



OKOMA - Maschinenfabrik GmbH

Holzbearbeitungsmaschinen

Kapellenweg 23

Telefon 07364 / 23 - 70

Telex 7 13 735

7082 Oberkochen

OKOMA - Maschinenfabrik GmbH
Postfach 1260, Bahnhofstraße 6

D-7082 Oberkochen - Württ.

Woodworking Machinery
Tel.: 07364 - 2605/26 Telex: 0713820

Type : SF3 S Automat

Built :

Order no.:

Technical Specifications:

Cut-off saw:

Motor	3 KW
Speed at 50 Hz	2800 rpm
Saw blade diameter maximum	400 mm
Saw blade dimensions (carbide-tipped)	
- 400 x 3.5 x 30, 48 teeth, drive hole 7 mm dia., TK 44	
Maximum cutting height	140 mm
Turret head setting	12

Tenoning spindle:

Motor	7.5 KW
Motor power increase	11 KW
Spindle speed	4000 rpm
Tenoning spindle	40 mm dia.
Clamping height	220 mm
Maximum tool diameter	320 mm
Maximum tenon length	125 mm
Spindle lift maximum	130 mm

Roller table:

Swivel range, both sides	0 - 60°
Table size	700 x 400 mm
Roller table height	835 mm
Supporting length with auxiliary table approx.	1300 mm
Length stop LAS triple lift system, standard	2300 mm
Pneumatic clamping units	2
Required pressure, minimum	7 kg/cm ²
Feed, infinitely variable	0 - 20 m/min

Net weight

SF3 S Automat	800 kg
SF3 S with lift	700 kg
SF3 S without lift	700 kg

Standard accessories

1 single-end spanner 14 A/F	14 A/F
1 single-end spanner 50 A/F	50 A/F
1 double-end spanner 17/19 A/F	17/19 A/F
1 hexagon pin spanner DIN 911	6 A/F
1 grip bolt with ball 18 092	
1 operating instructions	

Extraction data

Cut-off saw	extractor dia.	100 mm
Tenoning spindle	" "	140 mm
Air velocity		32 m/sec

When the machine is delivered check for possible transportation damage. If the packaging material is damaged, this may be evidence of incorrect handling during transportation.

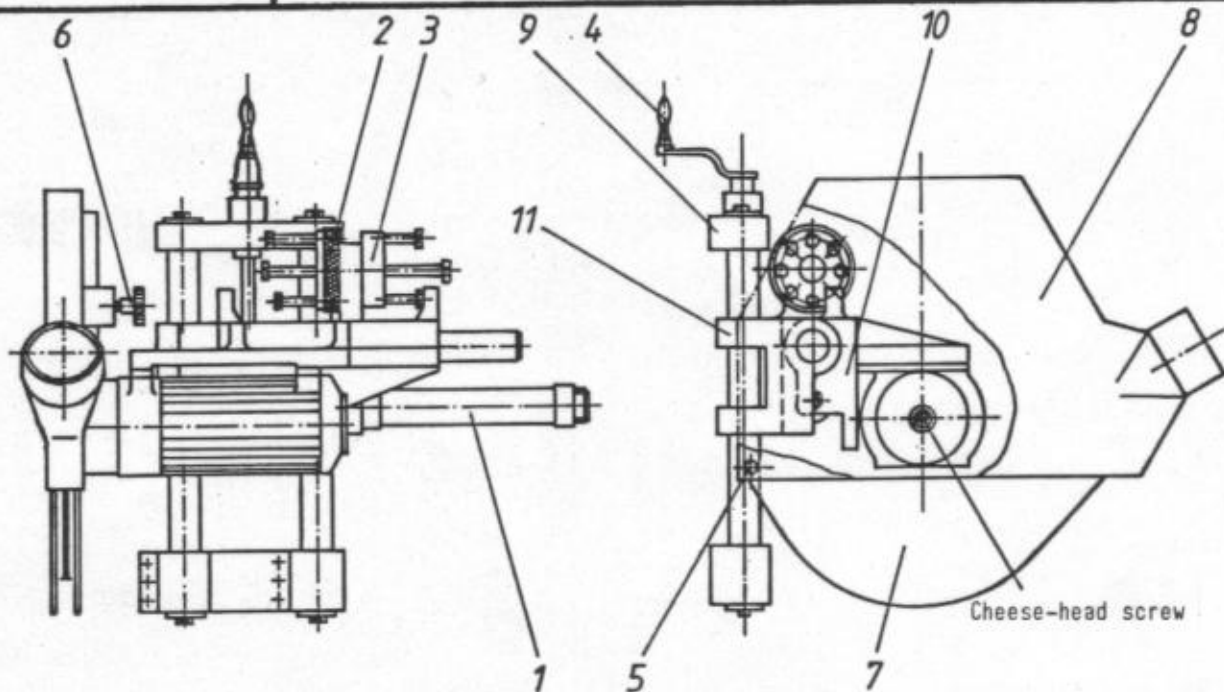
When transporting to the place of installation, hemp ropes should be used instead of chains in order to avoid damage to metal parts. If a drawing is available showing the lifting points, the ropes should be attached there; otherwise a forklift truck should be used.

