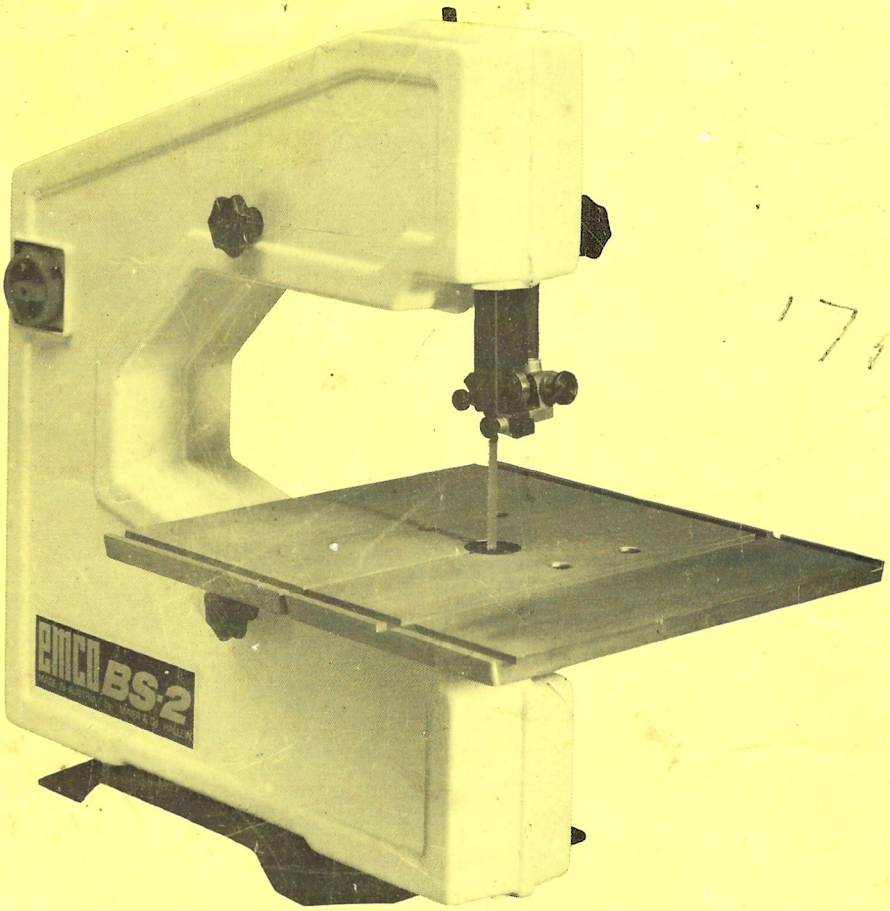
Instruction book

Service parts



emco BS-2

ENGLISH

Edition 78 01 Ref. Nr. EN 2680

Maier + Co.
A-5400 Hallein/Austria

TECHNICAL DATA

Maximum cutting height:	5,7" (145mm)
Throat:	14,3" (360mm)
Size of table:	15,7"x15,7" (400x400 mm)
Tilt of table:	0° – 45°
Roller diameter	6,7" (170 mm)
Band saw blades:	70" (1783mm) endless
Weight:	26 kg

Cutting speeds:

120 m/min:[1])	for cutting metal
750 m/min:[1])	for cutting plastics
1200m/min: [1])	for cutting wood

Electrical Equipment:

Version 1 [2])

Standard electrical equipment

Motor: single - phase

Motor capacity:	370 W
Voltage:	100,110,115,220,230, 240,250 V [3])
Frequency:	50,60 cycles [3])
Motor speed:	1400 rev/min [3])
Intermittant duty :	100%
Dust- and splashproof housing according to:	IP - 54

Switch:

Main switch with ON and OFF function

dust and splashproof according to IP – 54

Version 2 [2])

Special safety electrical equipment according to VDE 0113 and 0740

Motor: single phase

Motor capacity:	370 W
Voltage:	220 V
Frequency:	50 cycles
Motor speed:	1400 rev/min
Intermittant duty:	100%
Dust- and splashproof housing according to:	IP - 54

Switch:

Lockable safety switch with emergency ON/OFF switch and low-volt release, dust and splashproof according to IP – 54

1) These values (speeds) are 20% higher with a 60 cycle machine.

2) The electrical equipment is different in Version 1 and Version 2 in order to comply with safety standards in different countries.

3) The machine is equipped with the respective electrical requirements voltage (V) and frequency (cycles) for the country delivered to.

BAND SAW BLADES

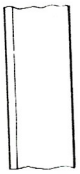
Band saw blade, for wood and plastics, 6 mm wide, 0,4 mm thick, for contour cutting

Band saw blade, for wood and plastics, 10 mm wide, 0,4 mm thick, for rip and cross cuts

Band saw blade, rustproof steel

Band saw blade, for metal, 5 mm wide, 0,4 mm thick

KNIFE BLADES



Knife blade, standard, for cutting leather, felt, foam rubber, styrofoam, etc.

Knife blade, rustproof steel

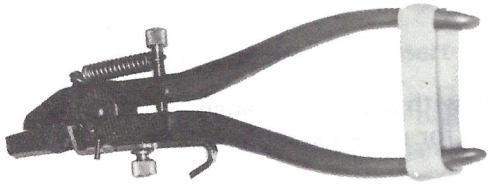
SANDING BELT

Sanding belt, endless, 15 mm wide

LUBRICANT

Silbergleit, non-adhesive, dry lubricant

TOOLS



Saw set pliers

Three-cornered file

Truing stone

ELECTRICAL CONNECTIONS

As there are so many different types of plugs, the machines is supplied with loose cable ends. The band saw should only be plugged into sockets with protective plug reception installed according to safety regulations.

Mounting of the plug:

The green/yellow wire of the cable (grounding) must be connected accordingly to the protective contact of the plug. The protective contact on the plug is marked with the symbol ⏚ . The other two wires (blue,brown) are connected to the other contact points.

SETTING UP THE MACHINE

The machine can stand firmly on somewhat uneven surfaces because of the three-point contacts. A cushioning of 2-3mm felt is recommended to decrease background noises. The base of the machine contains 3 holes for mounting the machine. Firm mounting is necessary when sawing heavy workpieces.

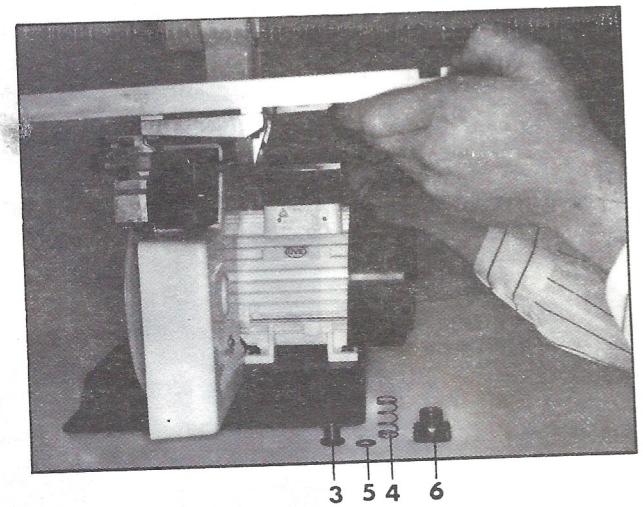
Recommended table height: 700 – 800 mm

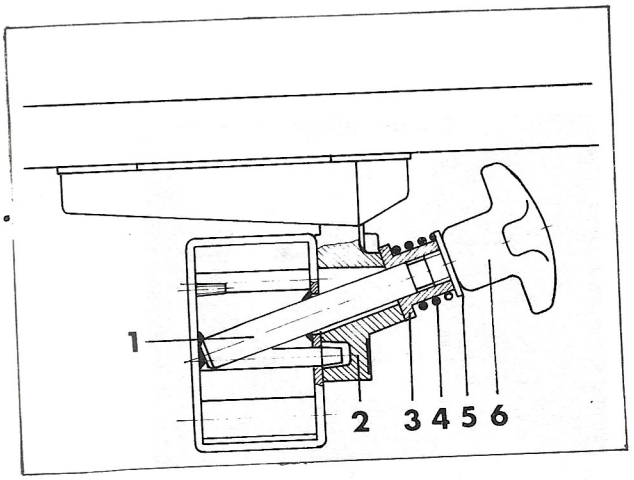
Band sawing

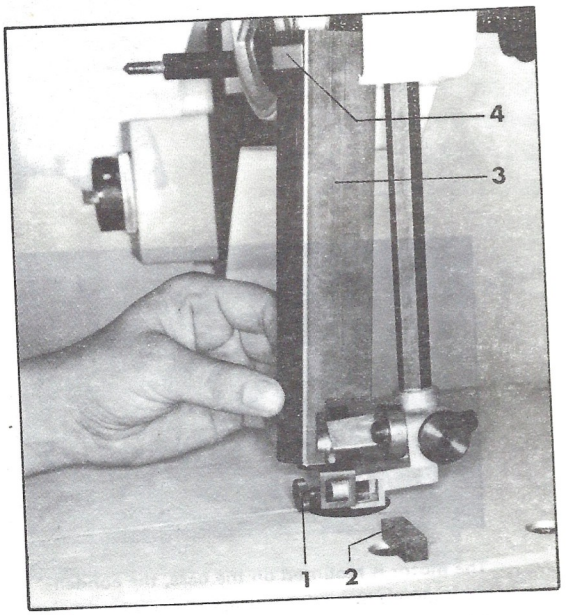
PREPARING THE MACHINE FOR OPERATION

MOUNTING THE BAND SAW TABLE

The swivel element of the table (2) is put onto the pin (1) and clamped with the spring bush (4), the washer (5) and the star knob (6). The compression spring (4) serves for clamping safety. The surface between swivel element and frame should be lubricated with " Silbergleit" after approximately 50 hours of operation. "Silbergleit" has the advantage that it does not leave any spots on wood, which could later re-appear during varnishing or enameling.



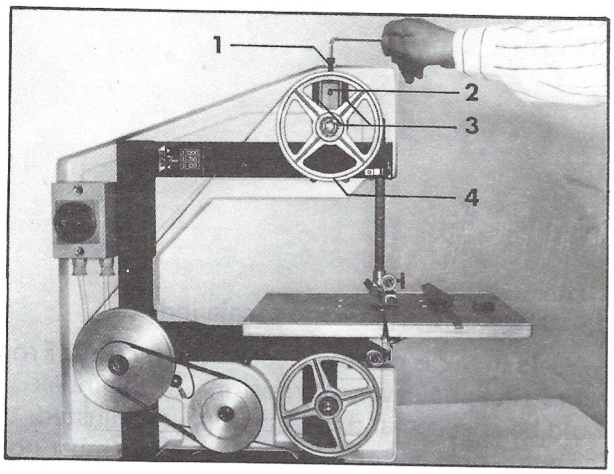




MOUNTING THE BAND SAW BLADE

Removing the Blade Guard:

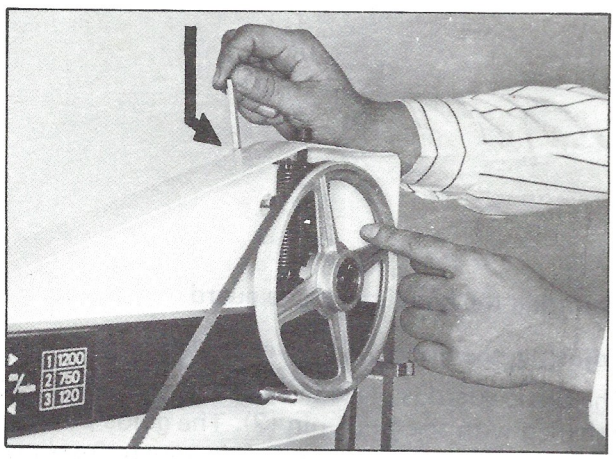
Both star knobs are loosened and the housing cover is removed. The upper guide head is lowered to the table. After loosening the knurled screw (1) the guide pin (2) is removed sideways.
The band saw blade guard (3) is dismounted by pulling it out of the angle sheet iron (4) towards the front.



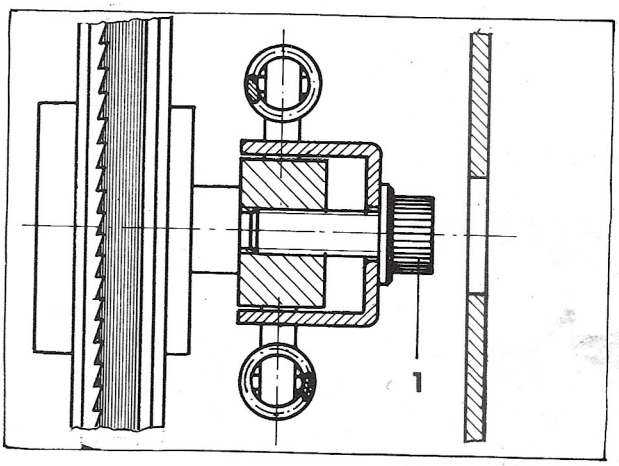
Mounting the Blade:

By turning the Allen head screw (1) clockwise, the upper band saw wheel (4) is lowered. The band saw blade is placed onto the wheels. The teeth of the band saw blade must point downwards. It can happen that the blade is delivered with teeth upwards in which case the blade must be inverted. The Allen head screw (1) is screwed upwards (counterclockwise) so long until it no longer preses against the slide (2).
The blade is then constantly tensioned by the two compression springs (3).

