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OPERATING INSTRUCTION

for

JAESPA

HORIZONTAL MITRE CUTTING BANDSAW

Model range:

W 220 DG
W 220 DGH

Machine no.:



Contents:

Safety instructions

· Operating elements

· Foundation drawing

— Operating instructions

Electric diagram

Hydraulic diagram

Wear- and spare parts

— Lubrication chart

Before erecting / installing / putting into operation of the machine, it is important to read this operating manual, for your safety and in order to avoid damage to the machine.

When ordering spare parts, please always advise model/type and serial number of machine.

I M P O R T A N T I M P O R T A N T I M P O R T A N T

S A F E T Y I N S T R U C T I O N S

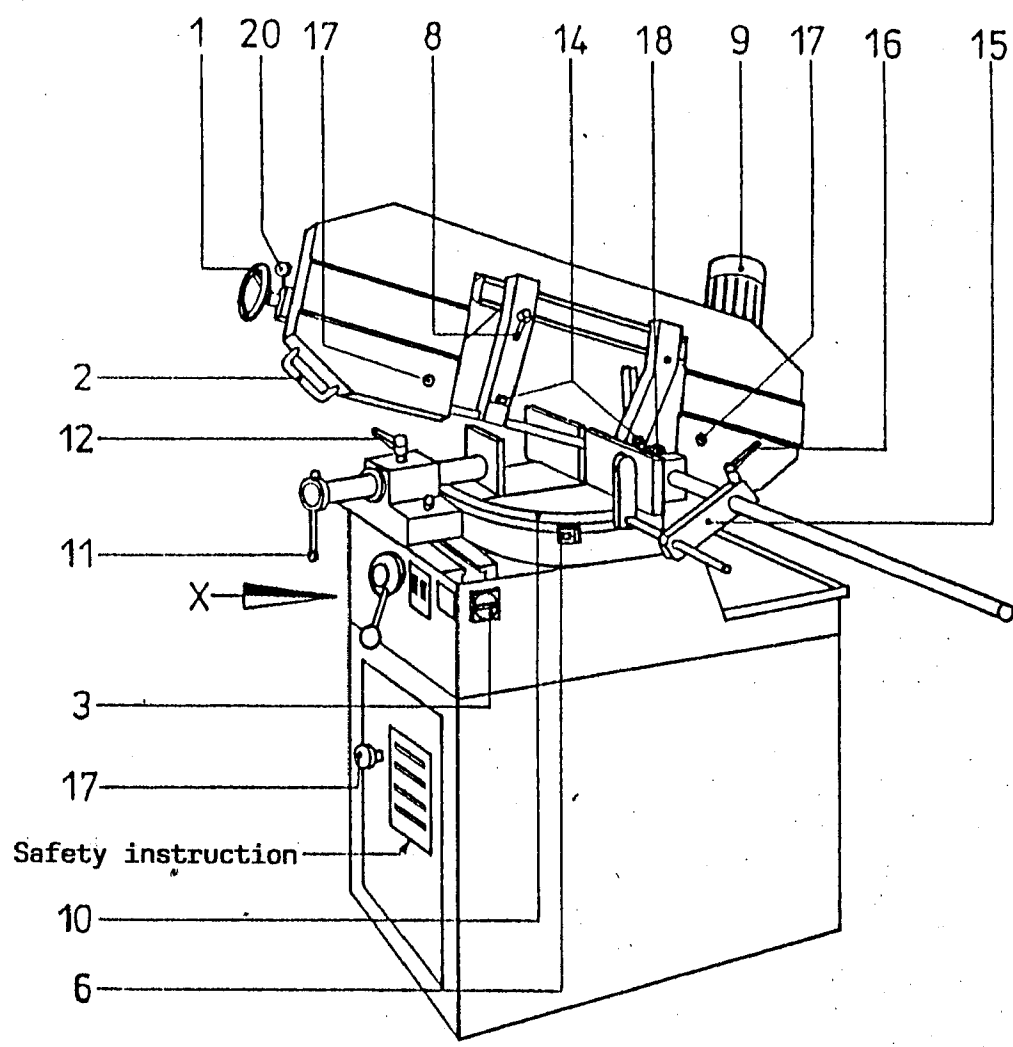
PLEASE PAY ATTENTION TO THE FOLLOWING GUIDELINES:

