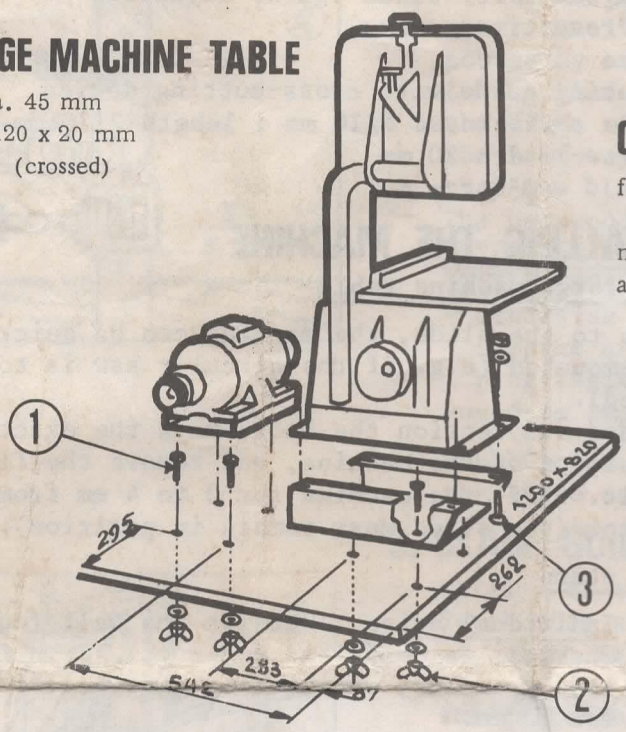
Band Saw 612

Installing, adjusting and putting into operation

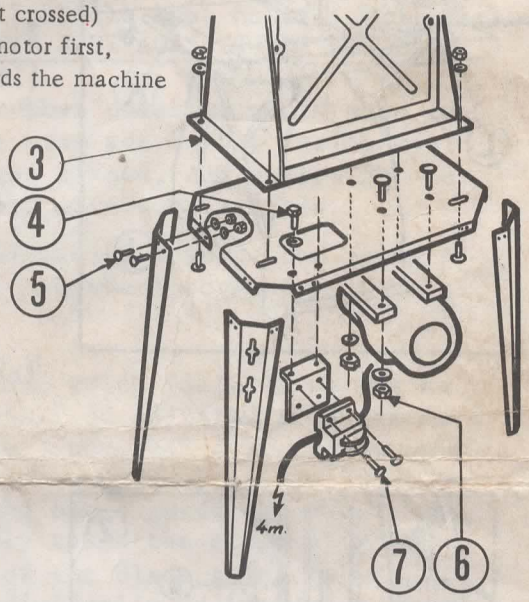
ON LARGE MACHINE TABLE

pulley, dia. 45 mm
flat belt 1120 x 20 mm
(crossed)

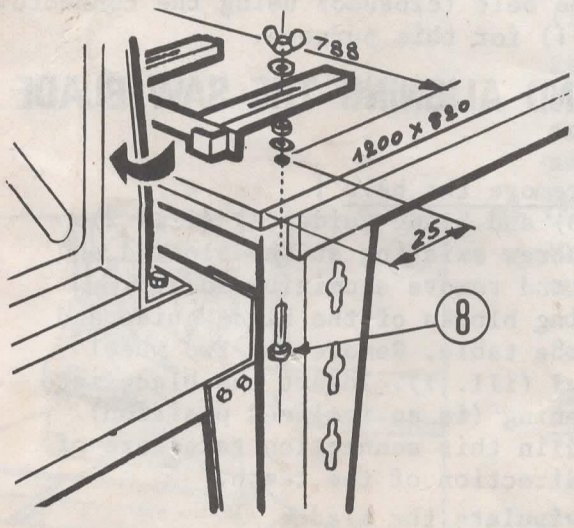


ON SMAL STAND 712

flat belt 810 x 15 mm
(not crossed)
mount motor first,
afterwards the machine



square position of
carriage bolts
- motor base
- slide



CONNECTOR 2005 AT LARGE MACHINE TABLE

flat belt 1900 x 15 mm (crossed)

