Band saw BAS-650

Original Instructions Manual





Instruction manual and servicing

Band Saw BAS-650

INDEX:

- 1. Marking
- 2. Using
- 3. Working places
- 4. Safety instructions
- 5. Maintenance and setting
- 6. Forbidden handling
- 7. Drawings and schemes
- 8. ES certificate of conformity

1. Marking

Designation:

Producer:	Dr. Schulze GmbH	
Address:	Bollenberg 10	
	57234 Wilnsdorf	
	Germany	
Contact:	info@dr-schulze.de	www.dr-schu

<u>ulze.de</u>

CE

Series and type designations:	Band Saw B	AS-650
Type of cutting band:	steel, with h	ard metal teeth
Working place:	not suitable	for potentially explosive environments
Weight:	160 kg (with	out package)
Max. depth of cut:	650 mm	
Engine speeds:	1445 / min	
Dimensions of machine:	1100 x 1090	x 1830 mm (assembled)
Guaranteed level of acoustic out	tput Lwa:	97 dB
Emission value on the working p	lace L _{pA:}	84 dB
Uncertainty of measurement:		4 dB
Total value of vibrations:		does not exceed 2,5 m/s ²

Parameters (V, W, Hz, covering IP):

 ()))	/
Voltage:	230 V
Total power:	1,5 kW
Frequency:	50 Hz
Covering:	54 IP
Breaker:	16 A (preferably with engine characteristics C)
Control method:	manually

Machine does not produce ionizing radiation.

Main measurements of the machine



Maximum dimensions of cut material

Width	800 mm
High	650 mm
Length	700 mm

Warning

Read this instruction manual before first using of band saw is necessary. The using of machine in contradiction with this manual is forbidden and producer is not responsible for caused defects and injury.

During cutting is necessary to use the following protective equipment:

Hearing protection (headset and earplugs) Respirator Protective glass or shield Close-fitting clothing Headgear Protective sleeves for hands Reinforced apron to protect the abdomen

2. Using

Description

Band saw BAS-650 is intended for cutting large-size dust-silicate building blocks.

This machine is intended for cutting with the help of endless saw band.

High quality blade allows the top results and performance.

Band saw BAS-650 is not intended for cutting of soft materials such as wood, and plastic.

Construction of band saw has been designed such as robust and strong, but simultaneously lightweight so that it can be easily transported for the working places.

Main parts of machine:

- Machine frame with 2 wheels and 2 support legs
- Tilting cutting table with angle-arrestment
- Electric motor with cutting unit
- Wiring with switch
- Covers with safety switch

Band saw BAS-650 is intended for cutting with the endless saw band of prescribed dimensions and use.

The saw is supplied fully assembled and requires no additional installation.

Electrical installation of machine

Electrical installation of machine is designed and performed for external environment with water and dust occurrence. Machine is equipped with thermal protection against overheating of engine. Machine is equipped with power cable and connecting terminal.

3. Working places

Assembly and installation

After stopping of machine must be properly set up in the plane, fixed on stationary pad and properly secured so as to avoid when working with the machine to its inadvertent movement.

For safe operation with the machine must be around the machine safe space at least a distance of 1 m from the machine.

During work with the machine small fragments can fall off from the cutting material, so it is recommended to place the machine in the direction where there is no contact with people and you can't damage the surrounding objects.

After the placement on the working place you need to connect the machine to a power source by using the cable with cable end.

It is recommended the power cable to cover in place of the movement of person and handling of material, to avoid people tripping or falling objects on the power cord and damage. Do not operate the machine with a damaged power cord or extension.

For safe operation, it is necessary to provide adequate lighting so that the operator could see properly to all parts of the machine and the surrounding area.

Before starting the saw, it is necessary to check the proper tightening of the table and blade tensioning.

The manufacturer recommends before work to start the machine and check all its features.

For proper operation of the motor must be protected from overheating, after running it is recommended to let it run so that it could be cool down during work. It is not allowed more than 10 starts per hour.

The operator is required to keep the engine clean, especially the cooling fins and cooling ventilator.

Clogged cooling fins reduce the cooling efficiency and increase wear out of the electric motor. The engine could be shut down due to overheating.

Warning - ground wire (yellow-green) must be before operating the machine connected properly.

During cutting heavy pieces of material must operate the machine more than one person, the operator decides about the method of the cutting and then must lead the cutting process.

!!Attention!!Operate the machine with a loose blade is forbidden!