The rust protecting coating must be removed but without using a nitro solution which could damage the paint finish on the machine. A thin film of oil must be applied to all bright parts after cleaning.

On machines that can be moved from one position to another (all mobile machines) it is sufficient to mount them on a flat foundation surface. The electrical connections can then be made and, where provision has been made for this, the extraction system can be connected. Machines equipped with means of travel require a good track in order to move them easily. Machines that must have a fixed location should be placed on a firm foundation base so that the machine can be initially adjusted with precision by means of steel wedges or screws. High precision work on large components is possible only on a machine that has been properly set up. The foundation screws (which are not included in the delivery) must subsequently be connected with the machine. Machines which produce a large amount of vibration can be placed additionally on vibration-damping material.

In the case of types UF and UF/S it is sufficient to place them on felt or hardboard.

The cable must be connected to the power supply box by an electrician after checking the direction of rotation of the motor. Circuit diagrams are provided with switch cabinets.



The cut-off saw from above is available in two different versions. Vertically and horizontally adjustable, and only horizontally adjustable.

The horizontal adjustment is initiated by a pneumatic cylinder (1). The depth of cut can be set manually by means of the rotatable turret heads (2+3).

The vertical adjustment is performed by means of a trapezoidal threaded spindle and a hand crank (4).

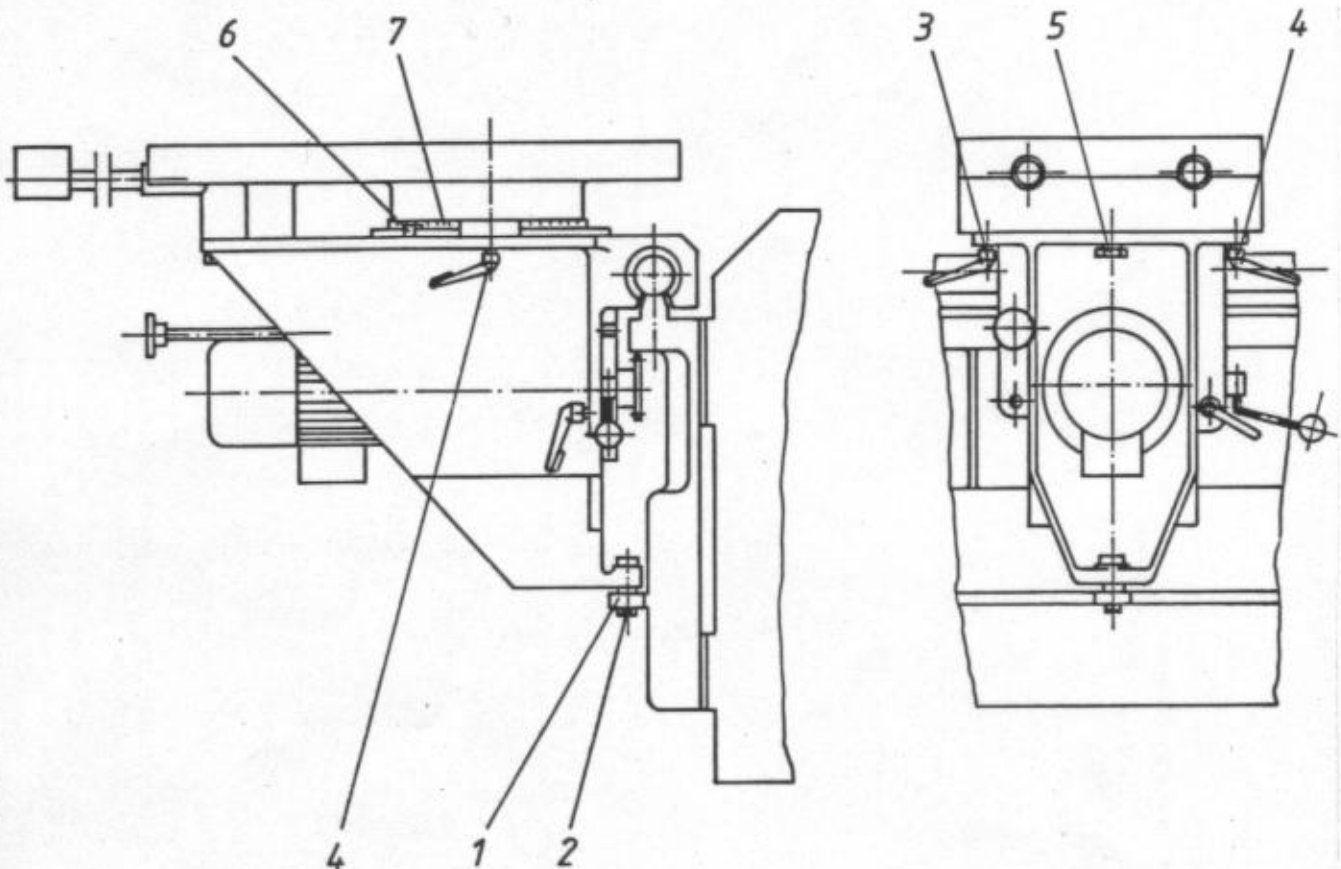
When changing saw blades the procedure is as follows:

After slackening screw (5) and star grip (6) the cutter guard (7) and the cover (8) can be removed. A cheese-head screw can then be seen which must be unscrewed completely in order to be able to remove the flange that now exposes the saw blade.

When assembling it must be ensured that the cover and cutter guard completely cover the saw blade.

The following lubricating points are provided and must be lubricated monthly (m) or weekly (w):

On the take-up (9) there is a lubricating nipple (m), on the motor plate (10) there are two lubricating nipples (w), and on the slide (11) there are four lubricating nipples (m).

