Translation of the operating instructions for the compressed air manual belt sander

HB 12 S

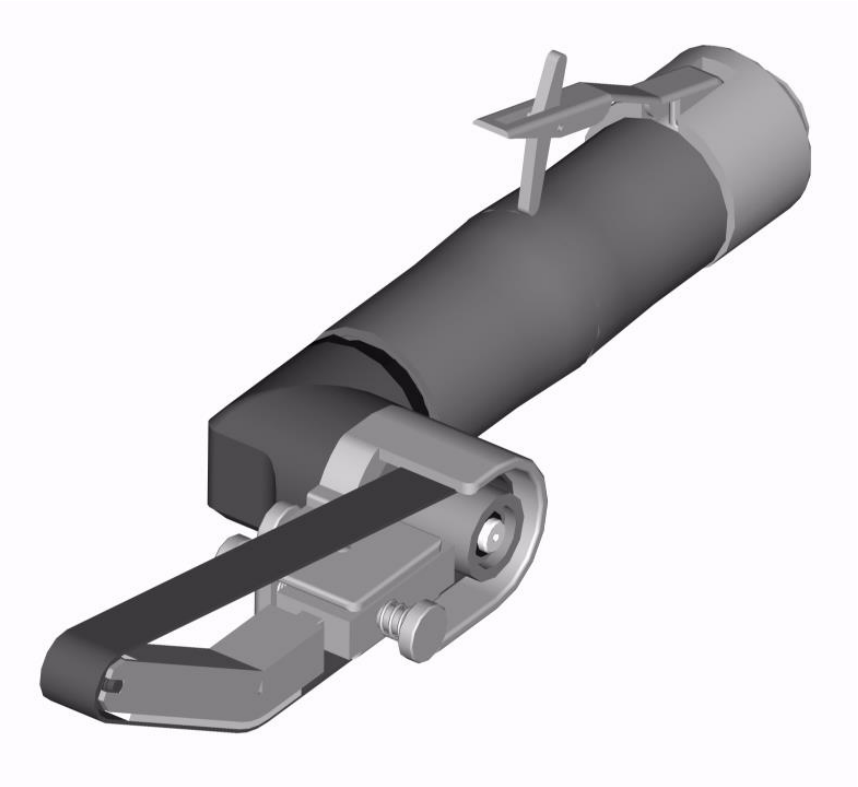
HBH 200

HB 20

HB 15-1

HB 15-12

HB 3



A copy of this manual must be given to all personnel working with this tool.

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BIAX Professional Power

001580313 – V12.2021

Technical data

Name / Type	Operating pressure bar	Air consumption l/min	Connection thread	Recommended hose width mm	Power watt	Idle speed rpm	Belt speed m/s	Vibration m/s²		Sound pressure level dB(A)	Sound power level dB(A)	Peak sound pressure level dB(C)	Weight kg
HB 12 S 150123105	6	550	R1/8”	7	250	20,000	30	< 2.5	K=0.05	L_{pA} = 73	L_{WA} = 84	L_{pCpeak} = 89.9	1.5
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	
HB 15-1 150123645	6	500	R1/8”	7	250	20,000	20	< 2.5	K=0.5	L_{pA} = 75	L_{WA} = 86	L_{pCpeak} = 93.4	1.0
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	
HB 15-12 150123642	6	500	R1/8”	7	300	20,000	20	< 2.5	K=0.5	L_{pA} = 78	L_{WA} = 89	L_{pCpeak} = 98	1.0
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	
HBH 200 150123770	6	550	R1/8”	7	300	20,000	45	< 2.5	K=0.24	L_{pA} = 79	L_{WA} = 90	L_{pCpeak} = 96.3	1.0
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	
HB 20 150122602	6	500	R1/8”	7	230	20,000	45	< 2.5	K=0.16	L_{pA} = 78	L_{WA} = 89	L_{pCpeak} = 98.8	1.5
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	
HB 3 150122200	6	300	R1/8”	5.5	150	28000	30	< 2.5	K=0.24	L_{pA} = 73	L_{WA} = 84	L_{pCpeak} = 89	0.5
										K_{pA} = 3	K_{WA} = 3	K_{pCpeak} = 3	

General notes

This operating manual is a component part of the scope of delivery. It must be kept the vicinity of the appliance and be handed over with the equipment in the event of resale.

We reserve the right to make technical modifications to the unit described in this operating manual within the scope of product improvements.