Cutting

Band saw BAS-650 allows only perpendicular cuts (angle of 90 °). Procedure for cutting:

- Before starting the saw is necessary to check the network connection, the state of the power cord and connection cable covering (against damages), condition and attachment of the cutting blade and condition and tighten of the table and the fastening of the covers.

- After start of the machine by the main switch the motor starts and spin the cutting band.
- Place the cut material on the cutting table, lean it on the cutting ruler and move gradually towards the cutting zone, first test the cutting on a sample
- Cutted material must be moved fluently to get straight and fluent cut, otherwise the band saw can be damage (the band can be twisted, it can lead to its destruction).
- After reaching the end position of the cutting table, band saw turns off automatically.

Band saw

Hard metal band saw is specifically designed for cutting of large-scale building blocks. Cutting siliceous materials is prohibited - will damage the blade. It is permissible to cut clay bricks or tiles.

Damage of the cutting blade is always caused by improper use.

4. Safety instructions

Installation of the blade

Before the replacement of the band saw, the operator must disconnect the machine from the electrical system by disconnecting the power cord. Each part of the machine should be cleaned from the remnants of the cut materials. If you are replacing band saw after cutting, it is necessary to note with the fact that the band saw may be hot!

Open the top (Pos. 43) and bottom door (Pos. 44) of impellers, release tension lever (Pos. 6) and lift the stop bar. After removing the cotter pins, remove the retaining bar handles. Remove the band saw and remove all its potential remains. Insert the new band in length with corresponding parameters and attach it in the reverse side. Pay attention to the correct direction of teeth. After attaching the band must be properly tensioned.

After tension of the band saw is recommended run machine for short time and check the tension of the band saw and mounting.

Do not operate the machine without a properly fitted covers! Door of impellers must be properly secured. In the event that the door is opened, the machine automatically stops!

5. Maintenance, adjusting, liquidation of machine

Maintenance and implementation terms

Check of saw condition	daily, continuously
Change of cutting tool	wear out, damage tooth
Remove of dust, cleaning	daily, continuously
Check of electrical installation	daily, continuously
Check of rotating parts	daily, continuously
Check wholeness of machine	daily, continuously
Check tightening of connection	daily, continuously

For proper operation of the machine it is necessary to perform regular maintenance, preferably after at the end of the work day.

Process:

- after completion of the work is necessary to have the machine run for about 3 minutes in order to cool down the motor and cutting tool
- check status of cutting band, or tension
- clean the individual parts of machine from the dust and dirt

Regular and careful maintenance ensures the correct operation of individual parts.

Repairs

Possible repairs of band saw BAS-650 are recommended to send directly to the producer or person/company who is recommended by producer.

Repair is recommended if the machine works abnormally (irregular noise, uneven speed, vibration, etc.). When finding irregular running machine down, unplug from the electrical installation and let the machine to check by technician from Dr. Schulze GmbH.

Damaged cables must be replaced immediately - there is a danger of electric shock!

Falling band from impellers

In cases where there is a falling band from the impellers, it is necessary to adjust the tilted of impellers.

Calibration procedure:

- turn off the machine from the mains by pulling the power cord
- loosen the locking set screw (see illustration)
- turn by adjusting screw according the illustration in a direction that is required (in the direction of slip bands)
- secure the arresting, turn on the machine to test and check the position of the saw band
- if necessary, repeat the procedure

Lubrication

Machinery Lubrication points are at exact guiding of the cutting table where there is a lubricator, the other bearings are encapsulated and do not required lubrication. Exact guidance should be lubricated at least 1 for three weeks, depending on frequency of use.

Problems and their solving

Problem	May cause	Possible solutions
	low voltage	check the wiring
low engine power		change the supply cable
	incorrect wiring	check the connection
	cut material is incorrectly set up on the cutting table	set up cut material
cut is not straight	high pressure on the	reduce cutting speed
	material during cutting	check the band tension
		clean teeth with brush
		check the status of the teeth
band saw is not cutting	clogged band saw	make several cuts into the material with good sanding properties
awitch docon't hold in the	burned coil switches	change the coil
switch doesn't hold in the ON position	incorrectly connected relay of coil	repair connection

Storage

During storage is necessary to place the machine in a dry indoor environment, before storage it must be properly treated in accordance with part 5 of this manual and must be preserved against corrosion.

Transport

For handling for short distance are needed only two people. To transport for longer distances, it is recommended to use mechanization or means of transport. Producer recommended in depending on the area in a vehicle and secured against overturning or displacement of the machine during braking or changing direction to ensure the cutter using fasteners to avoid damage. Operator should avoid crushing the people on the edges of the machine, or crossing limbs by wheels.