Adjusting the Position of the Band Saw wheel:

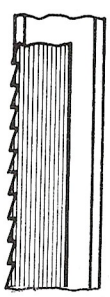


The upper band saw wheel is turned/clockwise with the hand; at the same time the position of the band saw blade is adjusted with the Allen head screw (1).



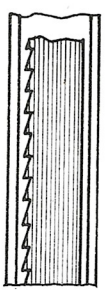
If the screw (1) is turned clockwise, the blade moves to the right. (If counterclockwise, then to the left).

Correct and incorrect position of the band saw blade:



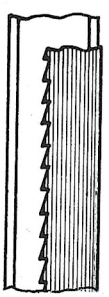
INCORRECT:

The blade is too far to the left: It could run off. In addition, it is not completely supported by the guide pins.



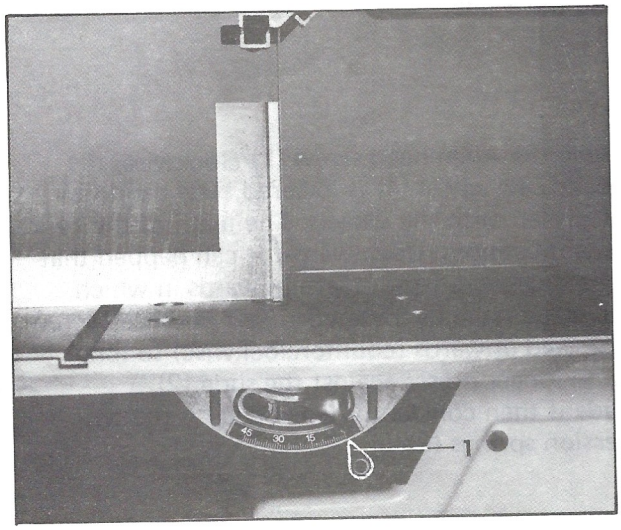
CORRECT:

The band saw blade runs in the middle of the wheel tread coat.



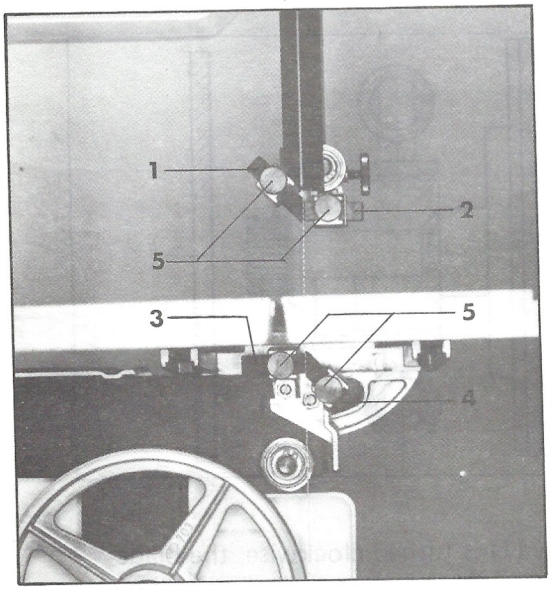
INCORRECT:

The blade is too far to the right: it could run off. In addition, it would damage the guide pins.



Adjustment of the graduated scale index:

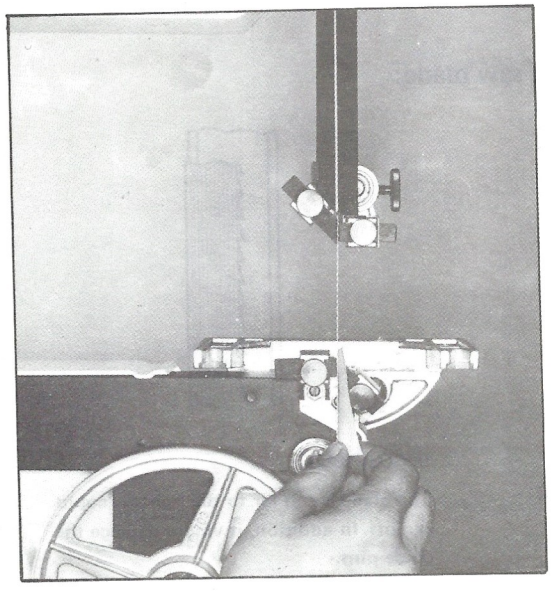
The scale index is correctly set in the factory. From time to time, however, the position of the index should be checked and, if necessary, re-adjusted. (The guide pins and the rear guide rollers must not be in contact with the saw blade during re-adjustment).



Mounting the band saw blade guard

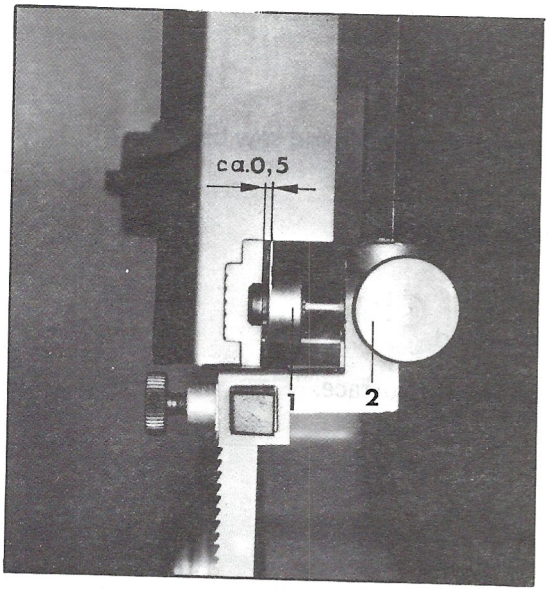
Adjusting the upper and lower guide pins:

The blade guard is placed in the angle sheet iron and tighened with the guide pin (2). The guide pins (1,2, 3,4) are positioned so as to lightly touch the blade, but not clamp or move the blade to the side. The guide pins are then fixed with the knurled screw (5).



To check if the guide pins are not too close to the blade, a piece of paper can be inserted between the blade and guide pins.

(Table is dismounted for demonstration purposes).



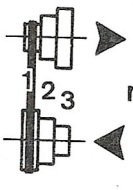
Adjustment of the rear guide rollers:

The rear guide rollers absorb the feed pressure of the workpiece.
The upper and lower rear guide roller (1) are fixed with the knurled screw (2) so that the distance between roller/blade when not in operation is approximately 0,02" (0,5mm). For adjustment the upper band saw wheel is turned with the hand.

OPERATING TIPS

THE BAND SAW SPEEDS

The three band saw speeds are attained through shifting the round belt.
The speeds are indicated on the tubular steel frame.



m/min

1	1200
2	750
3	120

The speed must match the material which is being worked on.

Speed 1200 m/min (belt position 1) : for cutting wood

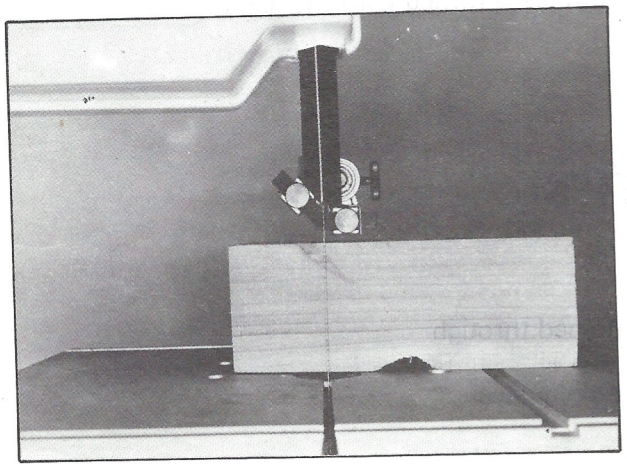
Speed 750 m/min (belt position 2) : for cutting plastics

Speed 120 m/min (belt position 3) : for cutting metal

THE FEED

The feed is the movement of the workpiece toward the tool (band saw blade).
General rules for band sawing are:

* the harder and thicker the material, the slower the feed
* the lower the speed, the slower the feed
* the smaller the radius to be cut, the slower the feed
* the slower the feed, the smoother and evener the cut surface.



FIXING THE UPPER GUIDE HEAD

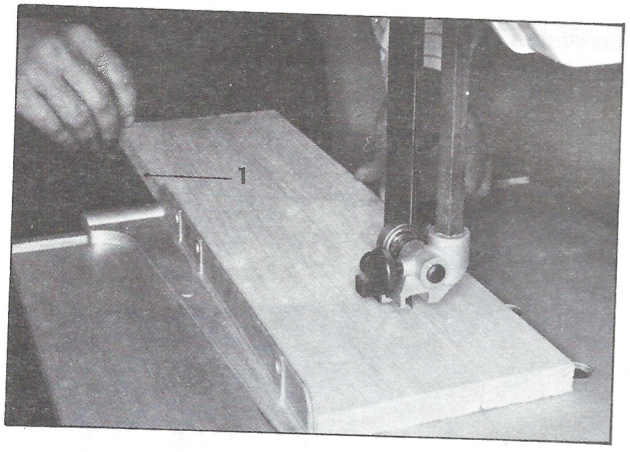
The upper guide head should always be clamped so that the distance between workpiece surface and guide head is as small as possible.
By clamping the guide head near the surface, the blade is well-guided and is guarded above the cutting surface.

GUIDELINES FOR THE SMALLEST RADIUS DEPENDING ON THE WIDTH OF THE BAND SAW BLADE

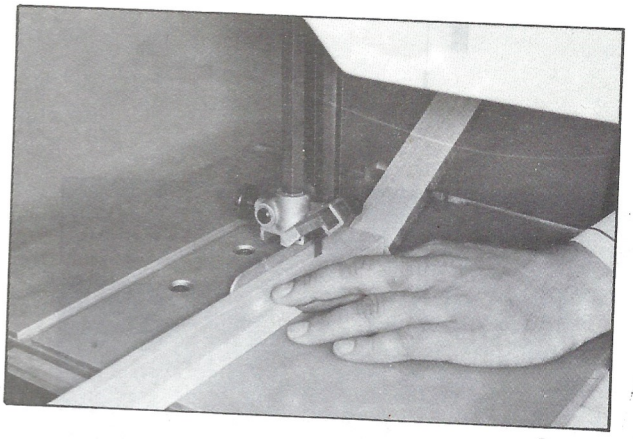
width of band saw blade	smallest radius
6 mm	20 mm
10 mm	30 mm

Operating tips

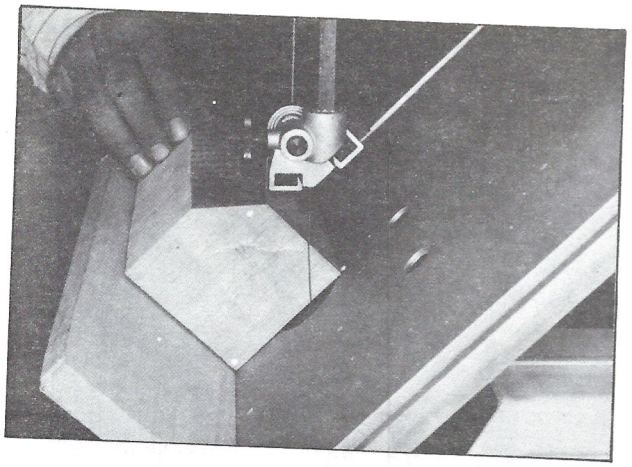
RIP CUTS



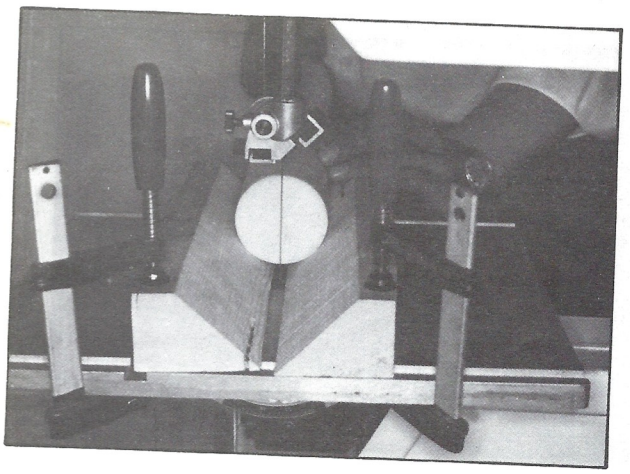
For ripping narrow workpieces, it is recommended that a pusher be used toward the end of the cut.



Depending on the shape of the workpiece, the adjustable fence is fixed in the front or back slot of the table.
The contact surface of the workpiece (1) and the adjustable fence must be straight otherwise exact cut widths cannot be achieved.

