BELT SANDER – LIHVUS



User manual



LIHVUS

Declaration of Conformity

Assuming full responsibility, we hereby declare that the product at hand meets the standard requirements described in:

*~98/37/EWG,~98/79EWG,~89/336/EWG,~93/68EWG,~73/23/EWG

and is constructed in accordance with the standard conditions of

** EN 292-1, EN 292-2, EN 294, EN 55014, EN 60204-1.

28 May 2021 Janar Toom

OÜ Sekta, 18 Kivipõllu, 76 506 Saue, Estonia

OÜ Sekta makes every effort to ensure that its production meets the high-standard requirements of quality and reliability, and guarantees to the primary buyer/consumer that each product is manufactured using flawless materials and works impeccably, by the following standards:

ONE YEAR WARRANTY FOR ALL PRODUCTS, UNLESS STATED OTHERWISE.

The warranty does not cover damage caused during transportation of the appliance, or the direct or indirect consequences of improper, poor, or negligent use, or accidents; due to natural wear or breakage; spontaneous repairs or changes, or due to a lack of proper maintenance.

OÜ Sekta limits all the warranties named above from the period of the date of purchase of the product. To make use of this warranty, the product or one of its components must be returned to OÜ Sekta for inspection.

The returned goods must include the documents proving the date of purchase and explaining the reason for the complaint.

If, during inspection, a defect is found, the product will be repaired or replaced.

OÜ Sekta retains the right to make changes regarding the components, attachments, and additional accessories, if it is deemed necessary, regardless of the reason.

Any technical solution or parts of the belt sander Lihvus, the user manual or any of its components may not be copied or used without the explicit permission of OÜ Sekta.

INTRODUCTION

We thank you for having chosen our high-quality product. We hope you will find our product highly useful in your work. Before you begin using the belt sander Lihvus, we ask you to read the user manual to find out how to use the appliance safely. We wish you safe and pleasant sanding!

SAFETY REGULATIONS

READ THROUGH THESE INSTRUCTIONS CAREFULLY, PAYING CLOSE ATTENTION TO SAFETY REGULATIONS AND WARNINGS. USE THE APPLIANCE IN A PROPER AND ATTENTIVE MANNER FOR THE PURPOSE IT WAS CREATED. IGNORING THE REGULATIONS MAY RESULT IN BODILY HARM AND/OR MATERIAL DAMAGE. KEEP THIS MANUAL FOR LATER USE.

Proper use of the appliance also requires compliance with all operation and maintenance instructions provided in this manual. In addition to the safety regulations provided in this manual and the local regulations of every country, the generally recognized technical regulations must also be observed when handling metalworking equipment.

Any other use exceeds the limits of intended use. If the appliance has been used in an unacceptable manner, all obligations of the manufacturer become void and sole responsibility rests with the user.

Check the condition of the appliance and the installation of safety components every day before turning on the appliance. Work may not begin if they are not in order. To protect against the unintentional activation of the appliance, unplug the power cord from the outlet.

An operating appliance must not be left without supervision. Before leaving your place of work, the appliance must be turned off.

The appliance may only be used by persons who have the necessary experience and knowledge to do so, and who have no physical, mental, or sensory disabilities; who are supervised while using the appliance, or who have been taught to use the appliance safely

and who comprehend the dangers related to using the appliance. Children may not play with the appliance or clean it.

THE ELECTRICAL INSTALLATION OF THE APPLIANCE MAY ONLY BE PERFORMED BY AN AUTHORIZED ELECTRICIAN.

KEEP THE WORKSPACE CLEAN AND TIDY.

Dangerous situations may arise in an untidy workspace.

DO NOT WORK UNDER DANGEROUS CONDITIONS.

Protect electrical appliances from precipitation. Do not use the electrical appliance in a humid or wet room. Ensure proper lighting in your place of work. Do not use the electrical appliance if there are flammable liquids, gases, powders, dust, or other flammable materials nearby.

PROTECT YOURSELF FROM ELECTRIC SHOCK.

Always make sure that the mains voltage and frequency correspond to the data provided on the appliance rating plate. Avoid contact with earthed or grounded surfaces, like pipes, radiators, cookers, or refrigerators.

