

# **Instruction Manual**

# Belt Sander

BS-C 10 PRO VS

BS-C 20 PRO VS

\_ BS-C 10 PRO 15 VS

BS-C 20 PRO 15 VS





BS-C 20 PRO 15 VS



## **Imprint**

#### **Product identification**

 Belt sander
 Item number

 BS-C 10 PRO VS
 2403770

 BS-C 20 PRO VS
 2403780

 BS-C 10 PRO 15 VS
 2403730

 BS-C 20 PRO 15 VS
 2403740

#### Manufacturer

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#### Information on the operating instructions

Original operating instructions according DIN EN ISO 20607:2019

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#### Copyright information

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Technical changes and errors excepted.

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#### 1 Introduction

You have made a good choice by purchasing the AIR-CRAFT belt grinder.

Read the operating instructions carefully before using the belt grinder.

These are an important part and must be kept near the belt grinder and accessible to every user.

## 1.1 Copyright

The contents of these instructions are protected by copyright and are the sole property of Stürmer Maschinen GmbH.

Their use is permitted within the scope of using the belt grinder. Any other use is not permitted without the written consent of the manufacturer.

Passing on and copying of this document, exploitation and communication of its contents are prohibited unless expressly permitted.

Violations will result in liability for damages.

We register trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We emphatically oppose any infringement of our intellectual property.

#### 1.2 Customer Service

Our customer service is available for technical information.

#### Austria:

AIRCRAFT Kompressorenbau und Maschinenhandel

Gewerbestraße Ost 6 A-4921 Hohenzell

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#### Germany:

Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt

#### **Repair Service:**

Fax: 0049 (0) 951 96555-111

E-Mail: service@stuermer-maschinen.de

#### Ordering spare parts:

Fax: 0049 (0) 951 96555-119

E-Mail: ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences which result from the application and which can be valuable for the improvement of our products.

#### 1.3 Limitation of liability

All information and notes in the operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

In the following cases the manufacturer does not accept any liability for damage:

- Non-observance of the operating instructions,
- Use not in accordance with the intended purpose,
- Use of inexperienced personnel,
- Unauthorized modifications,
- Technical changes,
- Use of non-approved spare parts.

The actual scope of delivery may deviate from the explanations and illustrations described here in the case of special versions, if additional ordering options are taken up or due to the latest technical changes.

The obligations agreed in the supply contract, the general terms and conditions of business as well as the manufacturer's terms and conditions of supply and the legal regulations valid at the time of conclusion of the contract shall apply.

## 2 Safety

#### **Safety Instructions**

Safety instructions are identified by symbols in this operating manual. The safety instructions are introduced by signal words which express the extent of the danger.

#### 2.1 Personal protective equipment

The purpose of personal protective equipment is to protect people from adverse effects on safety and health at work. The personnel must wear personal protective equipment during the various work on and with the device, which is separately indicated in the individual sections of this manual.

Personal protective equipment is explained in the following section:



#### Suitable protective gloves

The protective gloves protect the hands from sharpedged components as well as from friction, abrasions or deeper injuries.





#### Safety goggles

The safety goggles are used to protect the eyes from flying parts.



#### **Protective clothing**

Protective work clothing is tight-fitting clothing with low tear resistance.

## 3 General Safety Instructions



#### DANGER!

Before using, servicing or repairing the tool, the operating and maintenance instructions must be read carefully. Only persons who are fully familiar with the handling and operation of the tool are permitted to handle and work with the tool. The tool may only be operated by qualified personnel.



#### NOTE!

Repairs, maintenance and upgrades may only be carried out by qualified personnel with the tool switched off (disconnect from air supply!)!