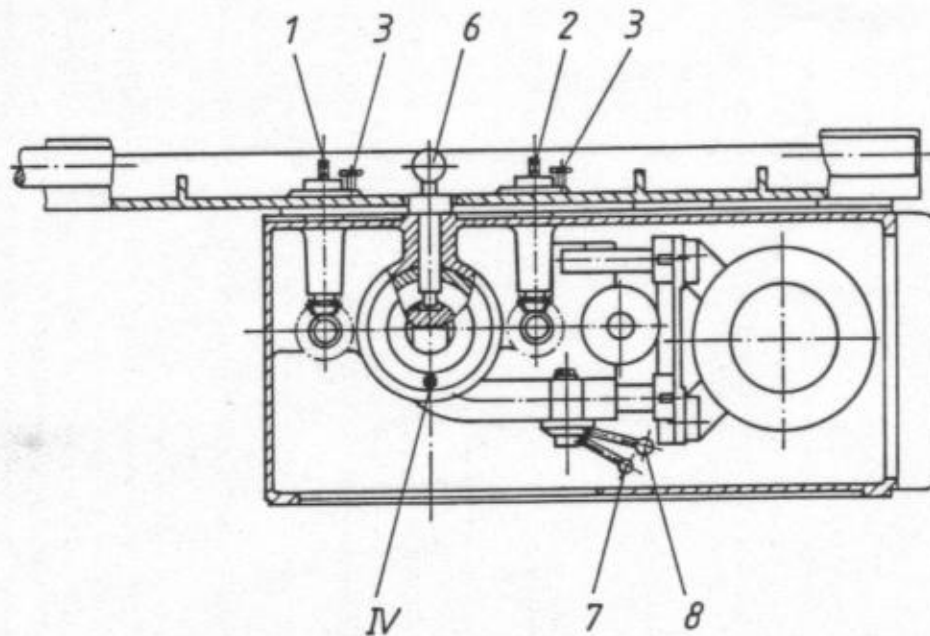
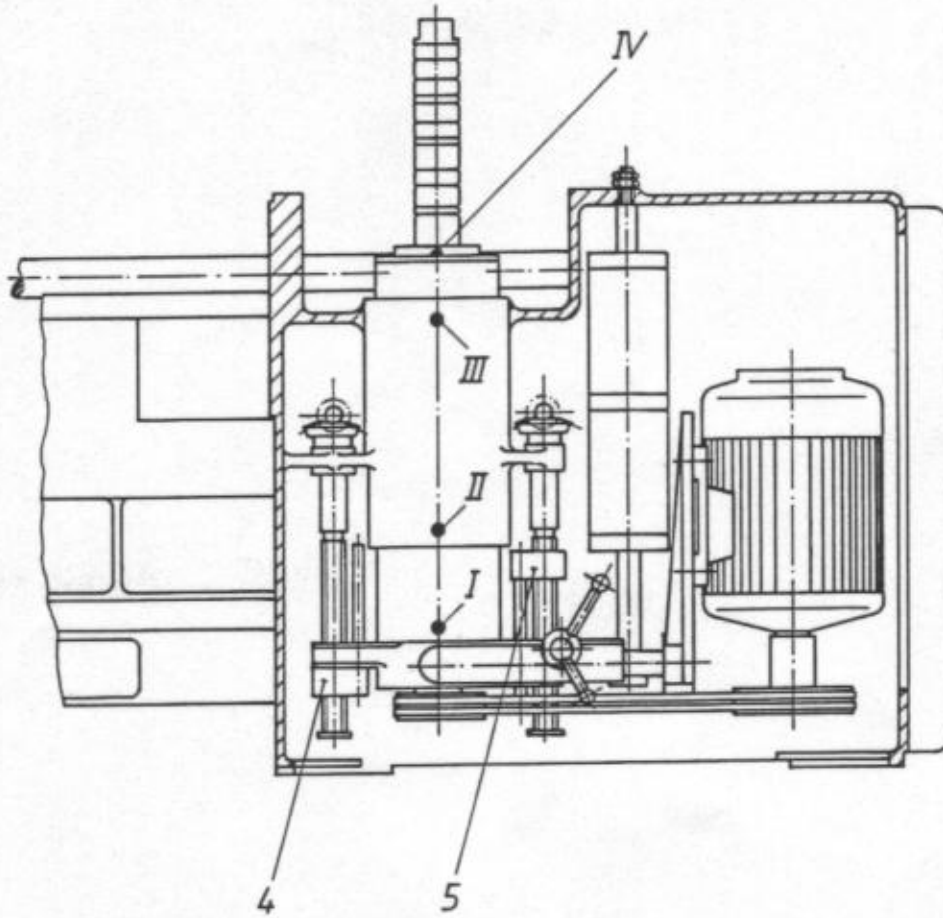


The guide roller (1) is mounted on a bolt (2) that can be rotated eccentrically in the bearing. By rotating the bolt (2) the roller table can be adjusted horizontally.

In order to be able to swivel the roller table, the two clamping levers (3+4) and the stop bolt (5), with which the roller table is locked in the 0° position, must be slackened. The desired angle can be set on a scale (7) on the roller table and a pointer (6) that is attached to the carriage. The two clamping levers (3+4) must then be retightened in order to prevent the table from rotating further.

No substance that is soluble in fat may be used for cleaning the round guide.

After cleaning, the guide must be lightly oiled with a clean rag.



Tenoning spindle - drive

The belt is tightened by means of levers 7 + 8. After opening lever 7, the motor can be adjusted as required with lever 8.