DO NOT ALLOW CHILDREN NEAR THE APPLIANCE.

Make sure that other unauthorized persons are kept away from the appliance and its power cord.

Animals, birds, children, or other living beings that might be injured may not be in the room you are sanding in.

IF THE ELECTRICAL APPLIANCE IS NOT BEING USED, IT MUST BE MAINTAINED PROPERLY.

If you do are not using the appliance, store it somewhere dry – out of the reach of children.

DO NOT OVERLOAD THE APPLIANCE.

The appliance works best and safest at the specified speed.

USE A SUITABLE APPLIANCE FOR YOUR WORK.

Do not attempt to forcefully perform work with the appliance that it was not designed for, and for which a more powerful appliance would be needed.

DRESS APPROPRIATELY.

Do not wear clothes that are too baggy, or clothes that might get stuck on moving parts. Wear non-slip shoes. If you have long hair or a beard, cover it up. It is **forbidden** to use gloves.

ALWAYS WEAR PROTECTIVE GOGGLES, EAR PLUGS, AND A RESPIRATOR.

Although the appliance is equipped with three spark arrestors (photo 3 reference 11 and photo 4 reference 3), use protective goggles. Optic, vision-correcting glasses are not enough to protect your eyes. Dust is generated when the appliance is used, therefore a respirator must also always be used, for example, the 3M 6000 series with a silicone body with no less than P1 filters.

WARNING! As the noise level may exceed 85 dB (A), always wear hearing protection and limit your working hours, if necessary. If the noise level is uncomfortable despite the hearing protection, stop using the appliance immediately. Check if the hearing protection is set up properly and in place, and that they attenuate the sound from the appliance sufficiently.

WARNING! Vibrations from the appliance may cause dullness, numbness, tingling sensations, and weaken your grip. Prolonged exposure to the vibrations might cause chronic discomfort. Do not operate the appliance with colder hands than usual, since that will increase the impact of vibrations. Poorly maintained, incorrectly assembled, or misused appliances may create more noise or vibrations than normal. As a result of constant and excessively long physical exertion, hands become tired, and the grip will weaken. Take breaks and relax your hands and neck.

MAKE SURE THAT THE COVERS OF THE GRINDING MACHINE ARE IN THEIR PROPER PLACE AND IN GOOD CONDITION.

Do not operate the appliance without covers or security devices. Set the adjustable spark arrestors close to the grinding machine.

ONLY USE THE POWER CORD FOR THE INTENDED PURPOSE.

When carrying the appliance, do not hold on to the power cord or remove the plug from the socket by pulling on the power cord. Protect the appliance from heat, oil, and sharp edges.

USE OF AN EXTENSION CORD SHOULD BE AVOIDED.

If the use of an extension cord cannot be avoided, make sure that the extension cord and its plug are compatible with the power cord and the plug regarding size, shape, and all other attributes; also make sure that the extension cord is in good shape. Do not use an extension cord with a groove cross-section of less than 2.5mm² or a length of over 20m, otherwise, damage may occur to the engine inside the appliance.

DO NOT REACH WHILE OPERATING THE APPLIANCE.

Always keep your balance as securely as possible.

MAINTAIN THE APPLIANCE REGULARLY.

It is always good to keep the tool clean, this enables a better and safer working experience. Follow the instructions in maintaining and replacing parts. Check the power cord regularly and have the faulty power cord repaired or replaced by an authorized electrician. Also check the extension cord regularly and replace it, if needed.

ALWAYS REMOVE THE PLUG FROM THE OUTLET BEFORE INSTALLING, MAINTAINING, AND REGULATING OR REPLACING PARTS OF THE APPLIANCE, AND ALWAYS DO SO WHEN THE APPLIANCE IS NOT IN USE.

DO NOT LEAVE KEYS OR OTHER TOOLS ON THE APPLIANCE.

Always check if all keys and other means of adjustment have been removed before operating the appliance.

PREVENT THE ACCIDENTAL START-UP OF THE APPLIANCE.

When transporting or moving the device, remove the power cord from the mains power supply.