- A: The machine must be operated by qualified personnel only. Operating the machine can be dangerous if put to improper use. A bandsawing machine has an especially high risk of injury.
- B: The operator/s of the machine has/have to get familiar with the operation and maintenance of the machine and thoroughly read the operating instruction.
- C: When doing set-up or maintenance work the **main switch** must be put to **OFF** position and it must be taken care that the switch cannot be actuated by any unauthorized person.
- D: Before switching on the machine, install all protective covers.
- E: Do not touch the running sawband.
- F: Always switch off the machine when it is stopped.
- G: Modifications on the machine which influence the safety must be reported immediately.
- H: The operator is obliged to operate the machine in perfect condition only.
- I: Do not remove any safety devices, such as sawband protection, as this is bearing a very high injuring danger.
- J: It is generally recommended to wear protective gloves. When changing the sawband, **ALWAYS** wear gloves.
- K: The main power supply must be embedded in such a way that the cable cannot be squeezed.
- L: Waste disposal of coolant must be made in accordance with the corresponding regulations or biodegradable coolant should be used.
- M: When changing oil or doing any kind of maintenance work, always keep ready an oil-absorbable medium.

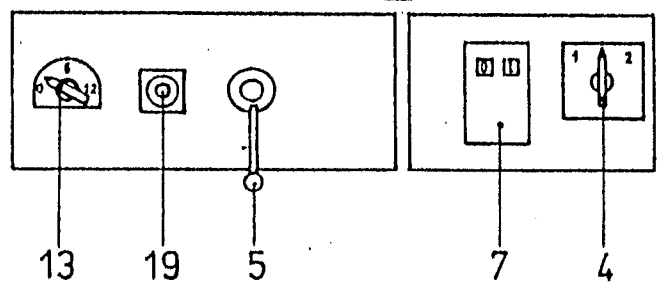


Operating elements

1. Handwheel for blade tension
2. Lever for lifting of sawbow
3. Main switch
4. Selector switch for blade speed 30 and 60 m/min.
5. Clamping lever for sawbow
6. Coolant 'on' / 'off'
7. Switch for saw motor
8. Adjustment of guide arms
9. Saw motor
10. Scale for angle cuts
11. Eccentric lever for material clamping
12. Clamping lever for adjustment of vices
13. Regulation of sawbow downfeed
14. Reset to 90°
15. Material length stop
16. Material length stop, clamp - release
17. Door locks