- -Read and understand the safety instructions before operating the device!
- -Do not modify the tool. Modifications may reduce the effectiveness of safety measures and increase the risks to the operator.
- Never place your hands near moving parts when working with the tool!
- Use any safety devices that may be present and fasten them securely. Never work without guards and keep them in working order. Check their functionality before starting work.
- Always keep the tool and its working environment clean. Ensure sufficient lighting.
- Watch out for slippery surfaces and tripping hazards that can be caused by the compressed air hose.
- The tool must not be modified in its design and must not be used for purposes other than those intended by the manufacturer.
- Never work under the influence of concentration disorders, drugs, alcohol or medication. Do not work in an overtired state.
- After assembly or repair, remove tool keys and other loose parts from the tool before switching it on.
- Observe all safety and danger instructions on the tool and keep it in a perfectly legible condition.
- Keep children and persons not familiar with the tool away from the working environment of the tool.

- The tool may only be used, equipped and maintained by persons who are familiar with it and have been informed about the dangers.
- Wear close-fitting work clothing, safety glasses, safety gloves, hearing protection and respiratory protection.
- Immediately rectify any faults that impair safety.
- -The tool is not intended for use in hazardous areas and is not insulated against contact with electrical energy.
- Protect the tool from moisture (risk of corrosion!).
- Keep the handles dry, clean and free of oil and grease.
- Never carry the tool by the hose. Always hold the tool only by the ergonomic handle with which it is equipped.
- Do not leave the tool unattended while it is under pressure
- Before each use of the tool make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid sources of danger!
- Never use the tool in the vicinity of flammable liquids and gases (danger of explosion due to flying sparks!).
- Do not overload the tool! You will work better and safer in the specified performance range.
- Only use original spare parts and accessories to avoid possible hazards and risks of accidents.

# 3.1 Special safety instructions for pneumatic tools

- Operate the tool only at the permissible operating pressure
- -Use only accessories and consumables in the sizes and types recommended by the tool manufacturer.
- Only use compressed air as the energy source and no foreign gases which are provided in pressure containers (e.g. gas cylinders).
- During use, make sure that you hold the tool securely and firmly in your hand and that it is properly balanced to prevent damage or injury.
- Disconnect the unit from the air source whenever you perform repairs or change accessories.
- Check for any damage before use. Check for damaged or loose hoses and fittings.
- After use, the tool must be disconnected from the compressed air supply and then cleaned.
- Operate and maintain the tool as recommended in the operating instructions to avoid an unnecessary increase in the vibration level.
- The compressed air connection may only be made via a quick release coupling.
- Make sure that all connections are firmly and securely connected.
- Under no circumstances may the tool be directed against persons or animals. Compressed air can cause serious injuries.



- -Do not touch abrasive materials while the tool is in operation; these can cause abrasions or cuts.
- The tool must be disconnected from the compressed air supply before you hand the tool over to other persons, carry out maintenance work or replace defective parts.
- The max. pressure (see chapter: "Technical Data") must not be exceeded and must be adjusted via a filter pressure regulator on the compressed air supply.
- Secure and clamp the workpiece to be machined against slipping.

## 3.2 Safety data sheets

Safety data sheets on hazardous goods can be obtained from your specialist dealer or by calling +49 (0)951/96555-0. Specialist dealers can find safety data sheets in the download area of the partner portal.

#### 4 Intended Use

The compressed air-driven belt grinder is designed for use by craftsmen. It is used for grinding, deburring and derusting.

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

#### 4.1 Reasonably foreseeable misuse

Any use beyond the intended use or any other use is considered misuse.

#### Possible misuses can be:

- Installation of spare parts and use of accessories and equipment not approved by the manufacturer.
- Use of the belt sander outside the performance limits specified in the chapter "Technical data".
- Use of the belt sander in areas where there are aggressive or flammable substances in the air (the belt sander is not explosion-proof as standard and is not insulated against contact with electrical energy).
- Failure to observe signs of wear and damage.
- Use of the belt sander in the commercial sector.

#### 4.2 Residual risks

Even if all safety instructions are observed and the tool is used according to the instructions, there are still residual risks, which are listed below:

- Risk of injury from flying parts.
- Risk of injury to the upper limbs from rotating parts.
- Risk of injury from rotating machine parts when pulling in long hair, loose clothing or jewellery.
- Hearing damage due to noise
- (Wear ear protection!).
- Health hazard to the respiratory tract from grinding dust (wear respiratory protection!).
- Risk of injury due to breakage or cracking of the abrasive.