1. Motor base

4		Ø8 x 35
4		Ø8 x 48 x 3
4		Ø8

2. Detachable base platte

3		Ø8 x 35
3		Ø9 x 30 x 1,5
3		Ø8

3. Machine

4		TIXIT Ø6 x 15
4		Ø6 x 14 x 1,2
4		Ø6

4. Switch fastening plate

2		Ø6 x 10
2		Ø6 x 14 x 1,2

5. Legs

16		TIXIT Ø6 x 15
16		Ø6 x 14 x 1,2
16		Ø6

6. Motor

4		Ø8 x 23
4		Ø8 x 16 x 1,5
4		Ø8

7. Cut-off switch

4		CB 4 x 20
4		Ø4

8. Connector 2005

2		Ø6 x 50
2		Ø6 x 14 x 1,2
2		Ø6
2		Ø6 x 14 x 1,2
2		Ø8

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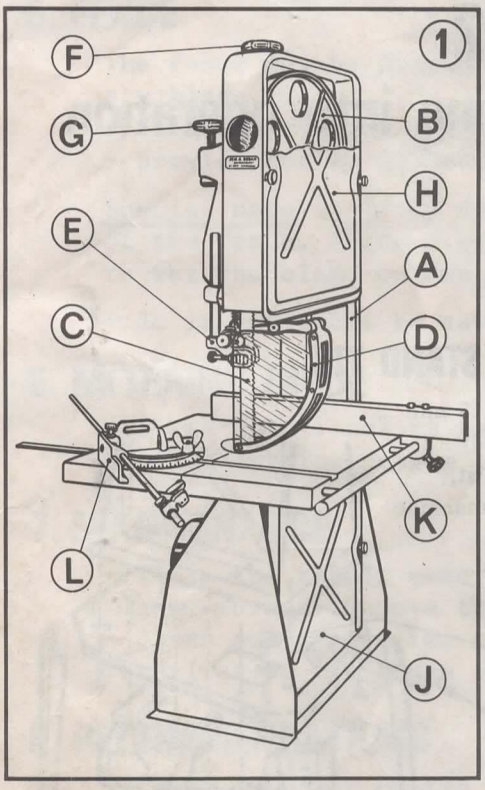


THE BAND SAW 612 consists of the following parts (ill. 1)

A.- Casing
B.- Wheels with vulcanized-on rubber covering
C.- Band saw blade
D.- Guard with plexiglass shield
E.- Blade guiding with abutting bearing
F.- Hand wheel for blade tensioning
G.- Hand wheel for blade course adjusting
H.-J.- Protective covers
K.- Fence
L.- Mitering guide with cross-cutting device

Saw blade : thickness 5/10 mm ; length 2120 mm ; width 20 mm
Speed : 1050 r.p.m.

1. INSTALLING THE MACHINE

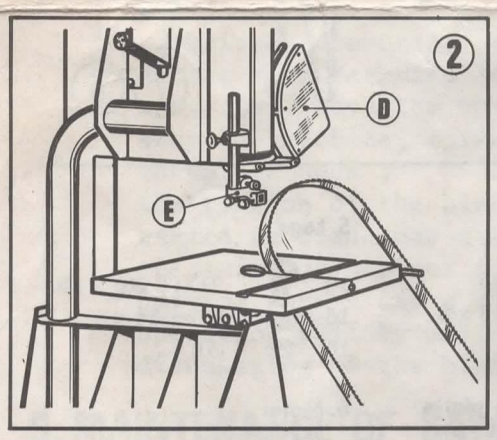
1.1. On large machine table

Due to the slide, the machine can be quickly dismounted (e.g. if the circular saw is to be used).
Place and tension the belt, mark the exact position of the machine, and remove the flat belt. Shift the machine for 3 to 4 mm from the motor (the slide must remain in position).

1.2. On stand

a) Individual drive : Tension the belt (not crossed) as described under 1.1. ; in this case, however, the machine must be shifted for 10 mm.

b) Machine driven by KITY-motor of the large table :
If the stand is to be mounted to the large machine table it is necessary to push the legs of the latter downwards so that both the tables will have the same height. Then tension the belt (crossed) using the connector (see page 1) for this purpose.

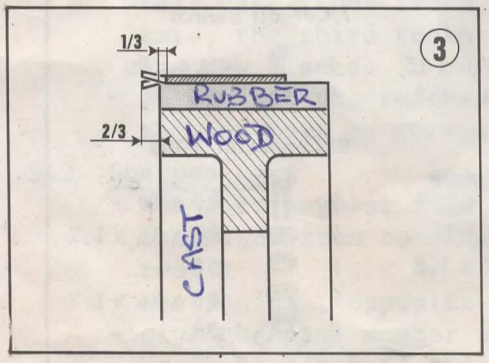


2. INSERTING AND ALIGNING THE SAW BLADE

2.1. Inserting

Above all : remove the belt !
Lift guard (D) and blade guide (E) (ill. 2)
Unscrew the screw existing at the slotted end of the table and remove aluminium insert.
Loosen abutting blocks of the blade guide and those under the table. Remove the two wheel covers H and J (ill. 1). Insert the blade into the table opening (in an inclined position) (ill. 2), and in this connection take care of the correct direction of the teeth.