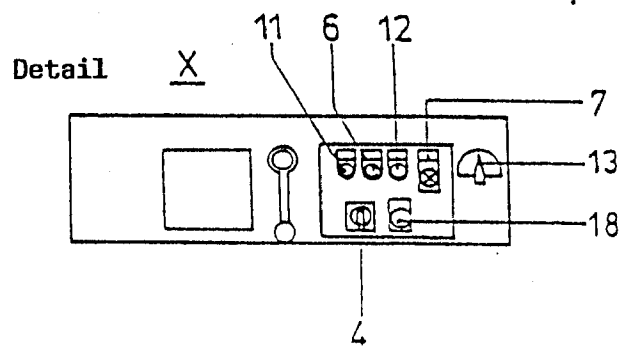
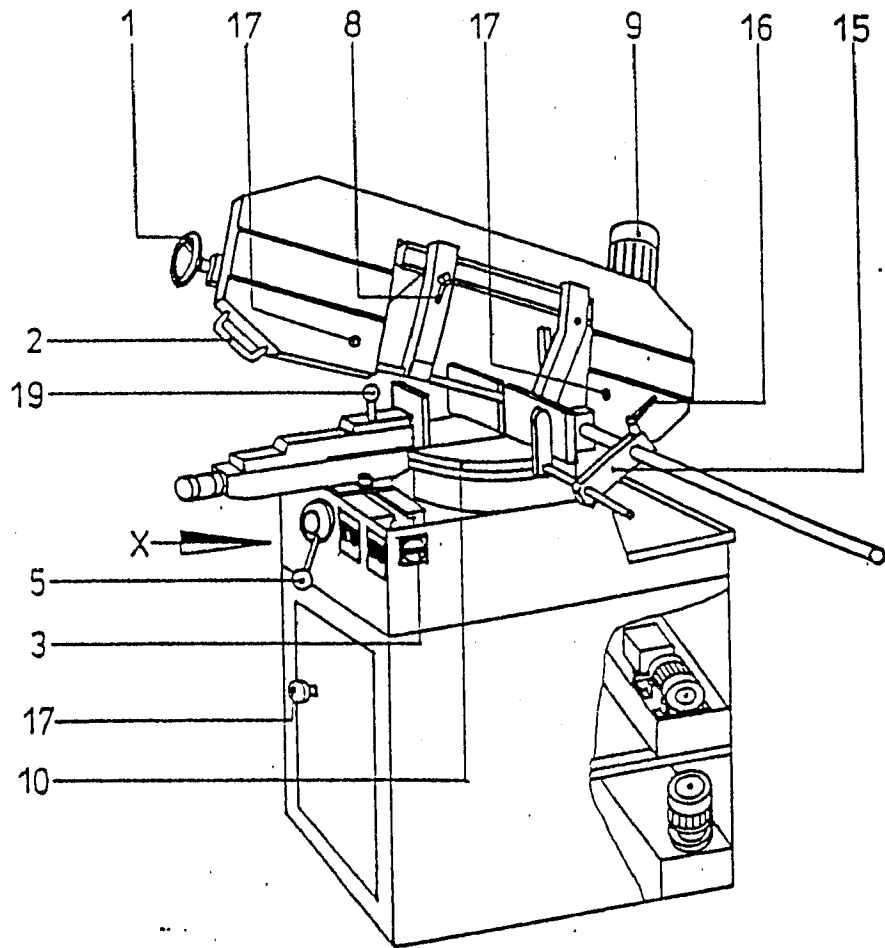
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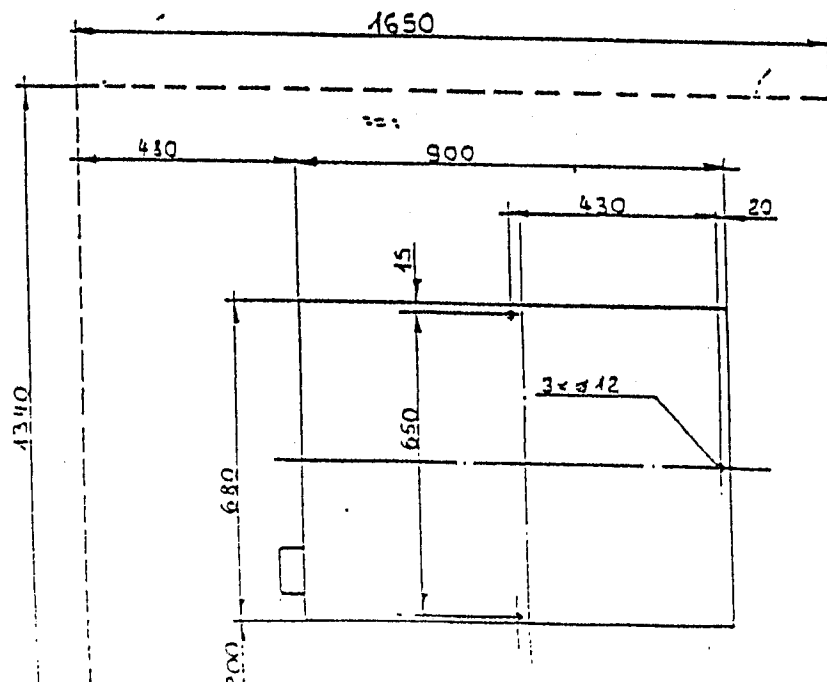
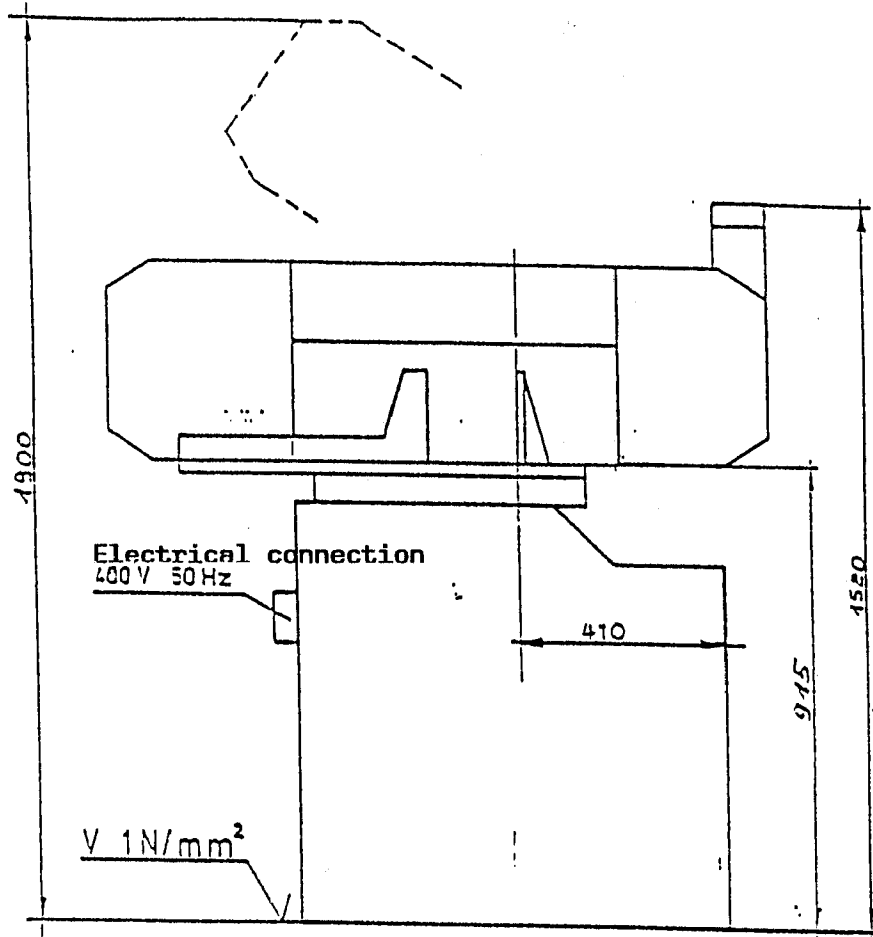