Tenoning spindle - control

Adjustment is performed pneumatically by operating the appropriate pushbutton (up - down) on the console. The height adjustment of the spindle is max. 130 mm. Within this range, the fixed stops 4 + 5 can be set by means of a hand crank that must be put on the square end of spindles 1 and 2.

The lower limit is determined with the right-hand spindle 1 and the upper limit with the left-hand spindle 2. One revolution of the hand crank corresponds to a path of 2 mm of the fixed stops. When the stops have been set the flanges attached to the spindle are securely clamped with a star grip 3, thus preventing the stops from shifting.

Tool change

In order to be able to perform a tool change, the knob 6 must be pushed inwards and turned clockwise by 1/4 of a revolution.

In order to reach lubrication points I and II the lefthand door of the switch cabinet attached to the rear of the machine must be opered to provide access for lubrication.

In order to access the lubrication point I, the bearing housing must be set to half the height adjustment path where this lubricating point then becomes visible.

The lubricating points III (drawn offset 180°) and IV are outside of the machine and are easy to reach.

A grease gun is required for lubricating the machine. The lubricating points I and IV must be lubricated after about 1000 operating hours with 1 - 2 grease gun shots.

As soon as too much grease is in the bearing, the bearing regulates the amount of grease on its own and thus prevents the bearing from heating up. Bearing damage cannot occur by injecting too much grease.

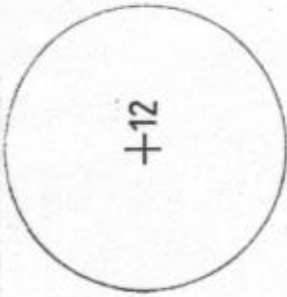
The lubricating points I and III must be relubricated weekly. Only good solid grease should be used with softening point not below 120°C .

A very suitable grease is: KLÜBER LUBRICATION Isoflex LDS 18
Spezial A

Klüber Lubrication München GmbH
Geisenhausenerstr. 7
8 0 0 0 München 70

No guarantee can be accepted for the bearing if unsuitable geesees are used.