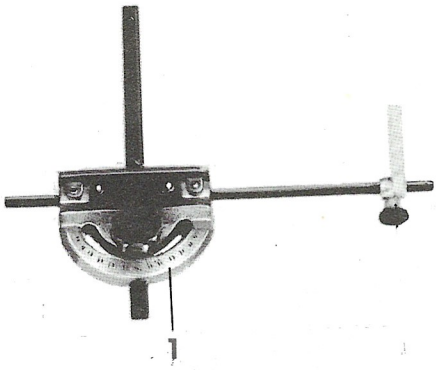


An additional self-made fence is screwed onto the fence. The contact surface is increased, therefore allowing better guidance of large workpieces.

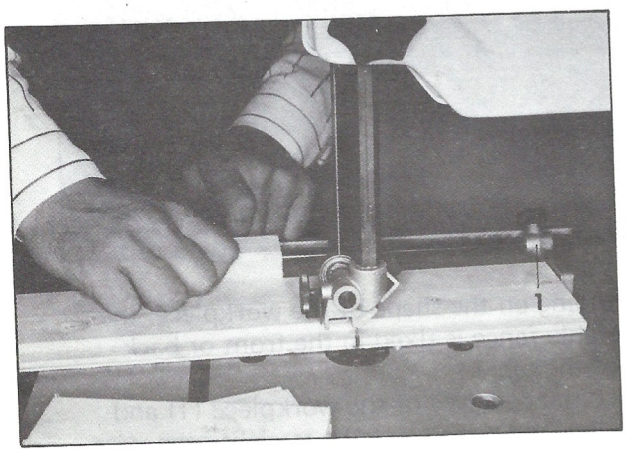


For cutting of round materials, two self-made wooden ledges are clamped onto the table. Good guidance of the workpiece is thereby guaranteed.

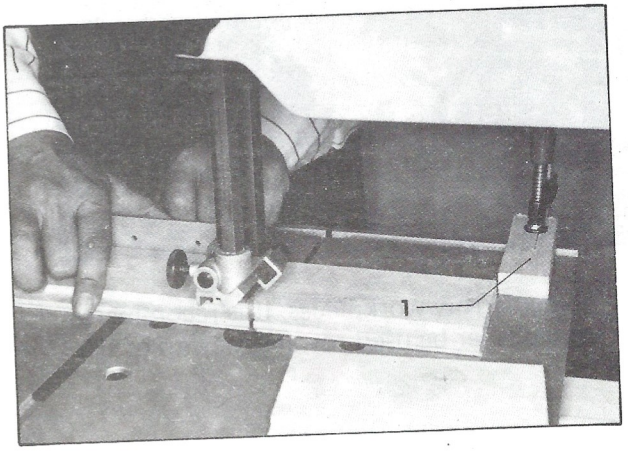
CROSS CUTS – USE OF THE MITRE GAUGE



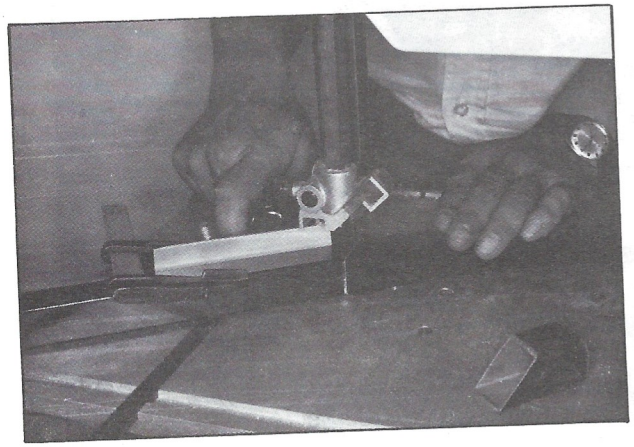
With use of the mitre gauge accurate right angle cuts and other mitre cuts can be made. Depending on the shape of the workpiece, the ruler of the mitre gauge is inserted so that the contact surface of the mitre gauge faces front or back. The groove should be coated with "Silbergleit" to allow easy sliding of the mitre gauge. The graduated scale (1) allows accurate adjustment of the desired angle.



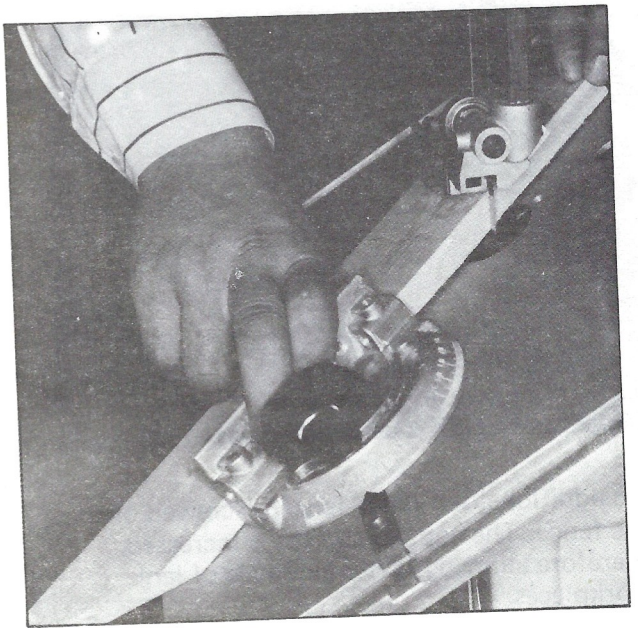
With aid of the fence (1) on the mitre gauge, workpieces of identical lengths can be cut.



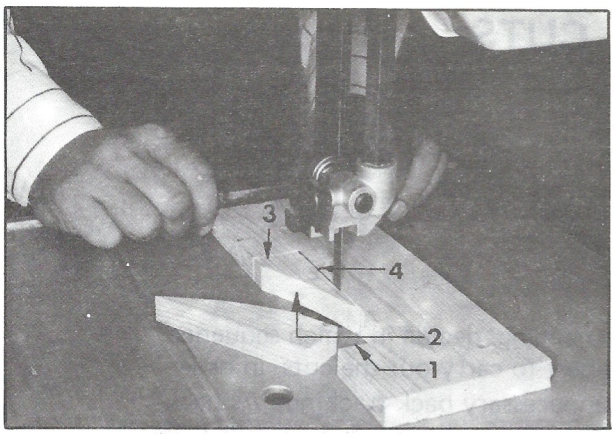
A piece of wood is clamped to the table at the required distance from the blade.



For cutting metal it is advantageous to clamp the workpiece to the mitre gauge. This is especially important when cutting angles.

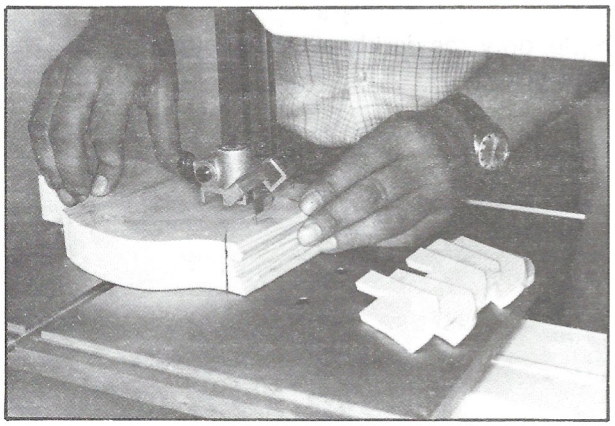


The table is tilted.

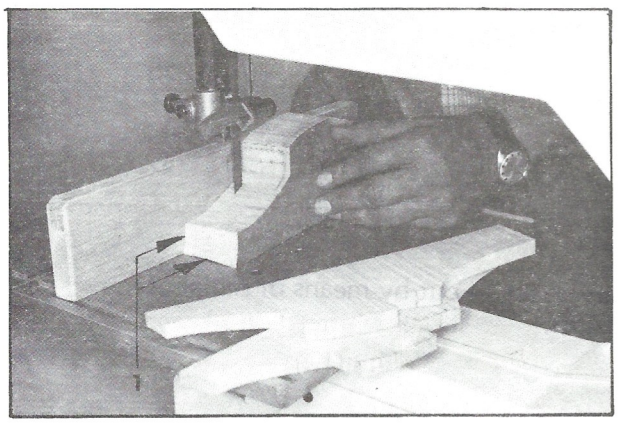


Corners can be cut very easily with the band saw. Sequence of cuts: 1,2,3,4. (For better demonstration, the upper guide head has been moved up).

CUTTING IDENTICAL WORKPIECES

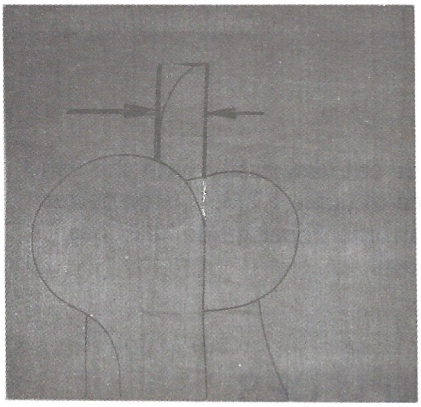


The boards are nailed together first and then the profile cut.

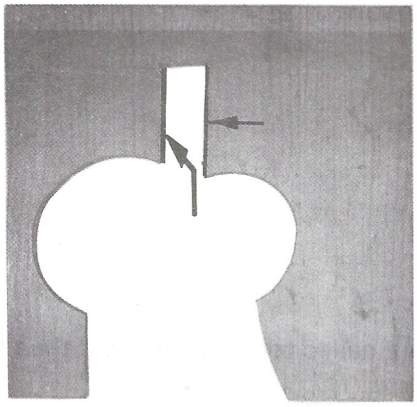


The profile is cut in one block. Then with the aid of the fence the workpiece is divided into workpieces of the required thickness.
For this method there must be at least two straight contact surfaces (1).

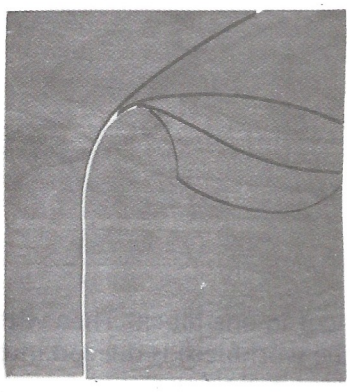
CONTOUR CUTS



Before commencing, decide in which sequence it would be best to carry out the cuts, in order to prevent unnecessary back-tracking . As back-tracking cannot always be avoided, all cuts have to be considered and carried out in a logical sequence, in a way that the back-tracking has to be done over the shortest possible distance.

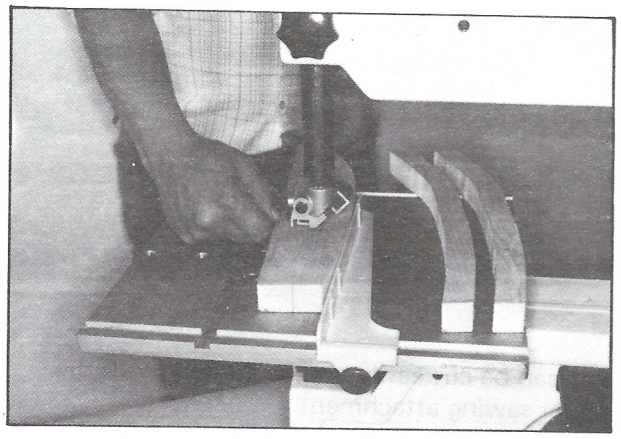


In this example, only the darkly accented cuts must be back-tracked.



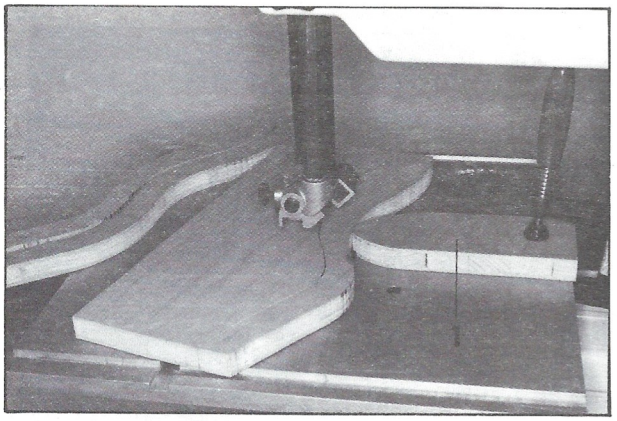
Tighter curves can be cut by means of radial or tangential cuts.