Operating elements

1. Handwheel for blade tension
2. Lever for lifting of sawbow
3. Main switch
4. Selector switch for blade speed 30 and 60 m/min.
5. Clamping lever for sawbow
6. Coolant 'on' / 'off'
7. 'Start / Stop' switch
8. Adjustment of guide arms
9. Saw motor
10. Scale for angle cuts
11. Adjustment of sawbow lifting height
12. Sawbow 'Lift / Lower'
13. Regulation of sawbow downfeed
14. Reset to 90°
15. Material length stop
16. Material length stop 'Clamp / release'
17. Door locks
18. Emergency stop
19. Clamping lever







The following instructions will help you to get familiar with the function and operation of this mitre cutting bandsawing machine.

In spite of the clear construction and easy operation of this machine we recommend to study thoroughly this operating instruction prior to commissioning of the machine.

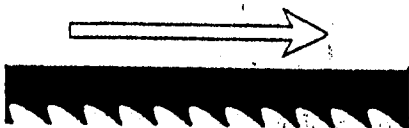
1. Installation of machine

Remove packing and transport safety devices. For hoisting the machine up by crane, screw in the attached 4 rings. The screwed holes are covered with bright protection caps. Unscrew gallery resp. transporting logs and put machine down. The machine can be fixed to the hall floor by using goliath plugs. Now remove the anti-corrosive agent from all bright parts. **Attention:** Fix water protection sheet over control switches.

2. Electrical connection

Connect power supply cable = 5 x 1,5 mm² (3 phases, neutral conductor, protective conductor) to the terminal cabinet. Check rotating sense of motor and, if necessary, change two phases.

Attention: read item 3. before switching on the machine !



3. Filling up of coolant

The coolant tank can be removed for cleaning and filling up coolant. The mixture ratio should be 5 %. The tank capacity is approx. 15 ltr. However, always pay attention to the instructions of the coolant manufacturer.