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Copyright is property of the manufacturer.
This operating manual is not subject to a revision service.

Obligations of the proprietor

The proprietor must observe the applicable national accident prevention regulations and technical regulations.

The proprietor must ensure that the appliance is only operated by trained, responsible personnel.

The proprietor must ensure that operators have read and understood the operating manual before they use the appliance.

The proprietor must ensure that unauthorised persons are denied access to the appliance.

In-house health and safety regulations must be observed.

Intended use

The BIAX compressed air manual belt sander is used for

- surface
- form
- and contour sanding

of different materials (metals, wood and glass fibre reinforced plastics).

Any use of the BIAX compressed air manual belt sander outside the above-mentioned areas of application, as well as structural modification of the sander, is not permitted without the consent of Schmid & Wezel. In case of violation, any liability for consequential damage shall be excluded.

Before starting work, ensure that the appropriate sanding belt is correctly tensioned. Then actuate the valve and bring the running manual belt sander into operation.

The BIAX compressed air manual belt sander is only allowed to be operated with suitable sanding belts and sanding arms (see catalogue).

The specified speeds and clamping lengths must be observed.

Observe DIN 69170 and the corresponding manufacturer's instructions.

Safety

Safety labels

The following key words are used in conjunction with the safety labels throughout this document to indicate potential hazards:



Danger!
High risk of fatal or severe injury and considerable property damage if the corresponding safety precautions are not taken.



Warning!
Risk of fatal or severe injury and considerable property damage if the corresponding safety precautions are not taken.



Caution!
Risk of minor injury if the corresponding safety precautions are not.



Attention!
Risk of damage to property if the corresponding safety precautions are not taken.

Safety instructions



The noise level specified can be exceeded during some working processes.
Wear ear protection.



Always wear respiratory protection when performing work which produces dust and switch on the dust extraction system at the work location.



Sparks or chippings can be produced during sanding which could injure the eyes. Always wear protective goggles while completing the work.

Health

Dusts from materials with a lead-content coating, some types of wood, minerals and metals can represent a health hazard. Touching or inhaling dusts can be the cause of allergic reactions and/or respiratory disorders to the user or persons in the vicinity. Certain dust, such as that from oak or beech, are considered carcinogenic, particularly in combination with additives used in treating wood (chromate wood preservatives). Material containing asbestos may only be processed by specialists.

Always wear close-fitting clothes when completing the work. Remove all jewellery before starting work. Always wear a hair net if you have long hair.

Avoid contact with power sources. The sander is not insulated against contact with live parts.

Do not reach into the running belt. Cutting and abrasion hazard.

Handling the manual belt sander

Before starting work, and after each interruption, check the machine for damage and wear.
Clean the machine after use, make sure the telescopic clamping device can still move freely.

Proper functioning of the appliance is only guaranteed if the oil mist lubricator is checked at regular intervals, the condensation water is removed and resin and acid-free oil (special accessory) is topped up.

Complete a 30-second test run before starting to use the sander.

Always disconnect the machine from the compressed air supply during belt changes and maintenance work.

The flow pressure of 6 bar must never be exceeded during operation.

If the air supply is interrupted, switch off the machine immediately.

In the case of manual belt sanders with a grease nipple in the angle head, the gear unit should be lightly greased with special grease after approx. 40 hours of operation (2 – 3 strokes with a grease gun).

The sander runs on after being switched off.
Only set the unit down after it has come to a stop.

Secure the workpiece in a clamping device or a vice.

Note that compressed air stored in the hose can cause the sander to start unexpectedly.
Only use the sander with an undamaged hose. Check the components, mains cable and connections for damage before starting work.

If the sander has fallen down, it must be checked for possible damage.

Conduct at the workplace

Keep your place of work tidy.

Sparks are generated during sanding. Remove any combustible objects and materials.

Be aware of the danger of a whipping compressed air hose.

Always concentrate on the job at hand and keep others away from the work area.

Keep your tools in a safe, secure place and maintain them carefully.

Repair work may only be carried out by specialist personnel.

Use a vacuum cleaner if possible.

Ensure good ventilation at the workplace.

It is recommended to wear a respirator mask complying with filter grade P2.

Connection and start-up

Connection of the manual belt sander



Warning!
Do not connect the hose unit to the compressed air supply until it has been connected to the machine.