OPERATIONS WHICH REQUIRE SOME PRACTICE



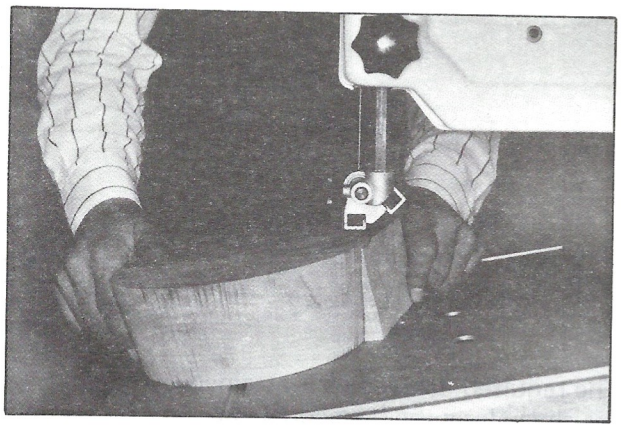
The required profile is drawn on the workpiece and freely cut once.
Then the fence is clamped at the required distance from the blade (= width of workpiece).
The workpiece is fed at the same level of the blade and cut.

Only external curves can be cut with this method.



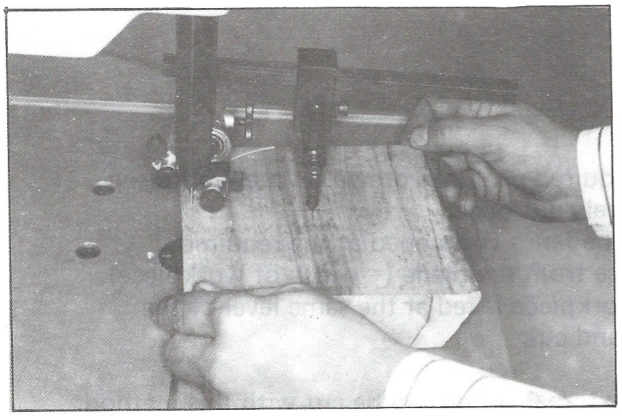
A piece of wood which has been curved at the front (1) is clamped to the table at the same level as the blade. (Distance between blade / curved piece of wood = width of workpiece).
The workpiece with the already cut profile is fed along the curved piece of wood.
External and internal curves can be cut.

CIRCULAR SAWING



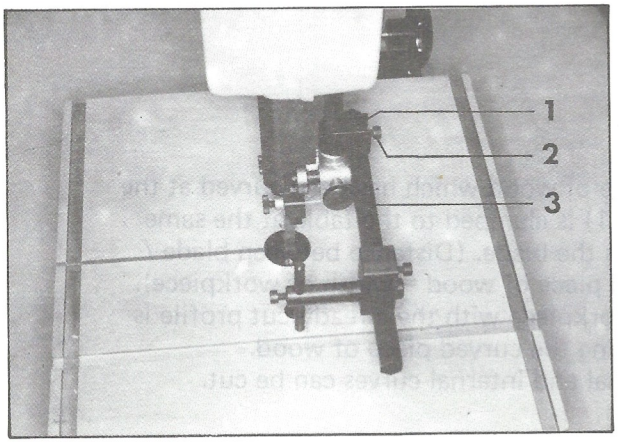
The circle to be cut is drawn with a compass.
The contact surface of the workpiece/table must be level, otherwise the blade will jam.

CIRCULAR SAWING WITH THE CIRCULAR SAWING ATTACHMENT

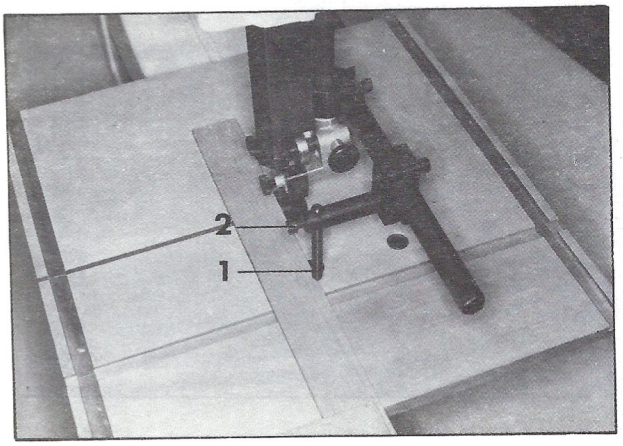


Discs can be cut easily and accurately with the circular sawing attachment.

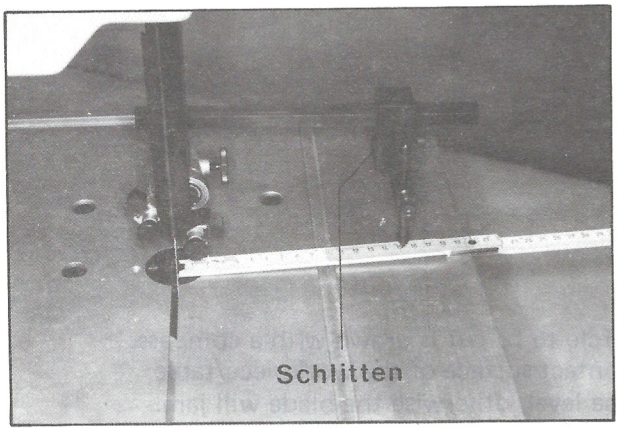
Mounting of the circular sawing attachment:



The clamp (1) is put on the hexagonal bar of the guide head, the hexagonal bar of the attachment (3) is inserted into the hexagonal holes of the clamp and fixed with the Allen head screw (2).

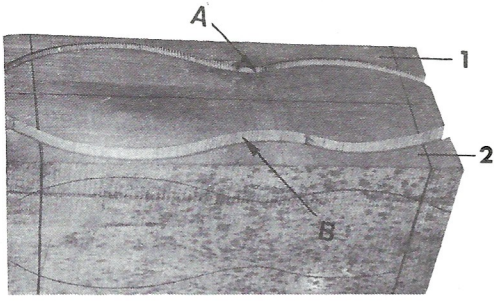


The center (1) is fixed with the Allen head screw (2) at the level of the blade teeth. An angle simplifies adjustment.



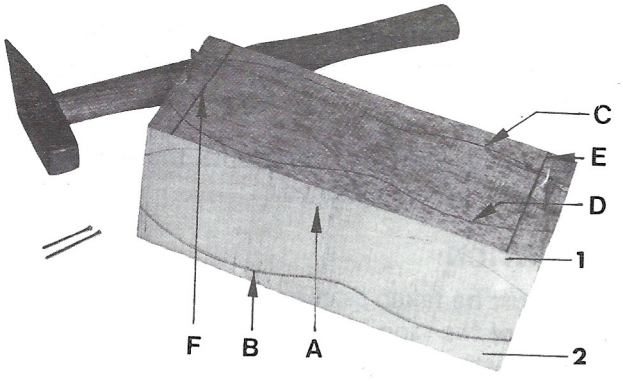
The required disc radius is attained by moving the slide along the hexagonal bar.

MACHINING WORKPIECES ON ALL SIDES



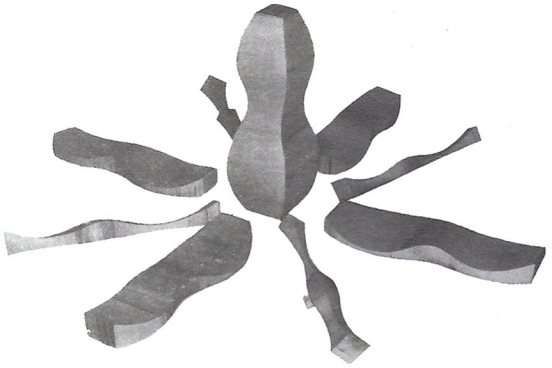
For machining workpieces on all sides, the marked and contact surfaces are cut off.

The profile is drawn on two sides of the block. The first two cuts (A,B) are made.

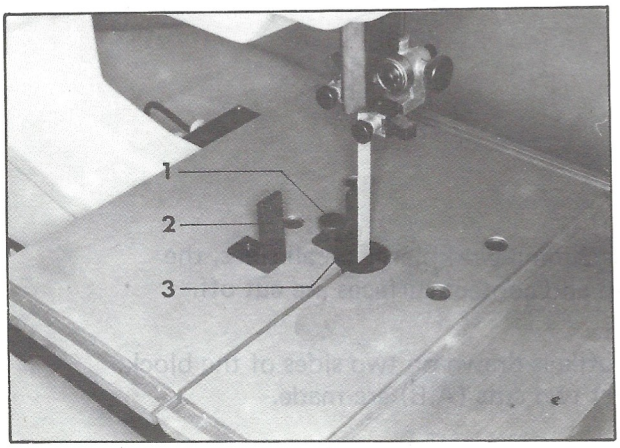


The two cut-off pieces (1,2) are nailed onto the block again and cuts C,D,E and F made.

The nails are inserted outside the planned contours (outside cut lines E,F) so that the workpiece is not damaged by the nails.



Form sanding

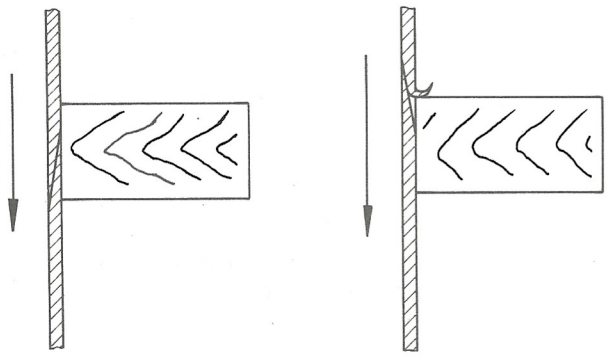


Depending on whether straight or curved surfaces are to be sanded, either the straight (2) or the curved belt support (3) is mounted on the band saw table with the knurled screw (1). The threaded hole for the knurled screw must be cleaned of all dust and grit to prevent damage of the threads.

MOUNTING THE SANDING BELT

Mounting the belt, tensioning and adjusting correct running on the band saw wheel are carried out the same way as with the band saw blade.
The guide pins and the rear guide rollers must, however, be fixed so, that they do not touch the sanding belt.

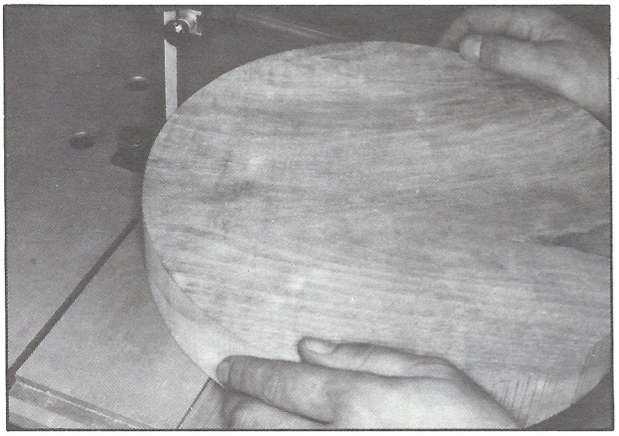
After completion of sanding work the sanding belt should be re-tensioned.



CORRECT INCORRECT

ATTENTION:

Care must be taken as concerns the bonded overlap of the sanding belt (see illustration). If incorrectly mounted, the belt would tear at this overlap.



OPERATING TIPS

Belt speed 1200 m/min
(belt position 1)

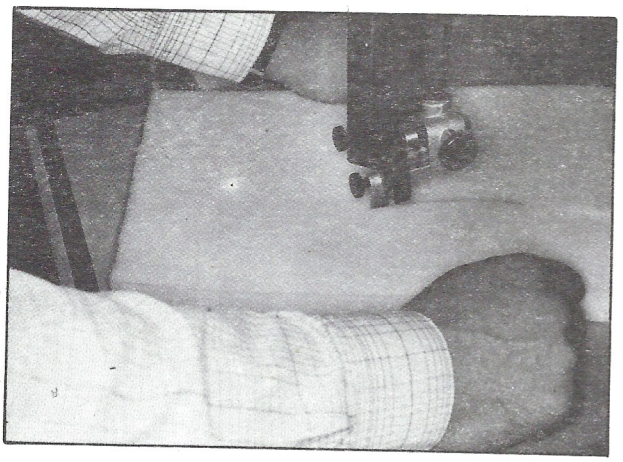
The sanding pressure should be even and not too hard. The workpiece must be guided firmly.

ACCIDENT PREVENTION

* check mounting of the sanding belt with regard to the overlap
* never use torn belt
* guide workpiece firmly
* the band saw guard should cover the sanding belt as much as possible

Cuts with knife blades

Leather, felt, foam rubber, styofoam, etc. can be cut with the knife blades.
Mounting of the knife blades is carried out the same way as with the band saw blades.