4. Working method of machine W 220 DG

- Switch on main switch
 - Adjust regulating valve item 4 to "0"
 - Lift sawbow to required position
 - Release clamping vice item 14 and open to required width
 - Put material into clamping vice
 - Adjust material stop to length for repeated cuts
 - Push clamping vice to 1 - 2 mm of material and clamp material via eccentric lever item 15. In case clamping is insufficient, re-adjust vice.
 - Check position of cutting angle. For mitre cuts, release clamping item 12 and position sawbow to the desired angle. Clamp sawbow.
- ATTENTION:** Clamping vice can be shifted to the right or left side. Adjust it in such a way that the sawbow will not damage the

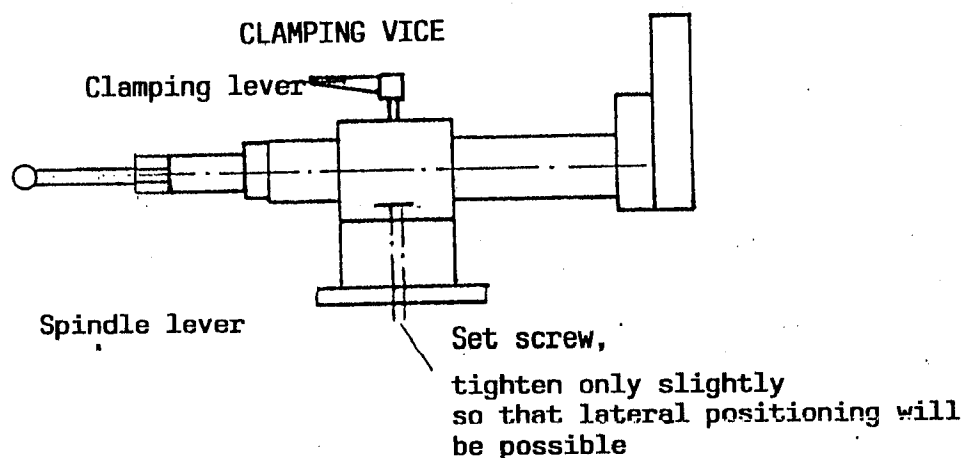


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4. Working method of machine W 220 DG, cont.

- Actuate main switch
- Adjust feed regulating valve pos. 13 to "0"
- Lift sawbow to desired position by means of lever pos. 2
- Loosen pos. 12 of clamping vice and open to desired width
- Put machine into vices for cutting
- Adjust material stop to length for repeated cuts
- Push vices upto 1 to 2 mm near material and clamp it
- Clamp material via spindle lever pos. 11. If you cannot reach sufficient tension, the clamping vice must be adjusted.
- Check cutting angle position. For mitre cuts, loosen clamping pos. 5 at lever pos. 6; swivel sawbow to desired angle. Re-clamp sawbow.
- ATTENTION: Clamping vice can be shifted to the right or left side. Adjust it in such a way that the sawbow will not damage the sawbow during cut.
- Switch on saw motor via "Saw motor switch"
- Adjust sawband speed motor position I or II.
- Adjust coolant flow by means of the two shut-off valves at the guide a
- Slowly open feed regulating valve, sawbow lowers, carefully start to cut
- If necessary, re-adjust saw feed.
- After end of cut, machine shuts off automatically. Sawbow can be lifted as described above.

Clamping vice

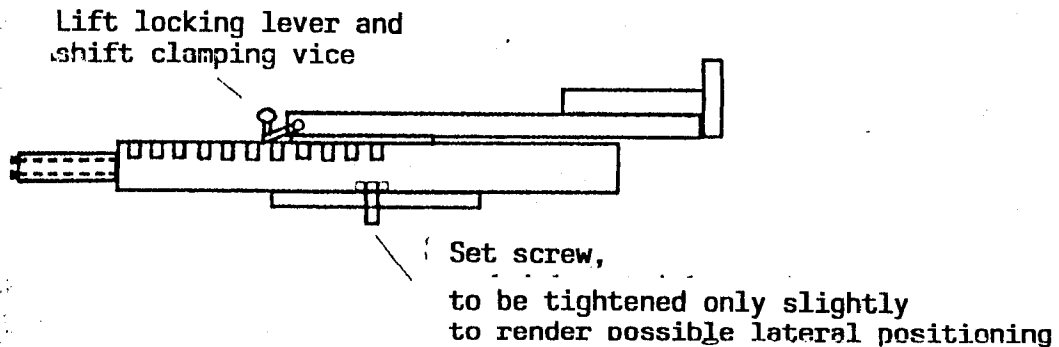




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4. Working method of machine W 220 DGH