## 5 Technical Data

Model	BS-C 10 PRO VS	BS-C 20 PRO VS
Length	325 mm	396 mm
Width/Depth	85 mm	85 mm
Height	95 mm	95 mm
Weight	0,77 kg	0,96 kg
Average air requirement approx.	400 l/min	400 l/min
Maximum air requirement	520 l/min	520 l/min
Working pressure	6 bar	6 bar
Inlet pressure max.	8 bar	8 bar
Connection thread	1/4"	1/4"
Vibration	2,5 m/s <sup>2</sup>	2,5 m/s <sup>2</sup>
Noise level	88 dB(A)	88 dB(A)
Sound pressure level Lp	80 dB(A)	80 dB(A)
Sound power level Lw	91 dB(A)	91 dB(A)
Sanding belt L x B	330 x 10 mm	520 x 20 mm
Idle speed	18000 min <sup>-1</sup>	18000 min <sup>-1</sup>

Model	BS-C 10 PRO 15 VS	BS-C 20 PRO 15 VS
Length	320 mm	390 mm
Width/Depth	85 mm	85 mm
Height	95 mm	95 mm
Weight	0,77 kg	0,96 kg
Average air requirement approx.	400 l/min	400 l/min
Maximum air requirement	520 l/min	520 l/min
Working pressure	6 bar	6 bar
Inlet pressure max.	8 bar	8 bar
Connection thread	1/4"	1/4"
Vibration	2,5 m/s <sup>2</sup>	2,5 m/s <sup>2</sup>
Noise level	88 dB(A)	88 dB(A)
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Sound power level Lw	91 dB(A)	91 dB(A)
Sanding belt L x B	330 x 10 mm	520 x 20 mm
Idle speed	18000 min <sup>-1</sup>	18000 min <sup>-1</sup>



#### 5.1 Type plate

## **Bandscheifer**

CE

Belt sander

BS-C 10 PRO 15 VS

Item no.

Type

2403730

Serial no.

Year of manufacture



Aircraft Kompressorenbau GmbH Gewerbestr. Ost 6 4921 Hohenzell Österreich / Austria

Fig. 1: Type plate BS-C 10 PRO 15 VS

## 6 Operating elements

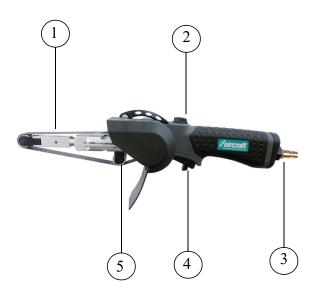


Fig. 2: Description BS-C 10 PRO 15 VS

- 1 Grinding belt
- 2 Speed controllers
- 3 Compressed air connection
- 4 Operating lever
- 5 Tensioner pulley

## 6.1 Scope of delivery

- One sanding belt each K40 / K60 / K80
- Plug nipple brass with external thread  $1\!\!4\text{"}$

## 7 Operation

### 7.1 Commissioning



#### Wear protective goggles!



#### DANGER!

When adjusting or installing accessories, always disconnect the tool from the air supply. Do not use damaged or frayed abrasive belts.



#### DANGER!

Before first use, it is essential to fill a few drops of Aircraft Special Compressed Air Oil into the air connection of the tool, so that good lubrication is immediately available.



#### NOTE!

Drain water from the air compressor tank and condensation from the air lines.



#### NOTE!

Always use clean, dry air with a maximum air pressure of 90 PSI (6.2 bar). Dust, corrosive vapors and/or excessive moisture can destroy the internal components of the air tool.

#### 7.2 Using the pneumatic tool



#### DANGER!

Bevor Sie das Werkzeug starten, überprüfen Sie immer, ob Sie das Schleifband richtig eingestellt haben.