IF YOU ARE OPERATING THE APPLIANCE OUTSIDE, AN EXTENSION CORD MEANT FOR OUTDOOR CONDITIONS, MARKED APPROPRIATELY, MUST ALSO BE USED.

When using the appliance in outdoor conditions, the electric system must be equipped with leakage current protection.

ALWAYS BE OBSERVANT AND FOCUSED WHEN WORKING.

You must be especially careful and cautious when operating the device. Never operate the device if you are tired, ill, or under the influence of alcohol, medications, drugs, or other substances that might affect your attentiveness and reactiveness.

CHECK IF PARTS OF THE APPLIANCE ARE DAMAGED.

If you notice any damage to the device, its covers, or other parts, do not operate the device before having it inspected by an authorized workshop. Check if the moving parts work flawlessly, their movement is unrestricted and they are overall in good condition. Check all fasteners for parts and other factors that might affect the performance of the appliance. Damaged parts must be repaired or replaced at an authorized workshop, unless the manual states otherwise. Faulty switches must be replaced at an authorized place of maintenance. The appliance must not be used if its starter does not function.

ONLY USE ORIGINAL PARTS AND ACCESSORIES.

Using other kinds of parts might result in dangerous situations.

IN CASE OF THE MECHANICAL FAILURE OF THE APPLIANCE, CONTACT THE MANUFACTURER, OTHERWISE THE OPERATOR OF THE APPLIANCE MAY BE INJURED.

PARTICULAR SAFETY REQUIREMENTS

- Carefully make sure that the grinding machine does not, in any case, touch the power cord of the appliance. If an energised cord is damaged, the metal parts of the appliance may conduct electricity and cause an electric shock.

- FIRE HAZARD DUE TO SPARKS! Sparks are created in metal grinding. Always make sure that operating the appliance does not endanger anyone and that there are no flammable items near the working space. It is recommended that the machine be installed by a fireproof wall to create an environment that reduces risks. If needed, the working area should be limited with 1.5 m high walls of sheet metal or any other non-flammable material in such a way that, at a minimum, the sides of the machine and the back of it are covered.
- Never use a vacuum cleaner or any other vacuum suction device to suck up sparks, flying sparks are extremely hot and pose a high risk of ignition.
- The machine is only meant for metal grinding.
- The appliance may only be used to grind dry surfaces.
- Do not grind materials that contain asbestos. Asbestos is a carcinogen.
- WARNING! TOXIC DUST! Dangerous and toxic dust can be created when grinding metal coated with lead paint or certain other types of metal. This dust will be hazardous to the health of the operator of the appliance and those located in close proximity to the work area. Wear protective goggles and a respirator!
- Always hold the workpiece firmly with two hands, rest your palms on the working table if possible. Always keep your hands at a safe distance from the grinding machine in motion.
- Only process the details you can hold firmly and comfortably (not too large, too little, or too thin). Always use a working table.
- Always keep the slit between the working table and the sanding belt as small as possible (max 2 mm).
- In the event of a dangerous situation, remove the plug from the outlet immediately.
- During work, always make sure that the power cord is pulled away from the backside of the appliance.
- Do not touch the sanding belt when the appliance is in motion.
- Workpieces can be cooled in a container in a harmless place, never let the coolant flow onto the workpiece.
- Turn the appliance on before holding the workpiece against the sanding belt. When you are done grinding, remove the detail from against the sanding belt before turning off the appliance.
- Stand in a firmly balanced position when working.
- If you must discontinue working or are finished, remove the plug from the outlet before personally handling the device (for example, to replace the sanding belt).

- Do not clean the machine with compressed air, use a broom and a vacuum cleaner, since compressed air might emit metal dust to the interior of the electrical installations. The metal dust gathered inside electrical installations might conduct electricity into other metallic parts of the appliance and create the potential for an electric shock. Clean and maintain the device after it has stopped.
- A frayed or worn sanding belt must be replaced immediately.

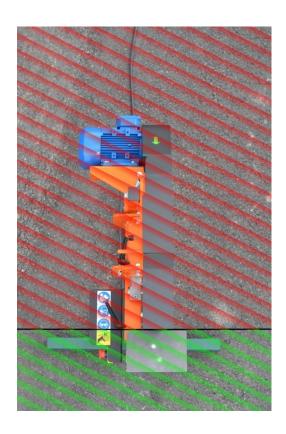
REMAINING THREATS

Despite using the machine tool according to instructions, some hazards will remain.