- Switch on main switch
- Adjust regulating valve item 4 to "0"
- Turn selector switch to "LIFT" in order to bring sawbow into required position
- Lift clamping lever of vice-hydraulic cylinder and open clamping vices to required width
- Put material to be cut into the vices
- Adjust material stop to length for repeated cuts
- Push clamping vice to 1 - 2 mm of material and lock clamping lever
- The remnant clamping will be obtained via the hydraulic cylinder after switching on the machine
- Check position of cutting angle. For mitre cuts, release clamping item 12 and position sawbow to the desired angle. Clamp sawbow.
ATTENTION: Clamping vice can be shifted to the right or left side. Adjust it in such a way that the sawbow will not damage the clamping vice during cut.
- Switch on saw motor via "START"
- Adjust sawblade speed to position I or II
- Adjust coolant supply
- Slowly open regulating valve, sawbow lowers, carefully start cutting
- If necessary, re-adjust sawbow feed
- After finished cut, the saw motor shuts off. Sawbow is hydraulically lifted up to the upper material edge. This height is automatically approached by the sensor arm.



5. Sawblade change

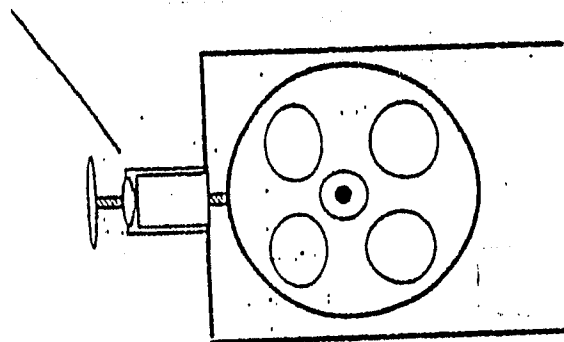
- Open protection doors by means of the enclosed key, with the sawbow lifted. When opening doors pay attention that the blade protection will not get caught
- Release blade tension by means of handwheel. Put on gloves and remove the old sawblade by pushing it downwards out of the guides.



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- Remove sawblade from the machine using both hands
- Attention: fold the used sawblade in the same shape as you receive new blades
- Unpack new sawblade and spread out. Attention: The sawblade has a residual stress and may break open = danger of injury !
- Check sawblade running direction, i.e. teeth must face running direction. In case the sawblade was not delivered that way, it must be twisted to have the correct direction.
- Put the sawblade onto the wheels so that the back of the blade sits close to the collar of the sawblade wheel.
- Slightly tension sawblade by means of handwheel and then press it into the blade guides.
- Always pay attention that the sawblade fits correctly into the blade guides.
- Now continue to tension the sawblade until the marking is reached.
- Remove plastic blade protection only now.

Marking plate edge must match puncture on set collar



6. Sawblade tracking

- Check blade tracking regularly. The back of the blade should run approx. 0,5 to 1 mm to the collar of the sawblade wheel (wheel edge)
- For regulation, the whole reception of the blade tension wheel may be adjusted
- Running direction may be changed by tilting the support plate axially. For this, the fixing screws on the back of the sawbow must be screwed in or out.



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- Attention: The correct setting of the machine has been done in the manufacturer's factory

7. Sawblade guide

The two guide arms are laterally adjustable. Release clamping lever and position guide arms. **Attention:** especially after performing mitre cuts, guide arms must be positioned to correct distance. If guide arms are too far from cutting point, this will influence accuracy of cut.

8. Sawblade speed

The machine has two blade speeds:

- Motor position I

30 m/min. = special steel, stainless material, alloyed steel
tool steel, material which is difficult to cut

- Motor position II

60 m/min. = gray cast-iron and medium quality steel
C45, ST50 and material which is easy to cut

These recommendations are only for the use of Bi-Metal sawblades. Please pay special attention to the instructions from the sawblade manufacturer.