- Step 1: Set the desired working pressure (90 PSI {6.2 bar) on the compressor. Make sure that the maximum pressure (see chapter "Technical Data") is not exceeded.
- Step 2: Connect the belt grinder to a suitable compressed air source. Connect the tool with a flexible compressed air hose that has a quick coupling. Press the compressed air connection of the belt grinder into the quick coupling. The locking is automatic.



Step 3: Unlock the safety lever while keeping the operating lever pressed. Keep the operating lever pressed during the starting process.

Step 4: To stop the tool, release the operating lever. The tool will stop within 3 seconds of releasing the control lever.

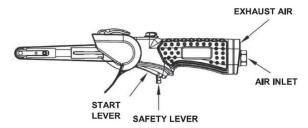


Fig. 3: Operation of the pneumatic tool

Step 5: To release the lock, the belt grinder must be pressed against the compressed air hose and the coupling sleeve of the quick-release coupling must be pulled back. Hold the compressed air hose and belt grinder firmly in your hand to prevent them from being pushed away!

## 7.3 Swivelling the grinding arm

To adjust the swivel arm with the handle, release the lock, adjust the swivel arm up or down so that it is suitable for the grinding work area.

After swivelling the grinding arm, secure the locking device and make sure that the grinding arm is securely fixed at the working angle.

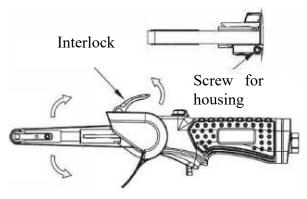


Fig. 4: Swivelling the grinding arm

## 7.4 Alignment of the grinding belt

If the abrasive belt moves laterally on the front roller during operation, restore the abrasive belt alignment by loosening the swivel arm screw and turning the roller adjustment screw.

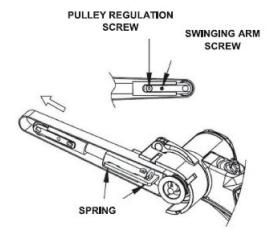


Fig. 5: Alignment of the grinding belt

## 7.5 Speed controller

The speed of the grinding machine can be adjusted via the speed regulator on the handle.

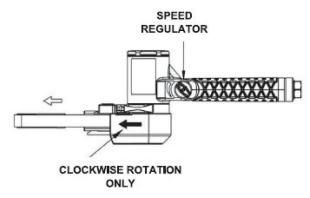


Fig. 6: Speed controller



#### NOTE!

The grinding belt of the belt grinder can only turn clockwise.



## 8 Care, maintenance and repair



#### **DANGER!**

Disconnect the tool from the compressed air supply before all maintenance, servicing and cleaning tasks.



#### DANGER!

All work may only be carried out by qualified personnel who have been trained for this purpose and are familiar with the associated risks.

All plastic parts and painted surfaces should be cleaned with a soft, damp cloth and a little neutral cleaner.

After maintenance, repair and cleaning work, check that all panels and protective devices are properly reinstalled.

#### 8.1 Care after end of work



Wear suitable protective gloves!



#### NOTE!

Never use harsh cleaning agents for any cleaning work. This can lead to damage or destruction of the device.

- 1. Keep the tool clean and dry
- 2. check air hoses for damage and leaks at regular intervals. The damaged hoses must be replaced.
- 3. check the compressed air maintenance unit at regular intervals Top up oil if necessary. Clean dirt from the tool weekly. Regular cleaning makes it easier to work with the pneumatic tool.
- 4. regularly check the screw connections for a firm and tight fit. Retighten them if necessary.
- 5. the worn drive rollers cause the grinding belt to run unevenly. Replace rollers if necessary.

## 8.2 Maintenance and repair

Maintenance and repair work may only be carried out by qualified personnel with the machine switched off.

If the machine does not function properly, contact a specialist dealer or our customer service department. The contact details can be found in chapter 1.2 Customer service. All protective and safety devices must be reinstalled immediately after repair and maintenance work has been completed.

In order not to impair the service life of the tool, it must be adequately oiled. This can be done by the following measures:

- by a maintenance unit with oiler on the compressor.
- by an oiler, which is installed directly in the compressed air line,
- Add approx. 3 to 5 drops of pneumatic oil to the compressed air connection for 15 minutes each in continuous operation.