emergency stop



automatic I
0

+6

Start

+10

air missing

+1



+2



+9

motors off

+11



+2

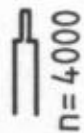


+2



n=3000

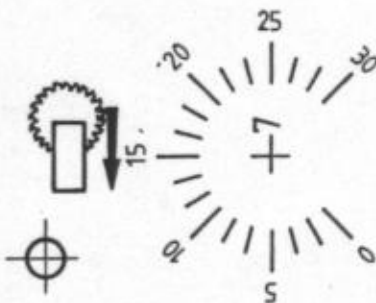
+4



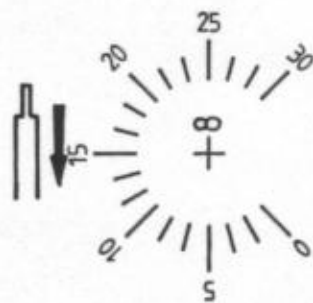
n=4000

+5

1 cut-off
2 cut-off and tenon



+7



+8



+3

OKOMA

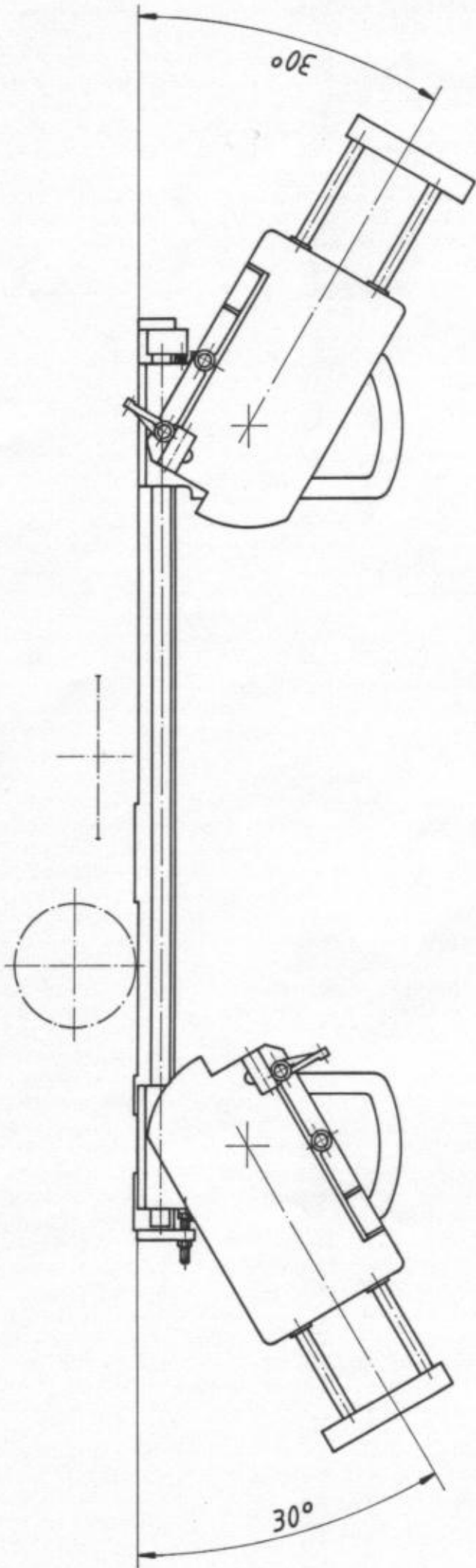
1. Kontrolle "Pressluft fehlt"
2. Stellung der Schlitzspindel vorwählen
3. Wahlschalter 1 bzw. 2
4. Säge einschalten
5. Schlitzspindel einschalten
6. Automatik 0 bzw. I
 - bei I: Hubwechsel erfolgt automatisch von Stellung oben nach unten bei 2-fach Hub
 - bei 0: Hubwechsel erfolgt automatisch von oben in die mittlere Stellung bei 3-fach Hub
7. Vorschubgeschwindigkeit des Rollwagens durch die Säge
8. Vorschubgeschwindigkeit des Rollwagens durch die Schlitzspindel
9. Spannen
10. Start (Rolltischbewegung automatisch)

11. Zum Ausschalten der Maschine "Antriebe Aus" betätigen
12. Den " "Not - Aus" nur im Notfall benützen!

1. The machine must be connected by an electrician after checking the direction of rotation of the motors.