10. Cutting pressure

The downfeed of the sawbow can be adjusted by means of the regulating valve.

0 = STOP
1 to 12 = slow to fast

Attention: when using a new sawblade, downfeed should be adjusted considerably slower. Increase the feed after 15 to 20 cuts. This influences lifetime of the sawblade.

11. Material length stop

Put the material length stop into the respective boring and fix it. Adjust cut-off length by means of a measuring tape or test piece. Then repeated cuts are possible.



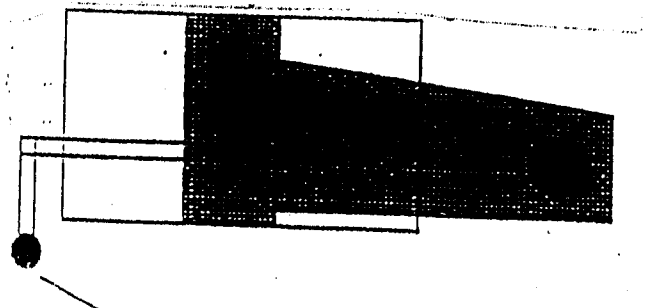
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12. Cooling of sawblade

- The machine is equipped with a coolant tank and an electric coolant pump. If the micro-spray device (Optional equipment) has not been ordered, coolant must always be used, except when cutting cast iron.
- Regularly check the coolant and fill up the tank in time.
- Mix coolant according to recommendations of supplier.
- Coolant pump may be switched on or off by means of the selector switch on operating panel.
- In case there is no more coolant on the sawblade, the suction filter may be clogged. For cleaning this filter, the coolant pump may be removed.
- Also, the complete tank may be removed from the machine for cleaning.

13. Mitre cutting

- The machine is equipped with an integrated pivot bearing.
- Release clamping and position sawbow to the desired angle.
Attention: when positioning sawbow, pay attention that sawblade will not be damaged by pieces of material.
- Re-clamp sawbow in required angle position.
- Now it is imperative to bring the clamping vice to optimum position by lateral shifting.
- Also, bring guide arms to optimum position.
- The W 220 DG and W 220 DGH machines are equipped with a centering device for the 90° position. This snap-on centering device must be removed when adjusting to mitre angle.



Clamping lever for sawbow

14. OPTIONAL EQUIPMENT:

Automatic stop at blade breakage

The machine shuts off at blade breakage, controlled by a limit switch which is actuated by an adjusting ring on the blade tension spindle.

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Sawblade cleaning brush

If requested, the machine has been equipped with an electrically driven cleaning brush instead of the standard mechanical brush. The brush must only slightly touch the sawblade and has to be re-adjusted regularly; especially after a blade change. Also, the flexible shaft must be greased regularly. If not, the shaft may fail.

Micro mist spraying device

In case the machine is equipped with a micro mist spraying device (optional), you will receive a separate manual for this device. In any case, at least 1,5 bar compressed air must be connected. The electrical connection to the machine has been made in the factory. Machines recently delivered were connected in such a way that with the selector switch 'Coolant I or 0', the mist device is operative at '0'.

Roller conveyor and measuring systems

Roller conveyors are delivered with separate supporting legs. Each roller conveyor element has one supporting leg. The next element is screwed onto one half of the supporting leg of the first element. For connecting this to the machine, you have ordered either a connecting piece or an additional supporting leg. Measuring rails are already fixed onto the roller conveyor elements. These elements are always to be installed at the outfeed side and must be firmly connected to the machine. At last, the material stop must be installed and then the scale is fixed onto the measuring rail. Rectangular cut-offs will only be obtained with an exactly aligned roller conveyor.

Hydraulically controlled sawblade tension

Instead of the marking described under item 5. of this manual showing a sufficient blade tension, it may also be controlled resp. adjusted via a manometer, if the hydraulically controlled sawblade tension has been ordered.

Digital indication of cutting angle

This device provides an exact and easy adjustment of the cutting angles. A measuring system at the pivot bearing transfers impulses to the scoring electronics. A seven-segment-indication allows reading off the angles. The system can be re-adjusted in the 90°-position via a reset-button installed in this indication. In the interests of safety, adjust this position with an angle and then push the reset-button. Chips which may have accumulated in the region of the measuring system should be removed regularly.