A moving sanding belt can injure the operator.

There is also the threat of backfire. A moving sanding belt might catch a part, hurl it back at the operator and injure them.

When grinding, the part will heat up and there might be a risk of burns.



Do not enter the area underlined with red, if the machine is connected to power.

TECHNICAL DATA

Supply voltage 400 V \sim 50 Hz Capacity 1500 W The required electrical panel protection 10 A Speed with no load 2890 p/min Sanding belt 50 \times 2000 mm Area being sanded 50 \times 220 mm Weight 68 kg

SUPPLY KIT

- Complete grinding machine with a flat grinding head.
- The foot of the grinding machine.
- Sanding belt.
- 8 mm Allen wrench.
- Manual.

OPTIONAL ACCESSORIES AVAILABLE FOR ORDER

- Mini roller with a working table meant for horizontal grinding.
- Large roller with toothed as well as a smooth rubber cover (Ø 300 mm).
- A long working table for knives $500 \times 150 \times 8$ mm.

FIRST USE.

The belt grinder is meant for efficiently dry-grinding metals in the private and industrial sectors. The appliance may only be used to grind dry surfaces. Choose a sanding belt of an appropriate type and a suitable grain thickness for the surface to be sanded. Grinding efficiency depends on the material, the thickness of the belt's blade, and abrasive materials.



Photo 1. Transport position



Photo 2.

- 1. If damages caused during transport is noticed while unpacking the device, it must be reported to the supplier immediately. The appliance may not be operated!
- 2. Remove the package and utilize it in an environmentally friendly way.

- 3. Install the device onto a flat, stable, and inflammable surface. Lift the grinding machine onto its feet (see photo 2) and remove the transport aids (wooden leg attached to the foot, lashing strap, and cable tie). The machine may be lifted and moved only by holding onto the foot and the thick metal parts, not the starter, the cables, the covers, or the engine's electrical connection box.
- 4. Loosen the bolt (photo 2 reference 1) to the point where you can easily rotate the appliance on the fastening bolt and temporarily remove the bolt (photo 2 reference 2).
- 5. Stand on the belt grinder's feet and lift/rotate the uppermost part of the appliance and the sheet metal protective cover with the emergency stop button, so that it is horizontal. If needed, use extra help (see the red arrow shown in photo 2) and install the bolt (photo 2 reference 2).
- 6. Tighten bolts 1 and 2 shown in photo 2.
- 7. Connect the appliance to the mains power supply, after making sure that the voltage and overload protection meet the needs of the machine.
- 8. Press the green button (photo 3 reference 1) on the starter. If the machine does not turn on, check if the emergency stop button for the appliance (photo 3 reference 2) has been released. If needed, rotate the emergency stop button clockwise (the button will be released). Press the green button on the starter once again.
- 9. Make sure that the engine turns the right way (see the arrow on the engine cover and/or drive wheel), otherwise contact an electrician.
- 10. Turn off the machine (the red button on the starter, see photo 3 reference 3) and disconnect the plug from the mains power supply.
- 11. Install the grinding head in the square opening of the upper frame.
- 12. Install the working table's square in the square opening of the lower frame.
- 13. Install the sanding belt across all four rollers (photo 4) in a way that the arrows' direction on the belt and the drive wheel (photo 4.1) and/or the engine cover (photo 3 reference 8) will coincide. Make sure that the installed belt can move freely without grinding against anything else.

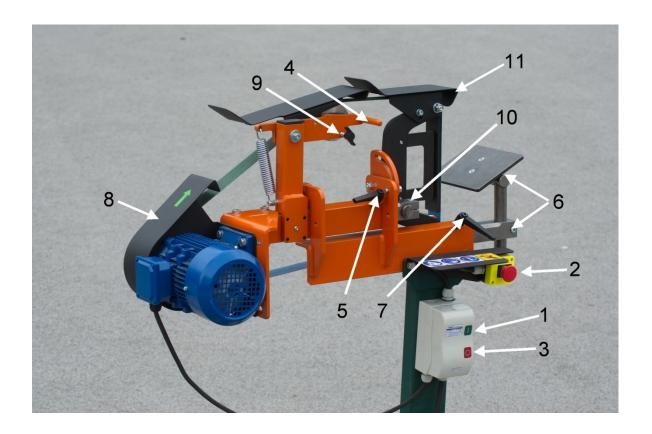


Photo 3.