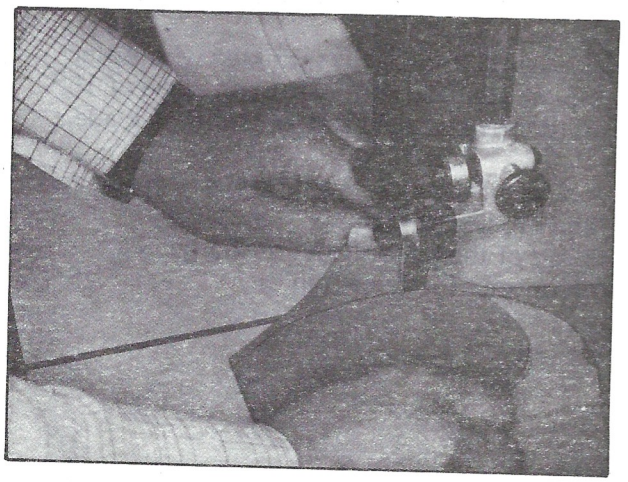


GUIDELINES BLADE FOR SPEEDS

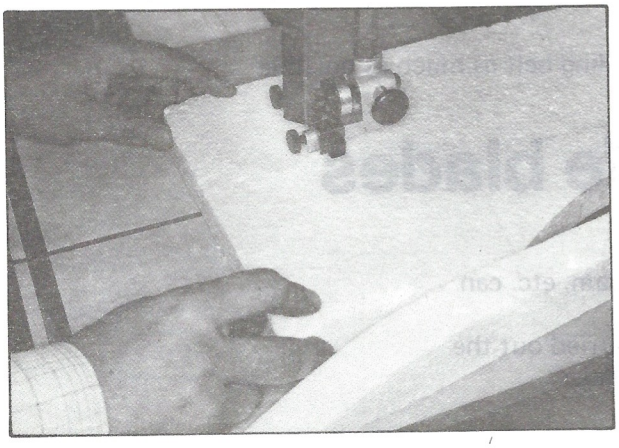
foam rubber:

up to 1,2'' (30 mm) thick 1200m/min
(belt position 1)

more than 1,2'' (30mm) thick 750m/min
(belt position 2)

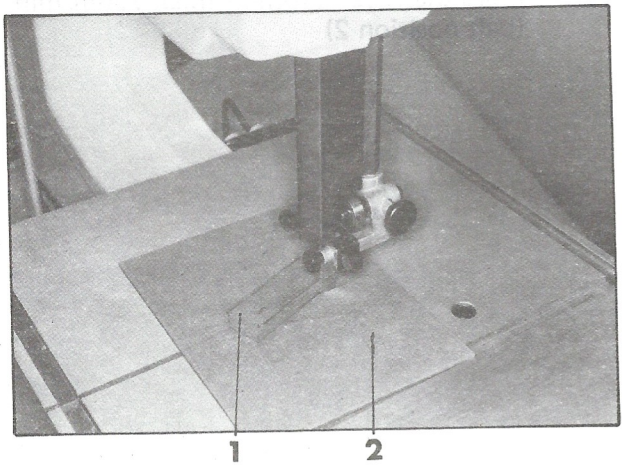


leather, felt: 750 m/min
(belt position 2)



styrofoam: up to 2'' (50mm) thick 750 m/min (belt position 2)

more than 2'' (50mm) thick 120 m/min (belt position 3)



SHARPENING THE KNIFE BLADES

The truing stone (1) is sprinkled with water and moved back and forth at an angle of 15° on the left and right side of the knife blade.

A piece of cardboard (2) is used to guard the table from scratches.
Speed of the knife blade for sharpening: 120 m/min (belt position 3).

Maintenance and service

CLEANING THE PLASTIC HOUSING

The plastic housing can be cleaned the best with soapsuds. Stubborn spots also be removed with spirit alcohol or benzine. In no case whatsoever should acetone, nitrobenzine or concentrated alcohol be use.
After cleaning, the moistened metal parts should be coated with light machine oil.

FILING OR REPLACING THE GUIDE PINS

The guiding surfaces of the guide pins must be even, otherwise the blade will be guided poorly — a good cutting quality cannot be attained. Worn - out guide pins can be refiled (taking care of correct angle) or, if they are already too short, replaced by new ones.

REPLACING THE PLASTIC INSERT OF THE BAND SAW TABLE

If the guide pins are not adjusted correctly towards the band saw blade, the blade moves sideways. The result is, that the table insert is damaged. Cut and worn-out table inserts must be replaced by new ones. (See Accident Prevention).

REPLACING THE REAR GUIDE ROLLERS

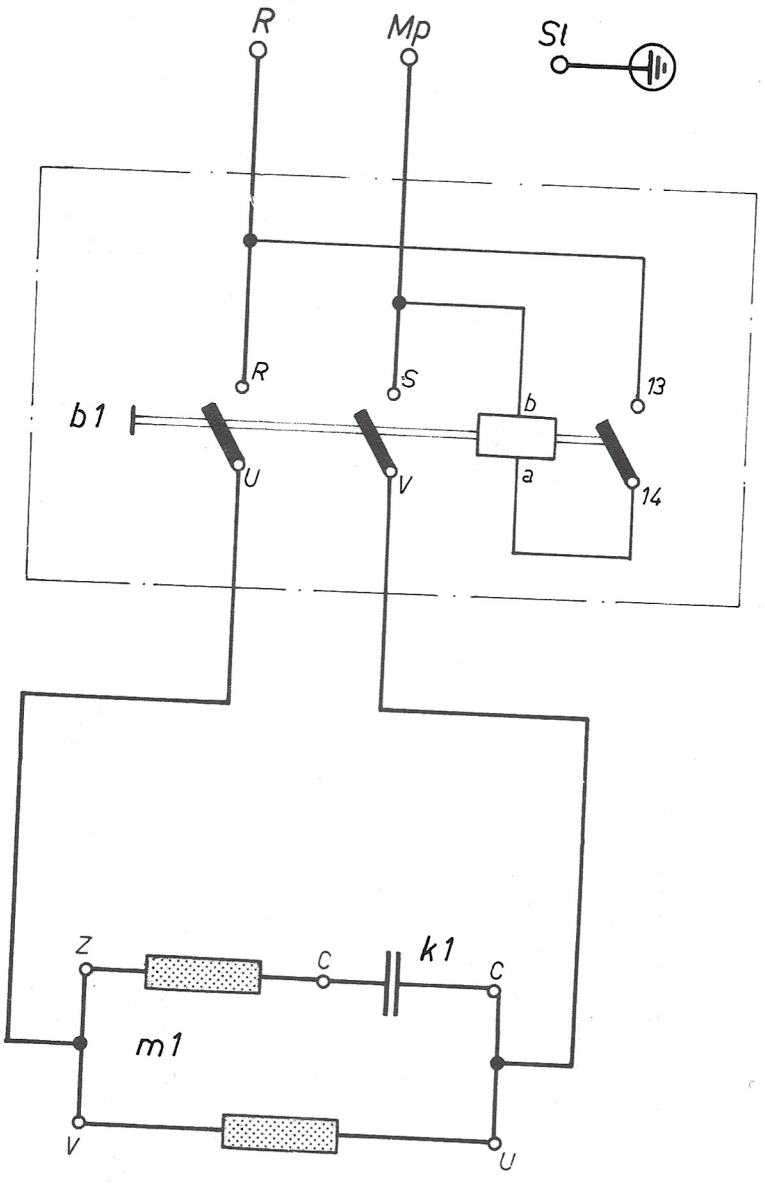
During cutting the rear of the saw blade runs on the external ring of the rear guide roller. This external ring is subject to natural wear. When the external ring shows notches or does not support the blade correctly anymore, the rear guide roller must be replaced.

SHARPENING AND SETTING THE BLADE TEETH

Before sharpending dull blades the teeth must be set correctly. This is done with the saw set pliers. Sharpening is done by moving the file in the direction of the tooth setting. This creates a raised edge on the outser side of the tooth which increases the cutting capacity of the tooth. In no case whatsoever should sharp - edged files be used for sharpending. A sharp-edged tooth base would encourage ripping of the blade.

