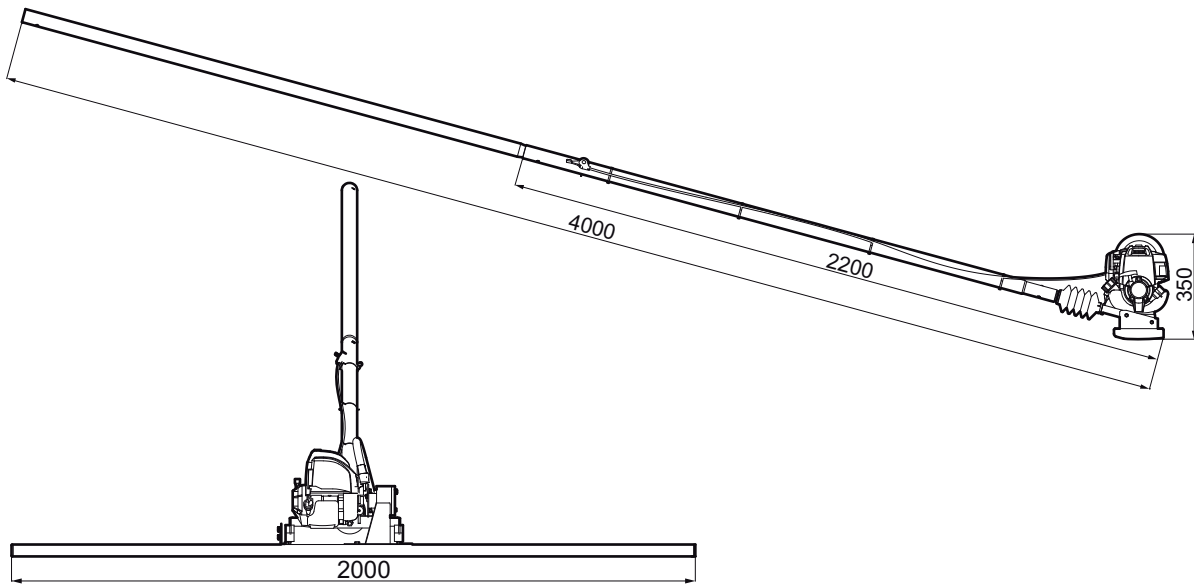
Dimensions

mm (in.)

BV 20E



BV 20G



EC Declaration of Conformity

EC Declaration of Conformity

We, Construction Tools EOOD, hereby declare that the machines listed below conform to the provisions of EC Directive 2006/42/EC (Machinery Directive), and the harmonised standards mentioned below.

Type	Input power (W)	Speed at full load (min-1)	Weight(kg)
BV 20E	270	10,000	19.8
BV 20G	720	7,000	16.6

Following harmonised standards were applied:

- ◆ EN ISO 12649

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