Warning!
Only connect to the pressure supply when the sanding belt is tensioned and the valve is switched off.

Operate the BIAX compressed air manual belt sander only with clean, water-free air. To do this, connect the appliance to an oil mist lubricator with a water separator. The oil mist lubricator should be installed as near as possible to the sander.

- Blow through the pressure hose before connection to remove impurities.
- Mount the oil mist lubricator in the following order: Water separator – pressure gauge – oil mist unit.
- Connect the compressed air manual belt sander (A) with a hose unit (B) and, if necessary, with a silencer via a one-hand coupling (C) to the oil mist lubricator (D). (see Fig. 1)
- Set an operating pressure of max. 6.3 bar at the oil mist lubricator. Check the oil level and top up oil if necessary.
- Adjust the oil mist lubricator to add 2 – 3 drops of oil per minute to the air.

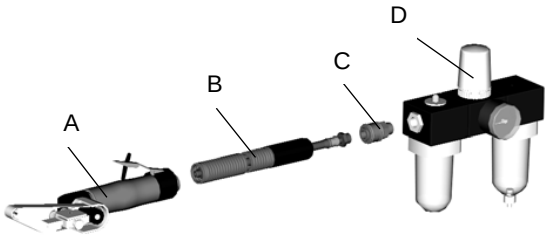


Fig. 1: Hose connection

Handling

Switching On and Off

Unlock the lever valve (F) and push the valve lever (E) (see Fig. 2).

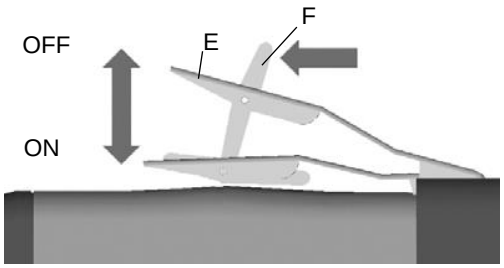


Fig. 2: Unlocking lever valve

When the work is finished, release the valve lever (E).

Sanding arm mounting



Warning!
Disconnect the appliance from the compressed air supply prior to changing the sanding arm.

Only sanding arms belonging to the respective machine type are allowed to be mounted.

HB 12 S / HB 15-12

For these types, the sanding arms are available in 2 widths and various shapes.
Please note the following points before mounting:

- With the HB 12 S, make sure that the spring is located between the clamping arm (H) and the sanding arm. A washer must be located under the knurled screw (L) (see Fig. 3).
- With the HB 15-12, make sure that the spring is seated in the sanding arm holder. The DUBO washer must be seated between the sanding arm and the cap screw (Q) (see Fig. 9).

HBH 200

With this type, the sanding arms are available in 3 widths and various shapes.
Before mounting, please note the following point:

- With the HBH 200, make sure that the spring and the set screw are seated in the sanding arm holder sleeve (see Fig. 6).

HB 20

With the HB 20, the sanding arm is firmly connected to the machine. It is therefore not possible to change the sanding arm.

HB 3

With this type, the sanding arms are available in 3 widths and various shapes.
Before mounting, please note the following point:

- The guide sleeves (X) must be seated in the groove.
- The guide pin (Z) must be seated in the guide.
- The compression spring (Y) must be seated between the guide sleeve (X) and the sanding arm (G) (see Fig. 7).

Belt change and sanding arm adjustment



Warning!
Disconnect the appliance from the compressed air supply prior to changing the belt.



Warning!
Do not leave any tool keys inserted. Before starting work, inspect the cutter to ensure that all spanners and wrenches have been removed.

Only use type-specific sanding belts with a width that matches the sanding arm. When inserting the new sanding belt, pay attention to the running direction marked with an arrow on the inside of the belt. Incorrect insertion results in premature wear.

HB 12 S

Fold the protective cap away to the side. Press the tensioning arm (H) against the housing and remove the slackened sanding belt via the sanding arm roller (I) (see Fig. 4).

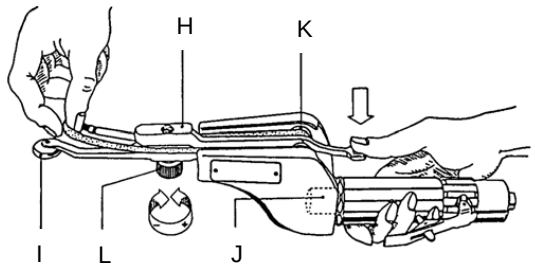


Fig. 3: Belt change HB 12 S

During assembly, place the sanding belt around the drive roller (J) and over the deflection rollers (K). Tighten the sanding belt with one finger, press the tensioning arm (H) against the housing, pull the sanding belt over the sanding arm roller (I) and release the tensioning arm (H). After changing the sanding belt, close the protective cap again.
Test run – adjust the belt position during the run by turning the knurled screw (L).