WIRING DIAGRAM
EMCO BS–2

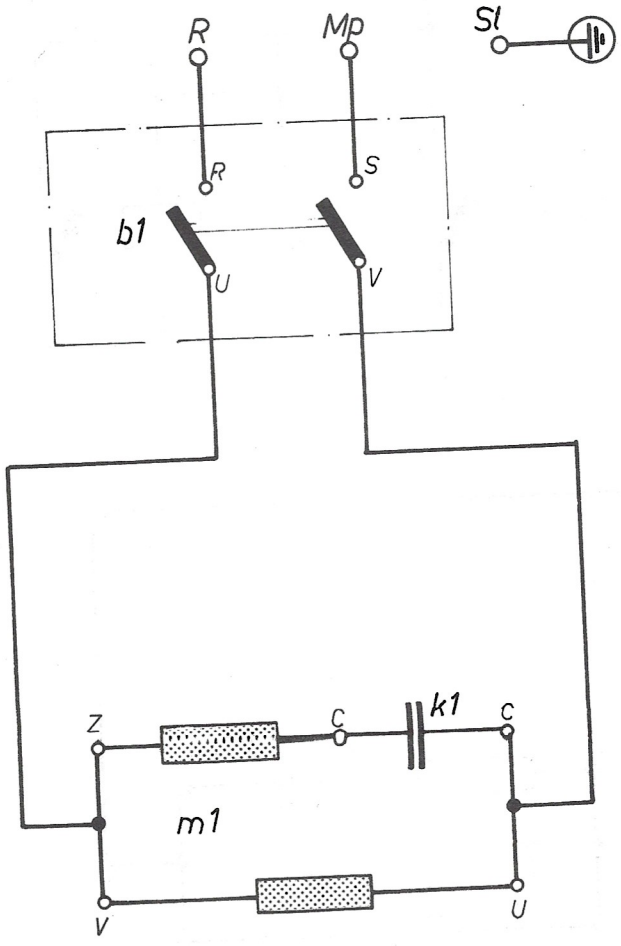
single-phase VDE



b1 Emergency OFF Main Switch with low-volt release
k1 Condensor
m1 Motor

WIRING DIAGRAM
EMCO BS–2

single-phase Standard

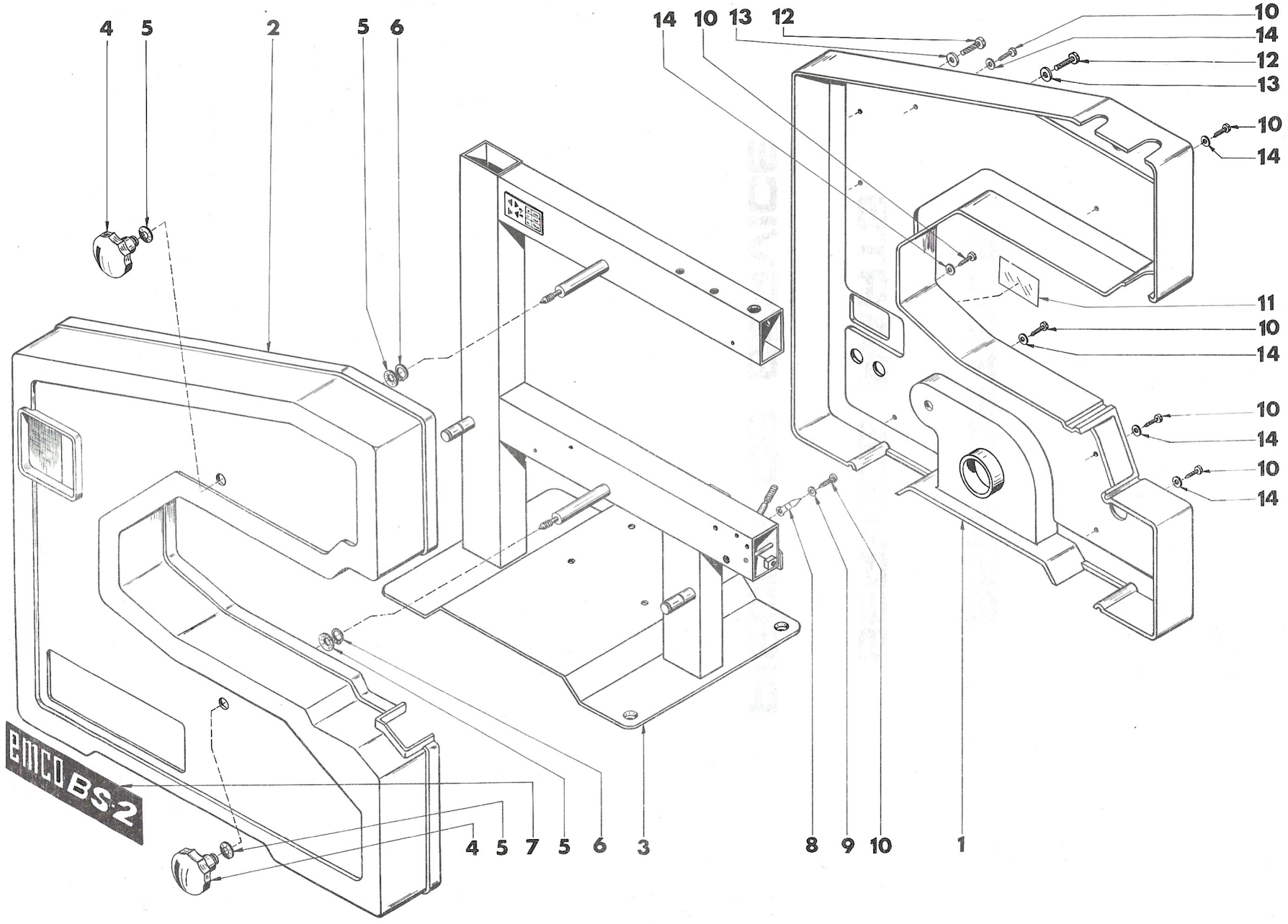


b1 Main Switch
k1 Condensor
m1 Motor

SERVICETEILE

SERVICE PARTS

PIECES DE SERVICE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BMCO BS-2
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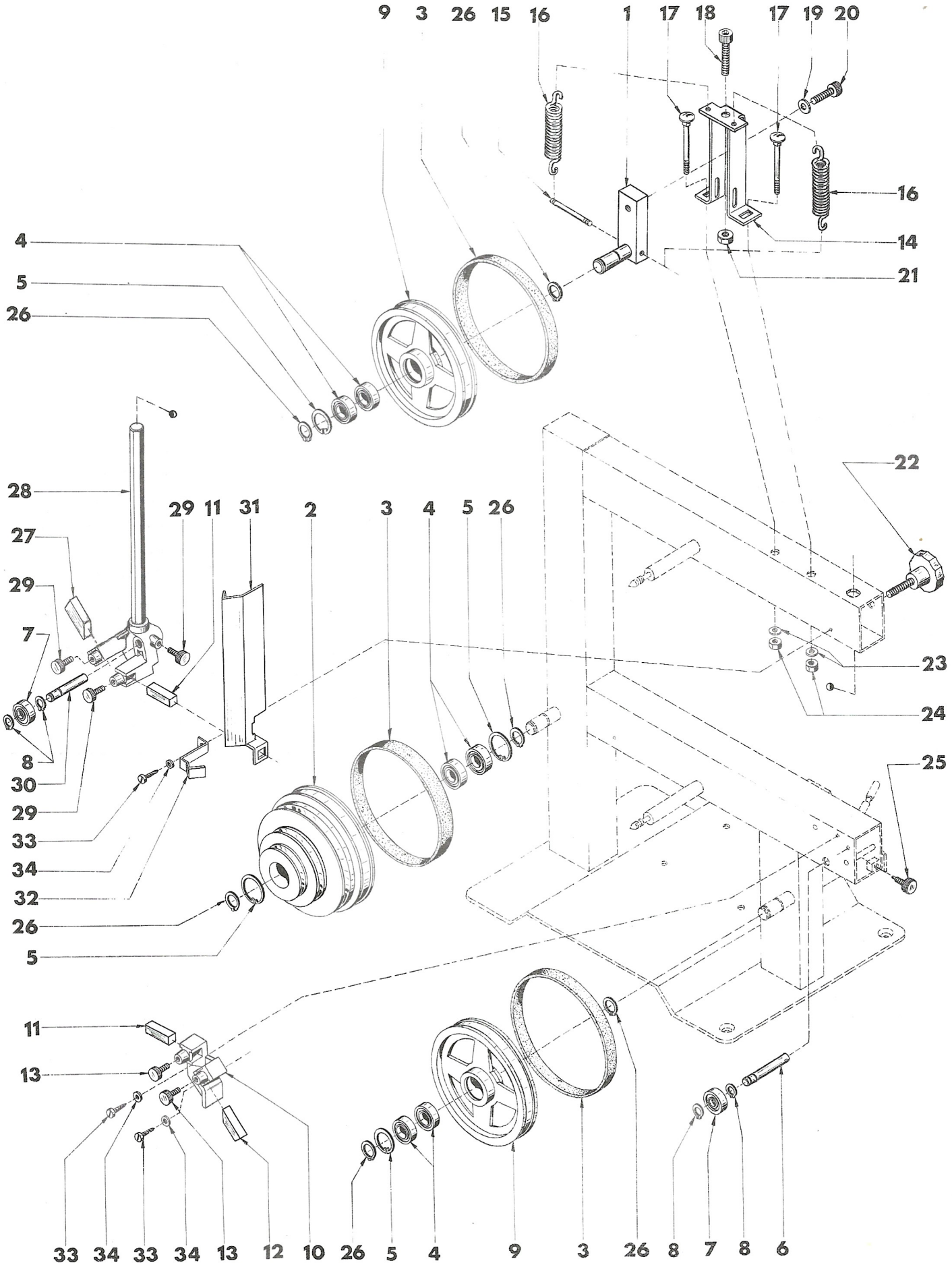
Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
1	H6A 000 010			Gehäuse	Housing	Corps
2	H6A 000 020			Deckel	Cover	Couvercle
3	H6A 010 000			G. Bandsägerahmen	Frame compl.	Ens. cadre scie à roban
4	H6A 090 000			G. Sterngriff	Star handle	Poigneé étoile
5	ZFD 94 2301	23,7x14,3x0,4 KEL9		Tellerfeder	Disc spring	Ressort belleville
6	ZRG 71 1410	14x1 DIN 471		Sicherungsring	Circlip	Anneau de retenue
7	H6A 000 110			Frontschild	Name plate	Plaque
8	H4A 000 220			Abrichtzeiger	Index	Aiguille à dresser
9	ZSB 33 0370	3,7 DIN 433		Scheibe	Washer	Rondelle
10	ZSR 71 3513	B3,5x13 DIN 7971		Blechschraube	Sheet metal screw	Vis en tôle
11	H6A 000 100			Typenschild	Rating plate	Plaque signal etique
12	ZSR 71 5516	B5,5x16 DIN 7971		Blechschraube	Sheet metal screw	Vis en tôle
13	ZSB 25 0640	B6,4 DIN 125		Scheibe	Washer	Rondelle
14	ZSB 21 0430	A4,3 DIN 9021		Scheibe	Washer	Rondelle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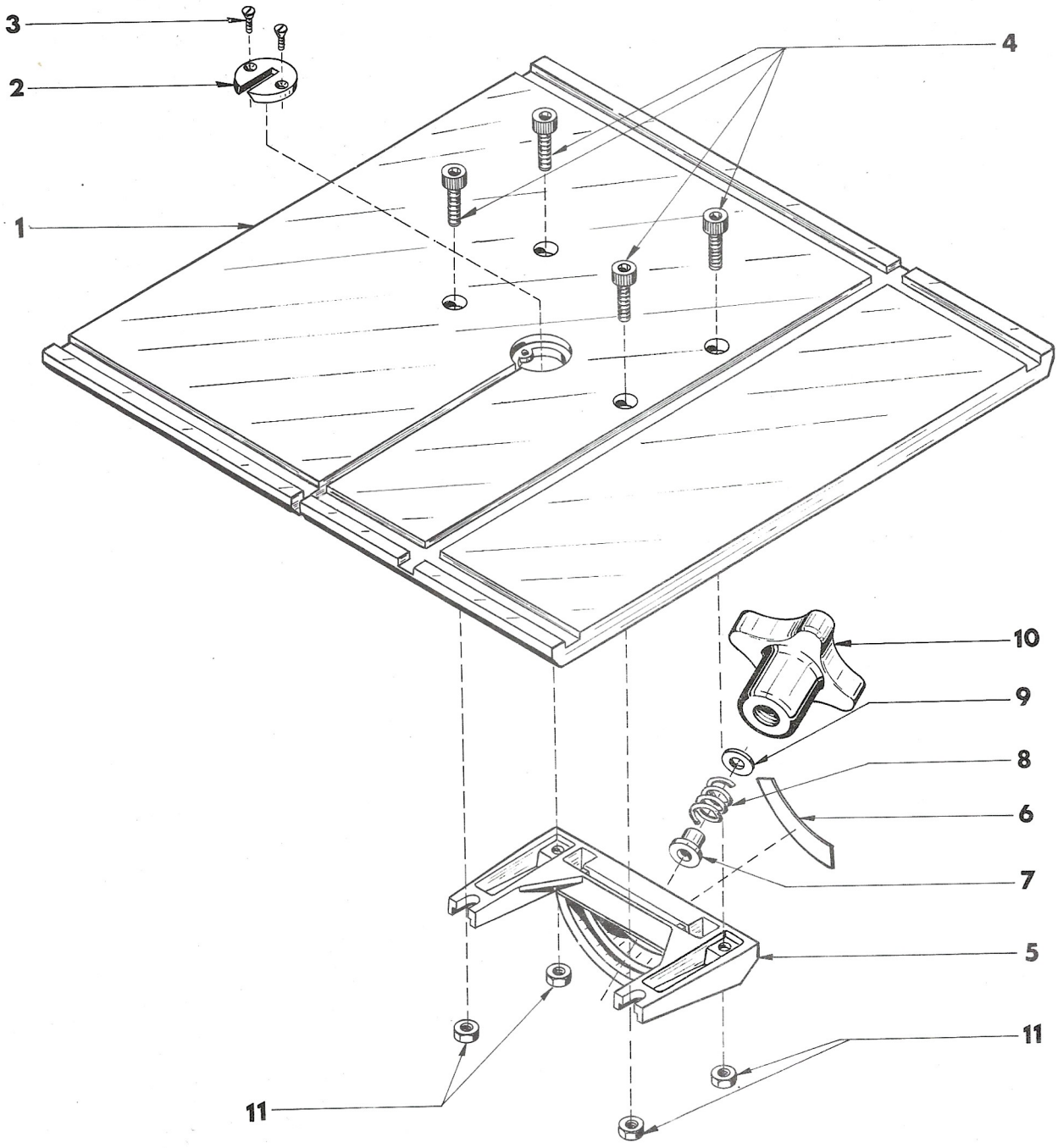
Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
1	H6A 020 000			G.Sägeschlitten	Slide compl.	Ens. chariot
2	H6A 030 010			Riemenscheibe	Belt pulley	Poulie
3	H6A 030 020			Gummilauffläche	Tread	Surface de roulement
4	ZLG 60 0201	6002 - Z		Rillenkugellager	Ball bearing	Roulement à billes
5	ZRG 72 3212	B32x1,2 DIN472		Sicherungsring	Circlip	Anneau de retenue
6	H6A 040 010			Bolzen	Bolt	Boulon
7	ZLG 60 0002	6000 - 2Z		Rillenkugellager	Ball bearing	Roulement à billes
8	ZRG 71 1010	W10x1 DIN471		Sicherungsring	Circlip	Anneau de retenue
9	H6A 050 010			Bandsägerolle	Band saw wheel	Rouleau scie à ruban
10	H6A 080 010			Bandsägeführung	Band saw guide	Guidage de la scie à ruban
11	H2A 130 010			Führungsstift 32mm	Guide pin 32mm	Cheville de guidage 32mm
12	H2A 140 020			Führungsstift 35mm	Guide pin 35mm	Cheville de guidage 35mm
13	H1A 150 020			Rändelschraube	Knurled screw	Vis moletée
14	H6A 000 050			Schlittenführung	Slide guide	Guidage de chariot
15	H6A 000 060			Bolzen	Bolt	Boulon
16	ZFD 50 0130	Z-130-N		Zugfeder	Tension spring	Resort tirant
17	ZSR 04 0665	M6x65Mu DIN603-4.6		Flachrundschraube	Round head square bolt	Vis bombé
18	ZSR 12 0830	M8x30 DIN912-6.9		Zylinderschraube	Allen head screw	Vis 6 pans creux
19	ZSB 25 0840	B8,4 DIN125		Scheibe	Washer	Rondelle
20	ZSR 12 0825	M8x25 DIN912-8.8		Zylinderschraube	Allen head screw	Vis 6 pans creux
21	ZMU 50 0800	M8		KALEI—Setzmutter	Nut—KALEI	Ecrou type KALEI
22	ZGF 33 5008	50xM8x25 GN 633 6.4		Sterngriff	Star handle	Poignée étoile