#### 8.2.1 Manual lubrication of the air motor

Pneumatic tools must be lubricated regularly throughout their service life. The air motor and bearing use compressed air to drive the tool. Since moisture in the compressed air will cause the air motor to rust, you must lubricate the motor daily. An inline oiler is recommended.

Step 1: Disconnect the air tool from the compressed air supply and press the trigger a few times to allow any air remaining in the tool to escape.

Step 2: Hold the tool so that the air inlet is facing up.

Press the trigger and pour 1 to 2 drops of air tool oil into the air inlet.

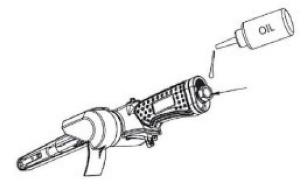


Fig. 7: Lubricating the air motor

Step 3: Connect the unit to an air source, cover the air outlet with a towel and start the tool for a few seconds.





#### NOTE!

Do not lubricate tools with flammable or liquids such as kerosene, diesel or fuel.



#### NOTE!

Excess oil in the engine is immediately expelled from the exhaust port. Always point the exhaust port away from people or objects.

## 8.3 Change grinding belt

- Step 1: Disconnect the air tool from the compressed air supply and press the trigger a few times to allow any air remaining in the tool to escape.
- Step 2: Remove the belt sander housing.
- Step 3: Push the end of the grinding arm backwards until it locks into place.
- Step 4: Remove the old abrasive belt or replace it with a new one.
- Step 5: Press the lever of the grinding arm to restore the tension of the grinding belt.

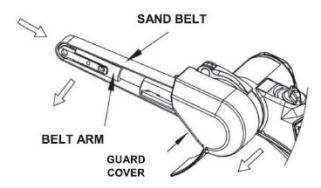


Fig. 8: Change grinding belt

- Step 6: Move the grinding belt by hand and make sure that it rotates freely.
- Step 7: Check that the grinding belt has been installed correctly, close the housing and start the grinding machine.

# 9 Disposal, recycling of old equipment

In the interest of the environment, it must be ensured that all components of the device are disposed of only through the designated and approved channels.

#### 9.1 Decommission

Discarded devices must be taken out of service immediately in a professional manner in order to avoid later misuse and danger to the environment or persons.

- Step 1: Remove all environmentally hazardous operating materials from the old unit.
- Step 2: If necessary, dismantle the machine into manageable and recyclable assemblies and components.
- Step 3: Dispose of the machine components and operating materials according to the intended disposal routes.

#### 9.2 Disposal of lubricants

The lubricant manufacturer provides the disposal instructions for the lubricants used. If necessary, ask for the product-specific data sheets.

## 10 Claims for liability

For our products we grant claims within the scope of the statutory liability for defects.

Damage that has occurred to the product will be remedied free of charge by replacement delivery or repair. The handling of liability claims is carried out at the discretion of AIRCRAFT or via one of its dealers. A prerequisite is the submission of a machine-generated original sales receipt, in which the date of purchase and the product type must be evident.

Excluded from the liability claims are defects that have arisen due to improper use, overloading or incorrect operation or disregard of the operating instructions. The same applies to negligent or incorrect handling and use of unsuitable equipment, as well as unauthorized modifications and repairs. Also not subject to liability are parts that are subject to normal and proper wear and tear, as well as damage caused by normal wear and tear and transport damage.

In the event of a defect or in case of repairs, please contact your dealer.



## 11 Troubleshooting

Fault	Possible causes or remedies
No function despite operation of the operating lever	- The actuating valve is defective, replace it.
	- There is no connection to the compressed air source.
	- Check that all valves are open.
	- Check all air supply connections
Smooth running of the grinding belt	- The drive rollers are worn out and must be replaced.
Runs slowly or has no power	- Air pressure too low, adjust air pressure.
Ball bearing noises	- Replace ball bearing.
Air loss at housing	- Various error possibilities; disassemble, clean and replace defective parts.
Grinding performance decreases	- Abrasive belt worn out; replace with a new one.