HBH 200

Slightly loosen nut (T) and screw (S), then push the sanding arm backwards. Secure again with the screw (S). After inserting the sanding belt, loosen the screw (S) slightly so that the sanding belt is tensioned. Lock this position with the nut (T). With the machine running, adjust the belt run with screw (U) and lock the setting with screw (V) (see Fig. 6).

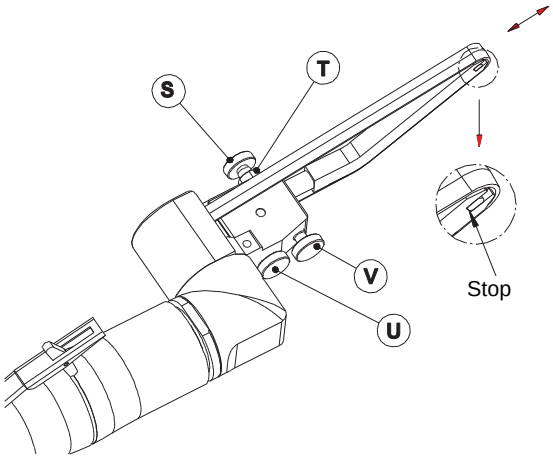


Fig. 4: Belt change HBH 200

ATTENTION:
If the sanding belt breaks, the deflection roller of the sanding arm can move in the groove. When the machine is next put into operation, it must be ensured that the deflection roller is pressed in as far as the stop in the sanding arm (see Fig. 10, cut-out stop).

HB 15-1 / HB 20

Press the telescopic sanding arm against the drive roller (M) from the front and remove the sanding belt by hand via the drive roller (M) (see Fig. 4).

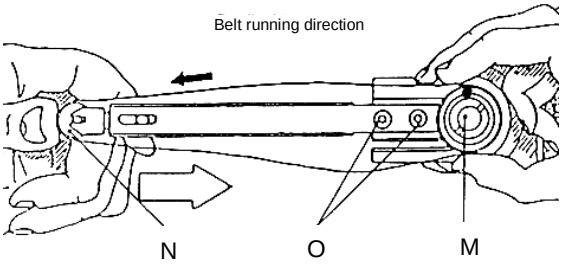


Fig. 5: Belt change HB 15-1 / HB 20

During assembly, place the sanding belt around the sanding arm roller (N), press the sanding arm together and place the sanding belt over the drive roller (M) (see Fig. 4).

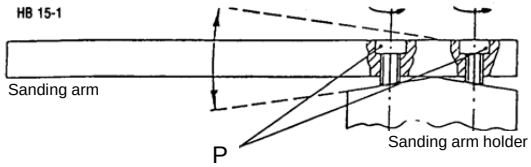


Fig. 6: Adjusting the belt run HB 15-1

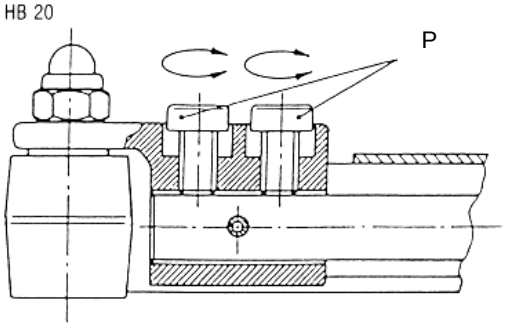


Fig. 7: Adjusting the belt run HB 20

Test run – adjust the belt run using the two cap screws (P). Depending on the belt run, loosen the corresponding screw and tighten the second screw (see Fig. 5).

HB 15-12

Loosen the belt tension by turning the knurled screw (Q) and remove the sanding belt by hand. Assembly in reverse order. Do not overtension the sanding belt (see Fig. 8).