23	ZSB 25 0640	B6,4 DIN125		Scheibe	Washer	Rondelle
24	ZMU 34 0600	M6 DIN934-6		Sechskantmutter	Hexagon nut	Ecrou hexagonal
25	A3Z 250 080			Rändelschraube	Knurled screw	Vis moletée
26	ZRG 71 1510	W15x1 DIN471		Sicherungsring	Circlip	Anneau de retenue
27	H2A 130 020			Führungsstift 43mm	Guide pin 43mm	Cheville de guidage 43mm
28	H2A 131 000			G. Führungskopf	Guide head compl.	Ens.tête de guidage
29	H1A 150 020			Rändelschraube	Knurled screw	Vis moletée
30	H1A 152 010			Bolzen	Bolt	Boulon
31	H2A 000 220			Bandsägeschutz	Saw blade cover	Protecteur de scie à ruban
32	H6A 000 120			Winkel	Angle sheet iron	Bride
33	ZSR 71 3513	B3,5x13 DIN7971		Blechschraube	Sheet metal screw	Vis en tôle
34	ZSB 25 0430	A4,3 DIN125		Scheibe	Washer	Rondelle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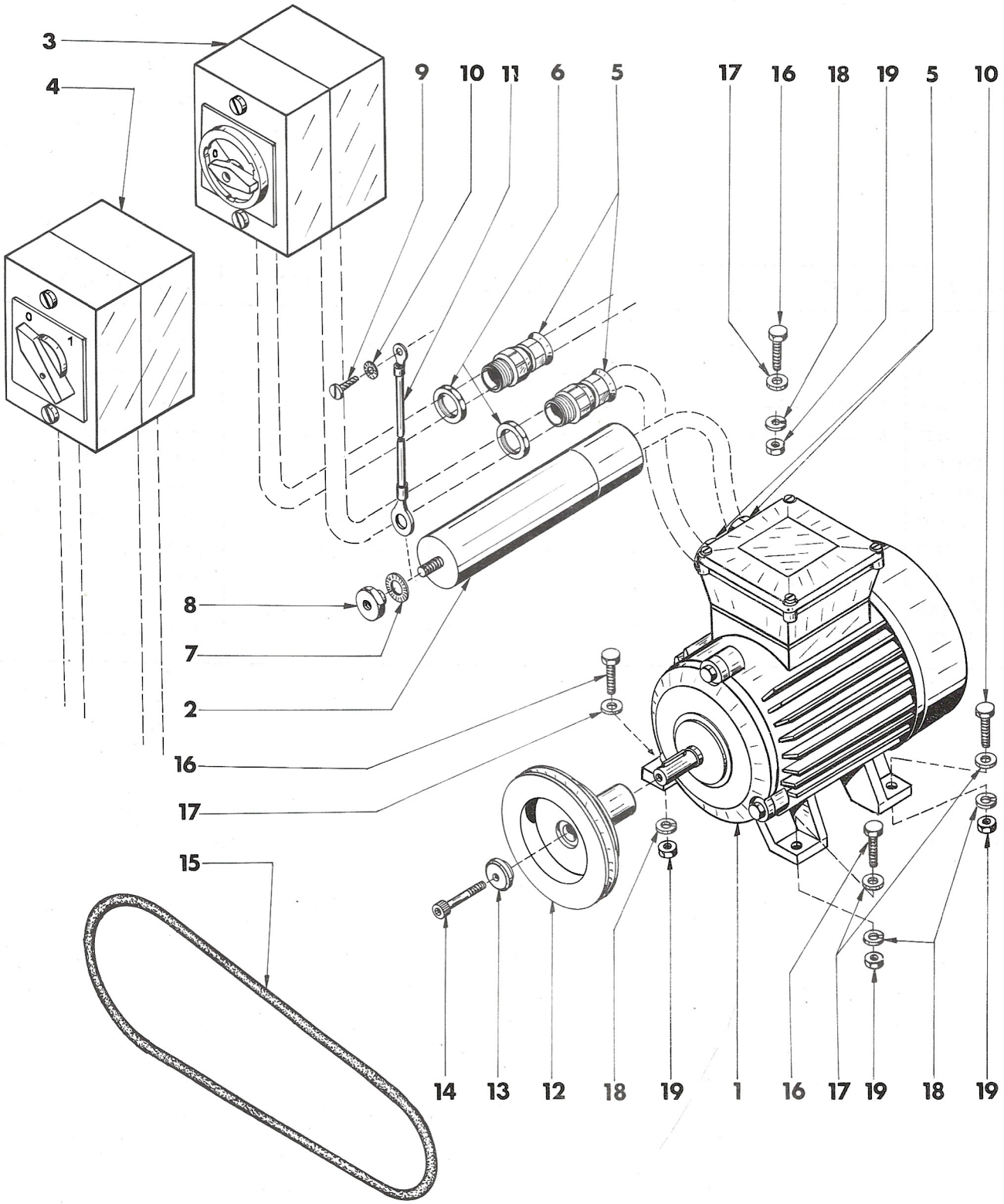
Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
1	H6A 060 010			Bandsägetisch	Saw table	Table scie à ruban
2	H1A 060 020			Kunststoffeinlage	Insert	Pièce interclaire
3	ZSR 63 0410	M4x10 DIN963-4.8		Senkschraube	Countersunk screw	Vis noyée
4	ZSR 12 0825	M8x25 DIN912-8.8		Zylinderschraube	Allen head screw	Vis 6 pans creux
5	H6A 000 030			Wippe	Swivel element	Assise basculante
6	H6A 000 040			Skala	Graduated scale	Echelle
7	H6A 000 090			Federbüchse	Spring bush	Douille de ressort
8	ZFD 21 4217	D – 217 B		Druckfeder	Compression spring	Ressort à pression
9	ZSB 25 0840	B8,4 DIN 125		Scheibe	Washer	Rondelle
10	ZGF 35 4008	40xM8 DIN6335		Kreuzgriff	Star knob	Croisillon
11	ZMU 34 0800	M8 DIN934-6		Sechskantmutter	Hexagon nut	Ecrou hexagonal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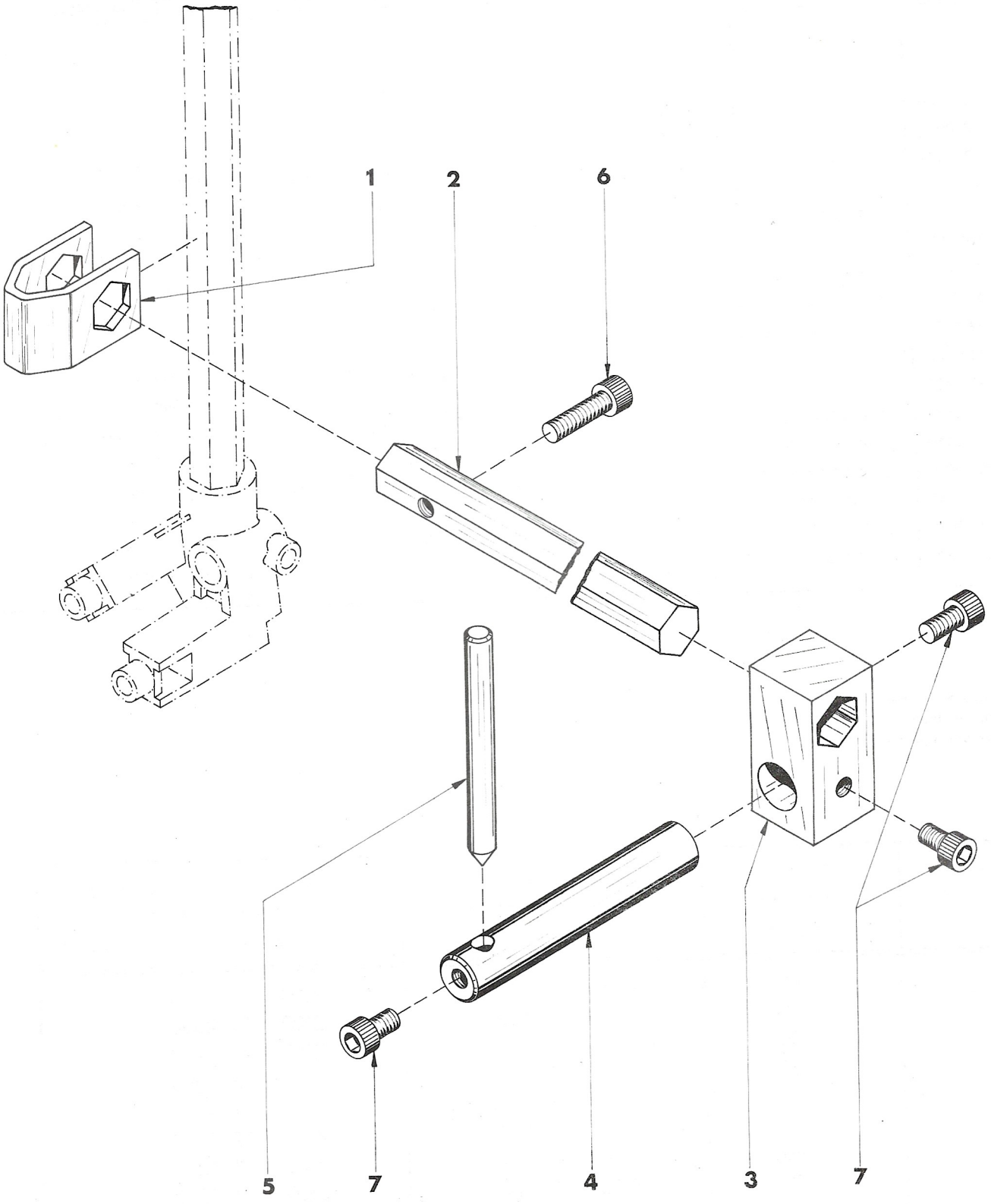
Pos	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
1	ZMO . . . . . *			Motor	Motor	Moteur
2	ZKO . . . . . *			Kondensator	Condenser	Condensateur
3	ZEL 26 1220			Schalter – VDE	Switch – VDE	Guichet – VDE
4	ZEL 26 0002			Schalter – Standard	Switch – standard	Guichet – stand.
5	ZPG 10 0007	MZB 11		Kabelverschraubung	Screw-type conduit fitting	Raccordemend a vis
6	ZPG 20 1100	PG 11		Gegenmutter	Lock nut	Contre-ecrou
7	ZSB 97 1251	J 12,5 DIN 6797		Zahnscheibe	Star washer	Rondelle eventail
8	H6A 100 010			Mutter	Nut	Ecrou
9	ZSR 71 3513	B3,5x13 DIN7971		Blechschraube	Drive screw	Vis pour tole
10	ZSB 97 0430	A4,3 DIN 6797		Zahnscheibe	Sheet metal screw	Rondelle eventail
11	ZKB 09 0001	YF1,5x100 RZ,Sch		Kabel	Cable	Cable
12	H6A 000 070			Motorriemenscheibe	Motor belt pulley	Poulie de moteur
13	B1A 000 100			Scheibe	Washer	Rondelle
14	ZSR 12 0535	M5x35 DIN912-6.4		Zylinderschraube	Allen head screw	Vis 6 pans creux
15	ZOR 50 6440	2-440/N674-70		0-Ring	0-ring	Bague - 0
16	ZSR 33 0620	M6x20 DIN933-5.6		Sechskantschraube	Hexagon head screw	Vis hexagonale
17	ZSB 25 0640	B6,4 DIN 125		Scheibe	Washer	Rondelle
18	ZRG 28 0060	B6 DIN 127		Federring	Spring washer	Rondelle ressort
19	ZMU 34 0600	M6 DIN 934-6		Sechskantmutter	Hexagon nut	Ecrou 6 pans