## 12 Spare parts



#### DANGER!

## Risk of injury through the use of incorrect spare parts!

The use of incorrect or faulty spare parts can lead to dangers for the operator and cause damage and malfunctions.

- Only original spare parts from the manufacturer or spare parts approved by the manufacturer must be used.
- In case of any uncertainties, always contact the manufacturer.



#### Tips and recommendations

The manufacturer's warranty is void if non-approved spare parts are used.

## 12.1 Ordering spare parts

The spare parts can be obtained from the specialist dealer.

Specify the following key data when ordering spare parts:

- Device type
- Item number
- Position number
- Year of manufacture
- Quantity
- desired mode of dispatch (mail, freight, sea, air, express)
- Shipping address

Spare parts orders without the above information cannot be considered. In the absence of information on the mode of dispatch, dispatch will be at the discretion of the supplier.

Information on the device type, item number and year of manufacture can be found on the type plate attached to the device.

#### Example

The bearing for the Belt sander BS-C 10 PRO VS must be ordered. The bearing has the number 15 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (bearing) and marked position number (15) to the dealer or spare parts department and provide the following information:

- Type of device: Belt sander BS-C 10 PRO VS

Item number: 2403770Spare parts drawing: 1Position number: 15

#### The item number of your device:

BS-C 10 PRO VS	2403770
BS-C 20 PRO VS	2403780
BS-C 10 PRO 15 VS	2403730
BS-C 20 PRO 15 VS	2403740



## 12.2 Spare parts drawing

The following drawings should help you to identify necessary spare parts in case of service. If necessary, send a copy of the parts drawing with the marked components to your authorized dealer.