During transport is the table placed in the transport position (folded and locked) - and has a narrower profile. For safe handling of at shorter distance are sufficient two persons who tilts the saw and by using of two wheels takes over.

To handle on longer distance it is recommended to use lifting equipment - for this purpose the saw is equipped with a loop for hanging. It is forbidden to carry a saw with a forklift - risk of slipping and damage of machine parts.

Liquidation of the machine

In the case of liquidation is necessary to proceed in accordance with applicable laws of the State, in which is the machine operated.

6. Forbidden manipulations:

Operator is not allowed:

- operate a device that its design does not correspond with the conditions mentioned in this manual
- interfere to the electrical or mechanical parts of the machine when the machine is in operation
- connect the machine to the electrical system, which does not have ground
- use the band saw for other than the manufacturer specified materials
- operate the machine in the rain in the open space
- operate the machine with a damaged electric cable
- operate the machine with a damaged saw band
- strain electrical connections by pulling
- lead electric cable over sharp edges
- overload device
- increase the capacity of the machine without agreement with the producer
- use the machine for the transport of persons
- operate the equipment without proper and regular maintenance
- maintenance and cleaning of the equipment during operation
- open during work control equipment and service openings
- operate the machine other than by authorized person
- to operate the device without performing regular inspections of emergency function switches
- start machine or part after an emergency switch off if the cause was not intended or accidental emergency stop without performing checks to safety equipment parts which were in operation at the stop, the inspection of environment and if the damaged were not remove
- adjust mechanical or electrical equipment other than authorized person, especially when setting up the security features
- repair and remove protective covers without stopping the device without protection against the responsible person against start
- start the device without re-placement of protective covers and without authority designated responsible person
- lubrication of device during running, except situations when the lubrication place is in design, which allow lubrication without danger
- lubricate individual parts of device during work when the covers are removed
- make changes in design, location or operating rules without the knowledge of the producer

Operator is required:

- follow working instructions concerned to the disposal of cut material on the device, setting the allowable weight, its location and limiting dimensions
- before starting the machine check the design of electrical installation
- before the intervention check the installation of the machine (in the range instruction manual) stop the engine and disconnect the device from the electric network
- make regular control, adjustment and maintenance
- keep working places and passages clean and unobstructed

- checking, adjusting, maintaining and cleaning the moving parts as recommended by the manufacturer / supplier of device
- know about switches to stop the device, including emergency, switches must be easy available, all areas must allow access to them, must be kept clean and free of obstacles
- regularly check function switches
- make lubrication equipment in accordance with operating instructions / manual
- be properly trained with regard to the operation and maintenance instructions manual
- during work with device wear required clothing without loose parts and prescribed protective equipment
- maintain control of the vents and removable section of the covers functional and secured for safe using
- check the functionality of the security features of the device (alarm, limit switches)
- check purity of the sieve
- clean the sieve regularly
- after the end of the work carried out maintenance according part 5 this manual
- keep the prescribed functional marking devices, mainly marking, conforming to the requirements of European directives in the field of traffic safety
- implement proper control of the filling process equipment and control the overfill protection

7. Drawings and schemes List with the spare parts for BAS-650

Position	List of spare parts	Order no.	Qty of pcs used on 1 machine
1.	Frame		1
2.	Holder of the upper wheel	500-00-913	1
3.	Bounding ring	500-00-914	1
4.	Bushings	500-00-98	1
5.	Eccentric	500-00-915	1
6.	Lever	500-00-916	1
7.	Spring pad	500-00-917	1
8.	Spring	500-00-95	3
9.	Shaft	500-00-918	1
10.	Upper impeller wheel	500-00-73	1
11.	Impeller wheel of motor	500-00-919	1
12.	Rubber belt	500-00-80	2
13.	Protective strip	500-00-920	1
14.	Holder of pulley	500-00-114	2
15.	Screw		2
16.	Pad		4
17.	Bearing	500-00-100	2
18.	Pad		4
19.	Screw		2
20.	Screw		2
21.	"U" profile	500-00-921	1
22.	Holder	500-00-922	1
23.	Shoulder of the table	500-00-923	1
24.	Pad		1
25.	Cover engine	500-00-924	1
26.	Excentre	500-00-925	1
27.	Screw		1
28.	Bandsaw blade	500-00-59	1
29.	Ball bushing	500-00-79	2
30.	Guiding rod	500-00-78	1
31.	Bushing	500-00-926	2
32.	Bushing	500-00-97	2
33.	Pad	500-00-927	1
34.	Clamping clique	500-00-928	1
35.	Screw		1
36.	Locking pin BET		2
37.	Pad holder rulers	500-00-929	2
38.	"U" profile front	500-00-930	1
39.	Holder rulers	500-00-931	2