2. When rectifying any faults, the main switch must be switched off. It must be secured to prevented from switching on again.
3. For reasons of working safety and quality, both clamping cylinders must always be set such that the spacing between workpiece and clamp is no more than 8 mm.
4. The permissible maximum speed of the tools that are used must always be observed.
5. Only sharp tools in perfect condition may be used.
6. The cover over the parting saw must always be appropriate for the wood thickness.
7. The machine may be operated only with the safety equipment supplied.
8. The compressed air should be supplied through a fixed pipe connection.

tenoning spindle
Schnitzwerkzeug

saw blade
Sägeblatt



Index	Änderung	Datum	Name	Passung	Abmaß	Passung	Abmaß
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
OKOMA Maschinenfabrik GmbH 7082 Oberkochen							
Type: _____ Nr.: _____							
Rolltisch, schwenkbar							

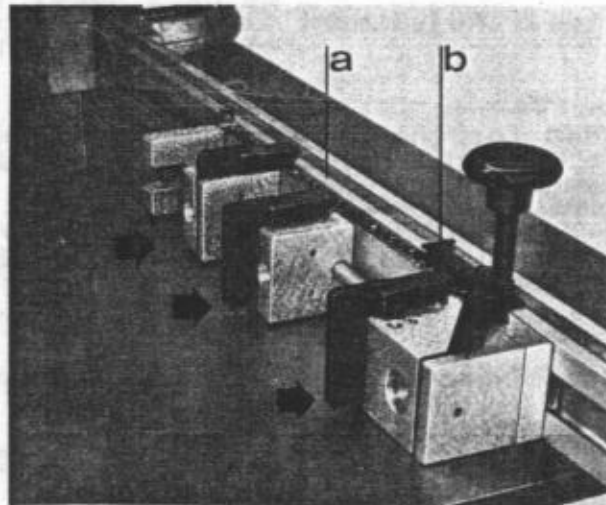
Operating Instructions

Setting the length stop LAS to external dimensions

The FESTO length stop LAS has been developed for sets of tools matched for height and diameter.