## 12.2.1 Spare parts drawing BS-C 10 PRO VS

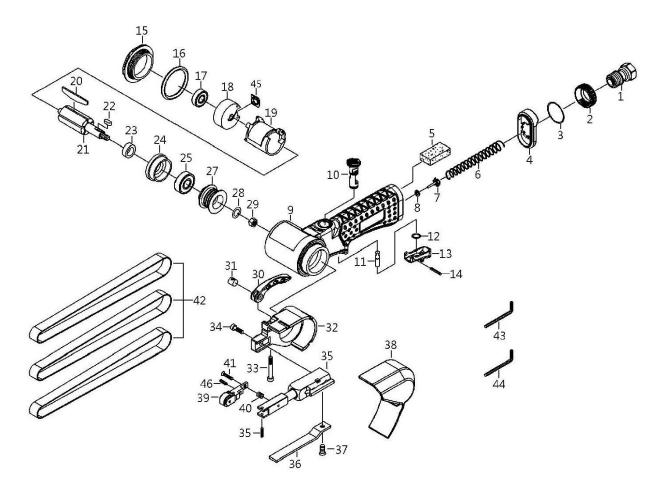


Fig. 9: Spare parts drawing BS-C 10 PRO VS



## 12.2.2 Spare parts drawing BS-C 10 PRO 15 VS

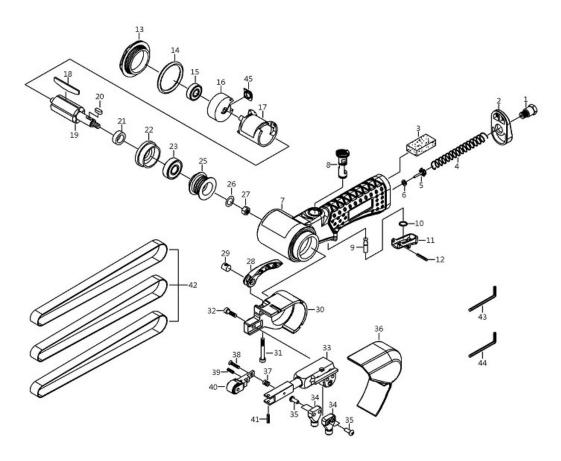


Fig. 10: Spare parts drawing BS-C 10 PRO 15 VS

### 12.2.3 Spare parts drawing BS-C 20 PRO VS

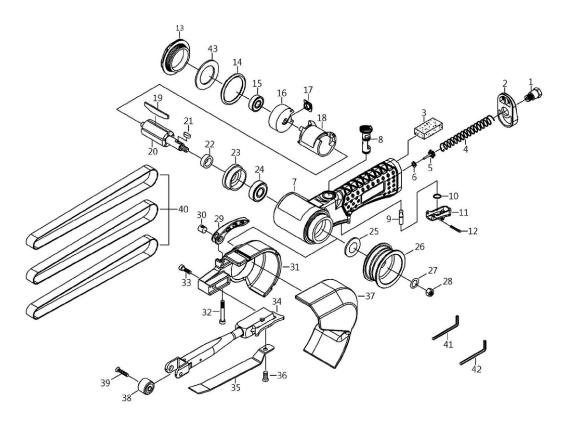


Fig. 11: Spare parts drawing BS-C 20 PRO VS



## 12.2.4 Spare parts drawing BS-C 20 PRO 15 VS

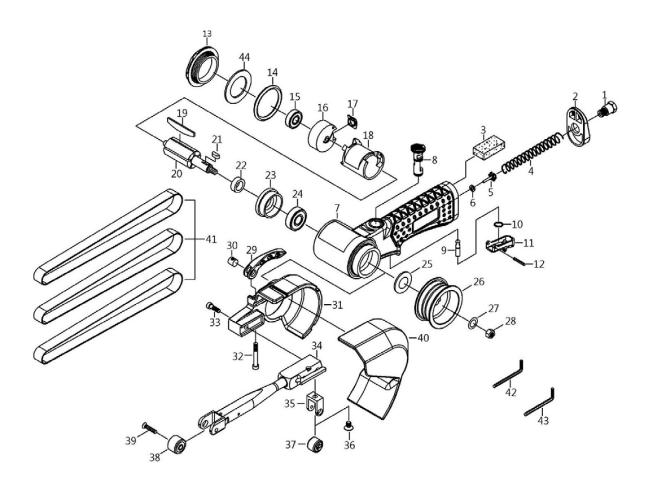


Fig. 12: Spare parts drawing BS-C 20 PRO 15 VS



Manufacturer / Distributor:

## 13 EC-Declaration of Conformity

According to Machinery Directive 2006/42/EC Annex II 1.A

Gewerbestraße Ost 6 A-4921 Hohenzell

	ribed below, by virtue of its design and construction and in the version marketed by nental health and safety requirements of the EC directives. This declaration shall fied without our prior consent.
Product group:	AIRCRAFT® Compressed Air Technology
Type of machine:	Belt sander
Designation of the device *:	□ BS-C 10 PRO VS       Item number *:       □ 2403770         □ BS-C 20 PRO VS       □ 2403780         □ BS-C 10 PRO 15 VS       □ 2403730         □ BS-C 20 PRO 15 VS       □ 2403740
Serial number*:	
Year of manufacture*:	20 *fill in these fields using the information on the nameplate
	of the above Directive, including any amendments thereto in force at the time of the d standards as well as national standards and regulations have been applied to en-
DIN EN ISO 11148-8:2011	Hand-held non-electric power tools - Safety requirements - Part 8: Sanders and polishers
DIN EN ISO 15744:2008	Hand-held non-electric power tools - Noise measurement code - Engineering method (grade 2)
DIN EN ISO 20643:2008 + A1:2012	Mechanical vibration - Hand-held and hand-guided machinery - Principles for evaluation of vibration emission
Responsible for documentation:	Klaus Hütter, Gewerbestraße Ost 6, A-4921 Hohenzell
Hohenzell, 27.11.2019	Hallstadt, 27.11.2019
Klan /L/Len	le Sout
Klaus Hütter Manager	Kilian Stürmer Manager

AIRCRAFT Kompressorenbau und Maschinenhandel GmbH