* Ref. Nr. siehe Tabelle
* Ref. Nr. see table
* Ref. Nr. voir tableau

Spannung Voltage [V] Tension	Frequenz Frequency Frequence	Ref. Nr. für Pos. 1 (= Motor) Ref. Nr. for Pos. 1 (=motor) Ref. Nr. pour Pos. 1 (=moteur)	Ref. Nr. für Pos. 2 (= Kondensator) Ref. Nr. for Pos. 2 (=condener) Ref. Nr. pour Pos. 2 (=condensateur)
100	60	ZMO 46 1100	ZKO 17 2550
100	50	ZMO 45 1100	ZKO 17 2550
220	60	ZMO 46 1220	ZKO 17 4210
115	60	ZMO 46 1115	ZKO 15 3040
250	50	ZMO 45 1250	ZKO 17 4212
240	50	ZMO 45 1240	ZKO 17 4212
230	50	ZMO 45 1230	ZKO 17 4212
220	50	ZMO 45 1220	ZKO 17 4212
110	50	ZMO 45 1110	ZKO 17 2550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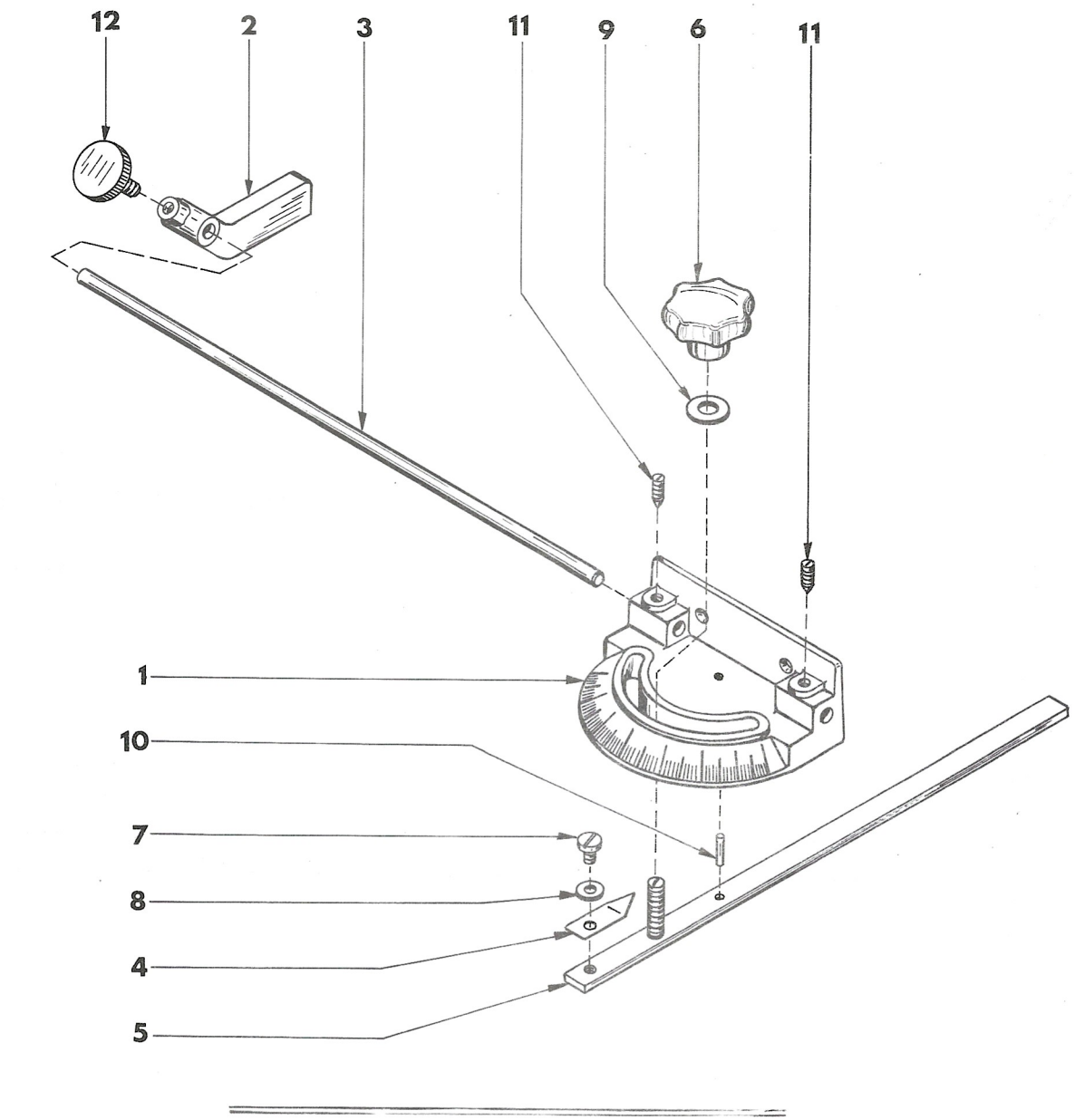
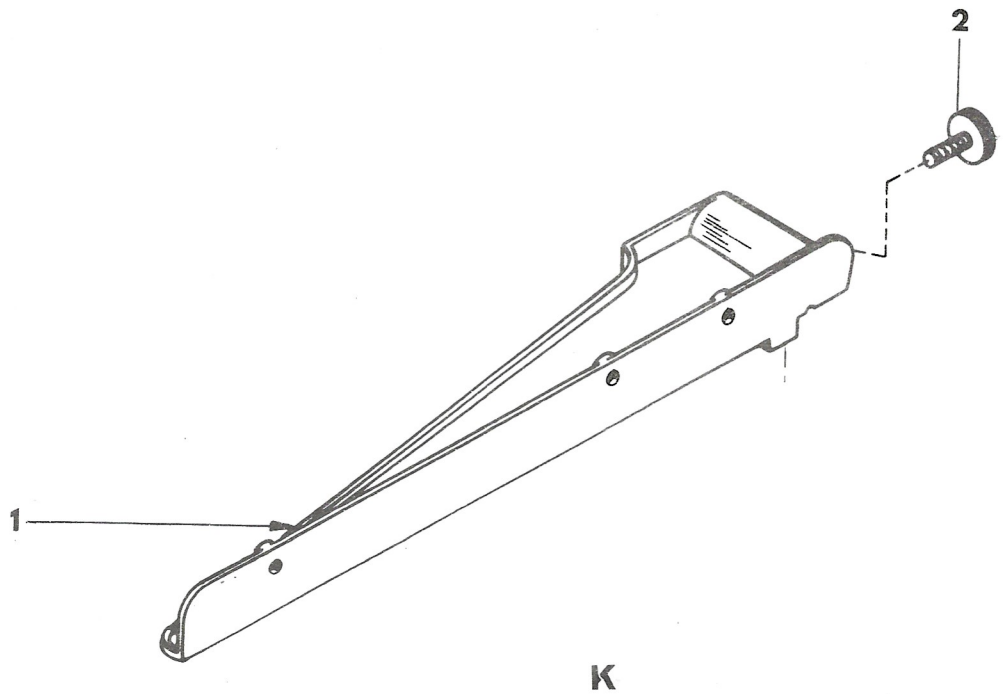
Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
	H6Z 270 000			Gr. Kreisschneide-einrichtung	Circular cutting device compl.	Ens. dispositiv scie circulaire
1	H6Z 270 010			Bügel	Clamp	Archet
2	H6Z 270 020			Stange	Bar hexagonal	Tige
3	H6Z 270 030			Schlitten	Slide	Chariot
4	H6Z 270 040			Bolzen	Bolt	Boulon
5	H6Z 270 050			Zentrierspitze	Center pin	Pointe de centrage
6	ZSR 12 0622	M6x22 DIN 912-6.9		Zylinderschraube	Allen head screw	Vis 6 pans creux
7	ZSR 12 0612	M6x12 DIN 912-6.9		Zylinderschraube	Allen head screw	Vis 6 pans creux





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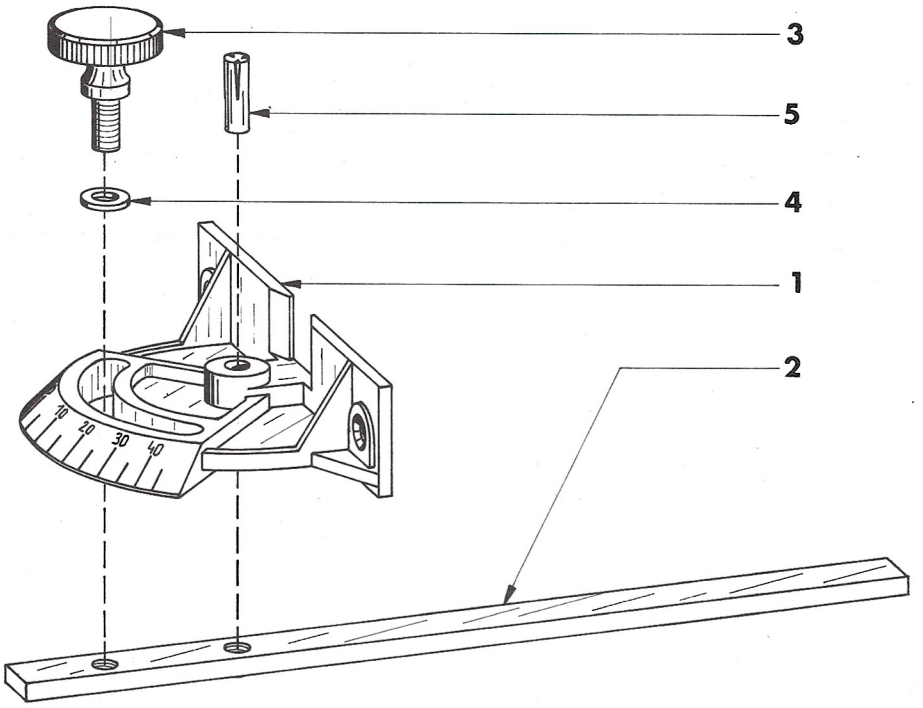
Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
	H1Z 030 000			G.Gehrungslineal	Mitre gauge compl.	Ens. guide d'onglet
1	H1Z 030 010			Gehrungsanschlag	Graduated gauge	Butèe d'onglet
2	H1Z 030 020			Längsanschlag	Longidudinal stop	Butèe longitudinale
3	H1Z 030 030			Anschlagstange	Bar	Barre de butèe
4	H1Z 030 040			Zeiger	Index	Aiguille
5	H1Z 031 000			G.Lineal	Ruler compl.	Ens. règle
6	H1A 240 000	40xM8 DIN6336		G.Sterngriff	Star handle compl.	Ens. poignée étoile
7	ZSR 84 0506	M5x6 DIN84		Zylinderschraube	Flat head screw	Vis tête zylind.
8	ZSB 25 0530	B5,3 DIN 125		Scheibe	Washer	Rondelle
9	ZSB 25 0840	B8,4 DIN 125		Scheibe	Washer	Rondelle
10	ZST 72 0416	4x16 DIN 1472		Paßkerbstift	Grooved adjusting pin	Tenon à encoche d'ajustage
11	ZST 53 0608	M6x8 DIN 553		Gewindestift	Set screw	Vis sans tête
12	ZSR 53 0615	M6x15 DIN 653		Fl. Rändelschraube	Knurled screw	Vis moletée

Pos.	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
	H1A 230 000			Gr.Parallelanschlag	Fence compl.	Ens.butee parallèle
1	H1A 231 000			Anschlag	Fence	Butèe
2	ZSR 53 0615	M6x15 DIN653		Rändelschraube	Knurled screw	Vis moletée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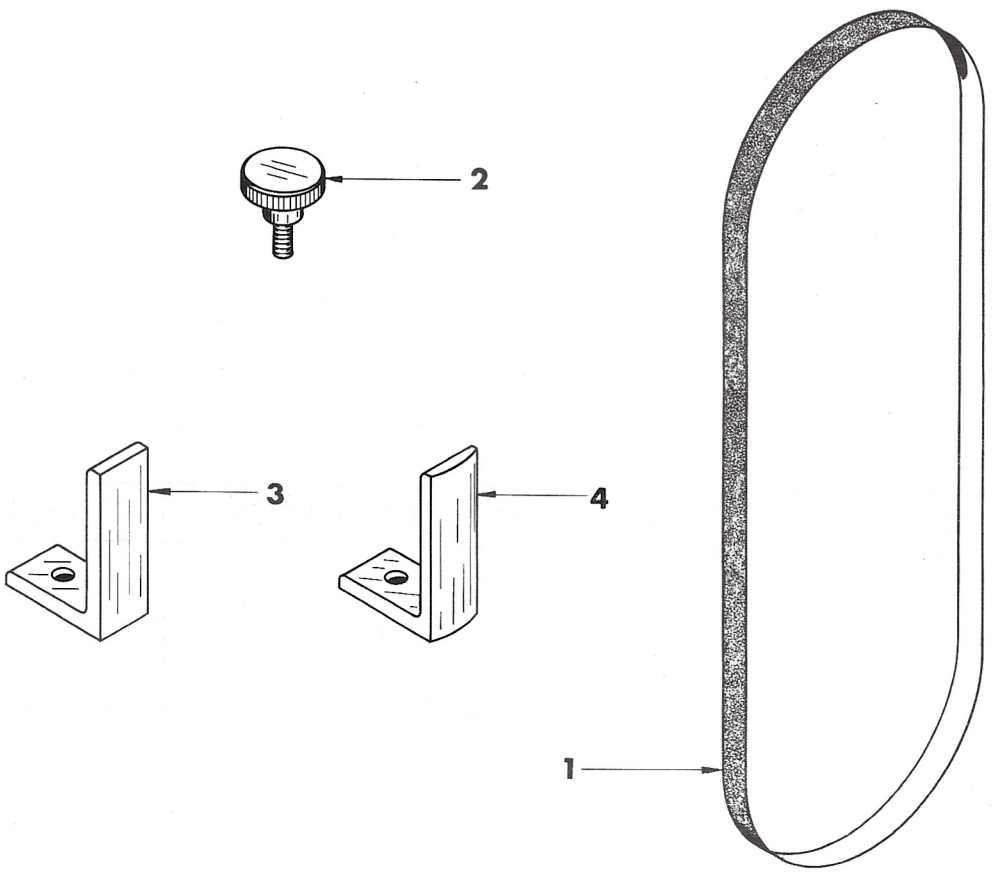
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Pos	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
	A2Z 990 000			Gruppe Gehrungslineal	Mitre gauge compl.	Ens. guide d'onglet
1	A2Z 990 010			Gehrungskopf	Graduated gauge	Tête d'onglet
2	A2Z 990 020			Lineal	Ruler	Règle
3	A2Z 990 030			Rändelschraube	Knurled screw	Vis moletée
4	ZSB 25 0640	B6.4 DIN 125		Scheibe	Washer	Rondelle
5	ZST 72 0516	5x16 DIN1472-6.8		Paßkerbstift	Grooved adjusting pin	Tenon à encoche d'ajustage

Pos	Ref. Nr.	DIN		BENENNUNG	DESCRIPTION	DESIGNATION
	H2Z 260 000			G.Formschleifeinrichtung	Form sanding attachm. compl.	Ens. Dispositif de poncage à bande
1	631070			Schleifband	Sanding belt	Ruban
2	A2Z 990 030			Rändelschraube	Knurled screw	Vis moletée
3	H2Z 260 021			Schleifbock gerade	Straight belt stand	Turret d'affutage
4	H2Z 260 011			Schleifbock gekrümmt	Convex belt stand	Turret d'affutage