- 14. Depress the tension roller lever so that it is parallel to the ground or more so, by holding the tension roller lever handle (photo 3 reference 4),
- 15. Hold the tension roller lever in place with your left hand, pull the sanding head towards you so the sanding belt would be tight.
- 16. Lock in the boom of the sanding head using the latch (photo 3 reference 5). If needed, regulate the position of the sanding head by loosening the bolt (photo 3 reference 10).
- 17. Install the working table with the help of bolts (photo 3 reference 6) and the latch (photo 3 reference 7).

Going forwards, it will not be necessary to loosen the latch (photo 3 reference 5) when replacing the belt; loosening the tension roller will suffice, by pressing the tension roller lever handle (photo 3 reference 4).

By loosening the bolts (photo 4 reference 2), it is possible to align the sanding rollers of the head and the sole supporting the sanding belt.

If the sanding belt has the tendency to deviate to the left or right, move it to the desired position with the help of the fine adjustment screw (photo 3 reference 9).

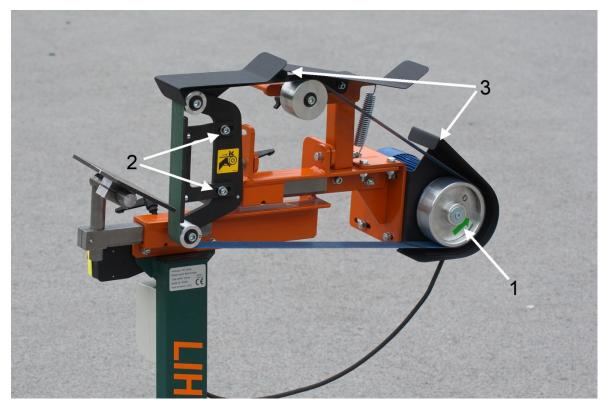


Photo 4.

The appliance can also be used in a horizontal position (photo 6).

Loosen bolt 1 on photo 5, rotate the uppermost part into a horizontal position and tighten the bolt.



Photo 5.



Photo 6. Horizontal position.

USING THE MINI ROLLER'S ADDITIONAL DEVICE

After installing the mini roller's additional device, grasp the belt with your hand, having previously made sure that the belt sander has been removed from the mains power supply, and perform 4-5 fast pulls on the belt in the direction of rotation of the belt, to make sure that the belt ends up in the middle of the roller.

After this, connect the belt sander to the mains power supply, turn the machine on for a second and then off again. If the belt does not end up in the middle of the roller, adjust the tension roller's adjustment screw (photo 3 reference 9). If needed, repeat this action until the belt settles in the middle of the roller.

ATTENTION! The smaller the diameter of the roller, the more elastic the belt chosen for working should be. It should also be noted that the smaller the diameter of the mini roller, the faster it rotates, therefore its bearing life is reduced. When working with a mini roller, try and avoid operating the appliance unnecessarily.

FINDING FAULTS AND REMOVING THEM

The electrical engine does not turn on.

- There is no power supply check the main switch and overload protection.
- Defective switch, electric engine or power cord contact an authorized electrician.
- The emergency stop button has been locked in the OFF-position rotate the button in the direction of the arrows.

The sander belt keeps sliding.

- The tension roller's spring is stretched out replace the spring.
- The tension roller's lever is not under enough pressure force the lever into a horizontal position.

The grinding machine is vibrating excessively.

- A roller is faulty replace the roller.
- The engine shaft is curved replace the engine.
- The bearings are worn replace the bearings.

The belt is being torn.

- The belt is moving in the wrong direction – pay attention to the direction arrow on the sander belt.

In case of other failures, contact the manufacturer.

To utilize the appliance, take it to a scrap metal dealership or ask your local government, where and how it can be utilized.