First move the scale (a) against the inwards sloping tooth of the saw blade. Then adjust the indicator (b) on the stop slide to dimension 1,250 mm.

Now pull back the scale until the indicator registers against dimension 1,000 mm.



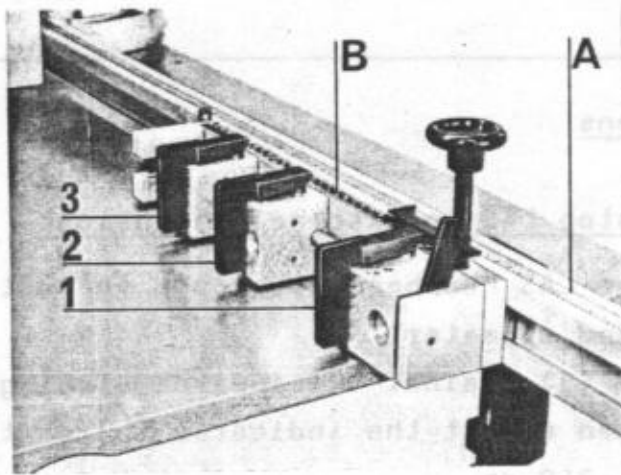
Once the scale has been adjusted, firmly screw it down with the knurled head screw.

This procedure compensates for the shortening of the scale by 250 mm.

1. Processing single pieces of timber:

Adjust the indicator on the stop slide against the scale to the internal width of the wall opening, or to the external size of the frame by moving stop 1.





The stop dogs 2 and 3 are adjustable, and must be set according to the width of the timber less the 'air gap' (between the sash and the frame). Adjustment is made with reference to scale B.

Stop dog 2 is intended for the sash width, and stop dog 3 for the height of the sash.

The following basic rule applies to calculating the distance between the frame outside and the sash outside (height and width):

Twice the frame width minus 78 mm = sash width
 Twice the frame width minus 51 mm = sash height

Example:

The following example assumes a frame width of 80 mm.
 $2 \times 80 \text{ mm} = 160 \text{ mm}$, minus 78 mm = 82 mm sash width = distance between centres of stop dogs 1 and 2.
 $2 \times 80 \text{ mm} = 160 \text{ mm}$, minus 51 mm = 109 mm sash height = distance between centres of stop dogs 1 and 2.

These examples only apply if the sash and frame timbers have been planed out to the same width. In the case of insulating glass windows, the width of the sash timber reduces by 4 mm due to the elimination of the glass strip, and the external processing. The above example is particularly recommended in

the interests of rational production. If, however, different sash and frame widths are to be manufactured, then the position of the cut-off saw must be altered accordingly. In this case the following basic rule applies:

Twice the frame width minus 78 mm, minus the amount of cut-off saw adjustment = sash width.

Twice the frame width minus 51 mm, minus the amount of cut-off saw adjustment = sash height.

Example:

Assumed width of frame = 90 mm

Assumed width of sash = 80 mm

$2 \times 90 \text{ mm} = 180 \text{ mm}$, minus 78 mm = 102 mm, minus 10 mm = 92 mm
sash width = distance between centres of stop dogs 1 and 2.

$2 \times 90 \text{ mm} = 180 \text{ mm}$, minus 51 mm = 129 mm, minus 10 mm = 119 mm
sash height = distance between centres of stop dogs 1 and 2.

The dimension 10 mm is the difference in size between the width of the sash and the width of the frame.

2. The following example shows how frame timbers are machined in pairs in a single working pass using the multiple stop on the FESTO ZA-2 S 4.

If it is required to machine frame timbers in pairs, then the Festo length stop LAS with multiple stop facility should be used.

The ring stop dogs 1, 2 and 3 are adjusted in the same manner as described above.

The glass size is set on slide C, from which it can be read off.