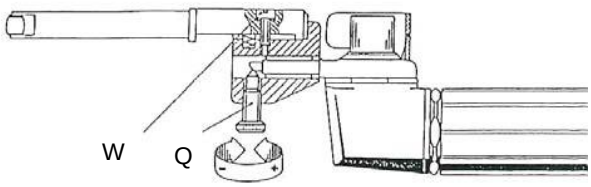


Fig. 8: Adjusting the belt run HB 15-12

Test run – adjust the belt position during the run by turning the cap screw (W).

HB 3

Press the sanding arm (G) back. Press and hold the locking button (R). Release the sanding arm (G). Now, after the locking button (R) is released, the sanding arm should remain in the rear position. Put on the sanding belt. Briefly press the sanding arm (G) back and release it. The sanding belt is tensioned.
Test run – adjust the belt position during the run by turning the knurled screw (Q) (see Fig. 7).

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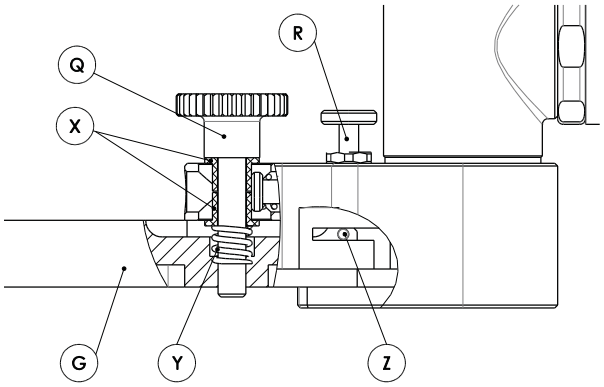


Fig. 9: Belt change HB 3

Adjusting the handle (HB 3 only)



The handle with the lever valve can be turned as required for better handling.

Carefully clamp the belt sander at the angle head in the vice. Loosen lock nut (3) and turn valve (1) by max. 180°. Tighten the lock nut again (see Fig. 8).

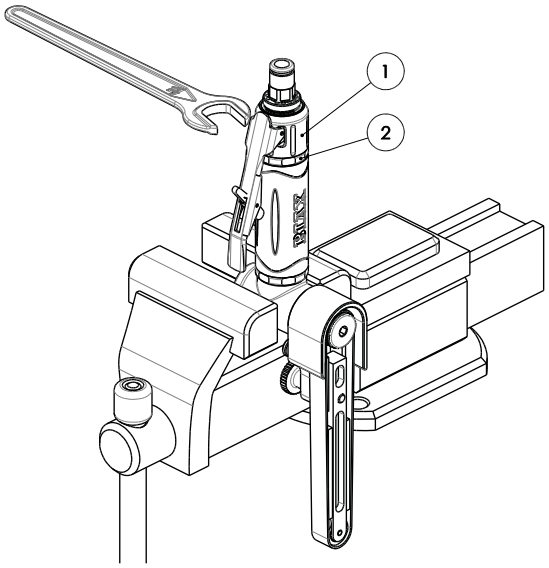


Fig. 10: Adjusting the handle HB 3

Working with the belt sander

- Correctly tension a suitable sanding belt
- Actuate valve and bring running machine into operation
- Surface sanding only with belt support
- Radii only with roller support
- Sanding arm with telescopic clamping, only with low contact pressure

Maintenance

Oil mist lubricator

To ensure proper functioning of the BIAX compressed air manual belt sander, the oil mist lubricator should be checked at regular intervals. Remove any condensation and top up with BIAX special oil if necessary. This prevents damage to ball bearings, motor parts and the rotor caused by dirt or rust particles.

To do this

- remove the condensation and
- check the operating pressure (max. 6 bar) at regular intervals.

Checking the idle speed

The idle speed of the sander must be checked every 20 hours of operation. Use a tachometer for this purpose.

At an operating pressure of 6 bar, the nominal speed must not be exceeded without a sanding tool.

Repair



Warning!
Repairs are only allowed to be carried out by specialist personnel. Our Service department is available to you for this. Only use original spare parts.

In the case of deteriorating performance, the sander must be disassembled and cleaned. It is essential to replace worn rotor blades.

Contact your nearest authorised service centre or our head office directly.

We can send the appropriate spare parts lists to the specialist service centres.

Accessories

The delivery includes the manual belt sander and a key for adjusting the sanding arm.

Special accessories

Compressed air fittings, one-hand couplings with male thread or hose connection, filter pressure reducers, silencers, hose balancers, hose units, collets, spiral hoses and workbench equipment can be found in our catalogue.