Position	List of spare parts	Order no.	Qty of pcs used on 1 machine
40.	Ruler	500-00-932	1
41.	Locking plate	500-00-933	1
42.	Screw		
43.	Upper cover	500-00-934	1
44.	Bottom cover	500-00-935	1
45.	Connecting profile	500-00-936	1
46.	Rivet		6
47.	Rivet	500-00-937	2
48.	Fork	500-00-264	2
49.	Safety profile	500-00-938	1
50.	Rubber stopper	500-00-34	2
51.	Handles	500-00-87	2
52.	Arresting	500-00-33	1
53.	Switch	500-00-108	1
54.	Screw		4
55.	Pad		4
56.	Pad		2
57.	Locking pin		2
58.	Motor with gearbox	500-00-106	1
59.	Screw		4
60.	Pad		4
61.	Nut		4
62.	Screw		2
63.	Pad		2
64.	Screw		2
65.	Screw		2
66.	Pad		2
67.	Nut		2
68.	Screw		2
69.	Pad		2
70.	Protective pad		2
71.	Grommet		1
72.	Screw		6
73.	Pad		1
74.	Screw		1
75.	Nut		1
76.	Screw		1
77.	Nut		2
78.	Screw		2
79.	Nut		2
80.	Pad		2

Position	List of spare parts	Order no.	Qty of pcs used on 1 machine
81.	Limit switch		2
82.	Table of the Band saw	500-00-939	1
83.	Screw		2
84.	Pad		2
85.	Screw		1
86.	Nut		1
87.	Pad		1
88.	Screw		4
89.	Pad		4
90.	Bearings	500-00-101	4
91.	Nut		1
92.	Screw square		1
93.	Pad		1
94.	Clique	500-00-88	1
95.	Screw		2
96.	Pad		2
97.	Screw adjusting the blade	500-00-89	1
98.	Clamping clique	500-00-113	1
99.	Pad		1
100.	Pad		1
101.	Locking pin		1
102.	Lifting eye		1
103.	Bearing	500-00-102	2
104.	Locking pad		2
105.	Locking pad		1
106.	Locking pin		2
107.	Screw		4
108.	Pad		4
109.	Nut		4
110.	Screw		2
111.	Pad		2
112.	Nut		2
113.	Screw		4
114.	Pad		4
115.	Grommet		4
116.	Transport wheel	500-00-83	2
117.	Holder protractor	500-00-14	1
118.	Protractor	500-00-15	1





Circuit diagrame for BAS-650



Used pictograms on the machine



Read the instruction manual





Caution, risk of injury by cutting



Command to wear hearing protection

Command to wear eye protection



Command to wear hand protection

8. Declaration of conformity

Dr. Schulze GmbH Bollenberg 10	Band saw BAS-650	
D-57234 Wilnsdorf Tel. +49 (0) 27 37 59 53 0	June 2017	
Fax +49 (0) 27 37 59 53 0	June 2017	

CE

Declaration of conformity

(EC guideline 2000/14/EG)

Installed power output Measured sound level L_{wa} Guaranteed sound level L_{wa} 7,5 kW 103,1 dB 104 dB

We, company dr. Schulze GmbH declare, that the Dr. Schulze product Band saw BAS-650 corresponds to the following EC-guidelines:

Outdoor guideline	2000/14/EG
Guideline of machine	2006/42/EG
Electromagnetic compatibility	2004/108/EG
Guaranteed level of acoustic output Lwa:	97 dB
Emission value on the working place L _{pA:}	84 dB
Vibration total value does not exceed:	2,5 m/s²

Used harmonized norms:

EN ISO 12100-1	security of machinery – basic terminology
EN ISO 12100-2	security of machinery – technical principles and
	specifications
EN 60204-1	electric safety of machinery

Applied valuation procedure of conformity according to RL 2000/14:

Internal production control according to article 14 § 2 according to annexe V.

The declaration of conformity is no longer valid, as soon as the installation and the use of the Band saw BAS-650 does not correspond to the machine guidelines and specifications.

Germany, Wilnsdorf, 22-Jun-17

Dr. Schulze GmbH Bollenberg 10 D-57234 Wilnsdorf