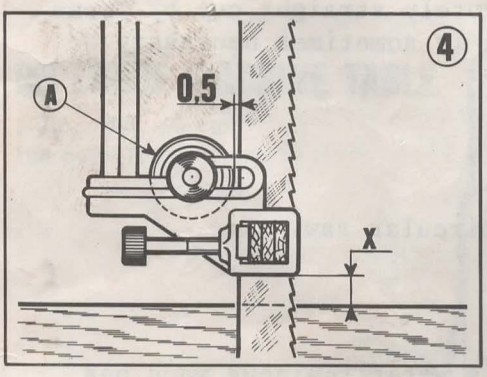
Carefully manipulate the blade
Place the blade on the left-hand side of the protective device (D) and lower the latter. Turn the blade in the direction of the wheels and make sure that it will be positioned between the abutting blocks. The blade should not be twisted.



2.2. Tensioning and adjusting the blade

Place the blade on the wheels and make sure that the teeth project above the edge of the wheel. Slightly tension the blade using the handle F (ill. 1). By turning the wheels by hand (in the normal sense of rotation) verify that the wheels are correctly aligned and adjusted ; two thirds of the height of the teeth must project at the upper wheel (ill. 3 - page 2). Adjust the blade course by using the handle G (ill. 1). This is to set blade tensioning correctly (e.g. press the blade with your thumb against the cheeks of the half-way adjusted wheel guide in such a way that the blade hardly touches the wheel guide. The hardwood small-blocks must however be loose). NEVER LET THE TEETH ABUT AGAINST THE WHEEL ITSELF BECAUSE :

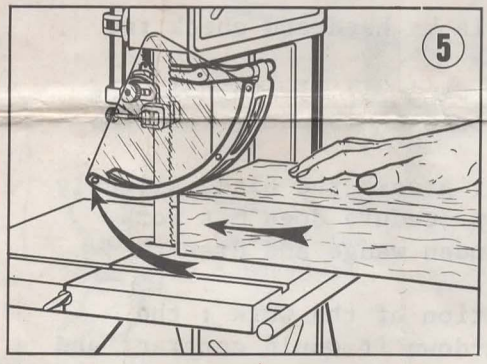
- otherwise the rubber covering would soon get damaged and the saws set to the inside would progressively get raised, and a straight cut would be impossible with such a blade.



Mount again the aluminium insert, the screw of the table and the two wheel covers.

3. BLADE GUIDE

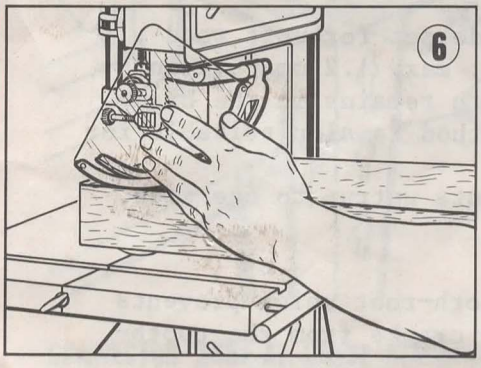
Wheel A of the blade guide (ill. 4) serves as depth stop and should be adjusted at a distance of 0.5 mm from the blade back ; it should only move during the sawing operation. The hardwood small-blocks of the blade guide and those under the table must only touch the blade slightly. The small-blocks of the blade guide (three pieces) can be individually adjusted (re-adjusment in case of play).



Place the blade guide in position as near the wood to be machined as possible : X = max. 20 mm (ill. 4).

Even a well adjusted blade guide cannot prevent a dull or uncorrectly set blade from turning aside during the sawing operation (see items 9.1. and 9.2., page 4).

4. USING THE GUARD



When the workpiece is fed, the guard is lifted in such a way (ill. 5) that the blade is always fully covered. After the workpiece has passed, the guard falls back to its initial position.

It is absolutely necessary to fit this protective device.

It prevents the operator from unintended but highy dangerous touching the blade (ill. 6). Do never remove the guard or the protective shield ! This protective device is constructed in such a way that the working zone always remains well visible. The two protective covers (H ans J) must always be fitted while the machine is in operation ; they prevent the blade from dangerously hurting the operator in case the blade should fly off or tear.

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5. FENCE

The fence may be fitted either on the right-hand or on the left-hand side of the saw blade.

- It must be absolutely parallel to the blade (the two screws of the fence provide for an adjustment, if necessary).

Special note : it is difficult to produce an absolutely straight cut by means of the fence. After a certain time of operation, it is sometimes necessary to re-set the blade on one side.

- It is advisable to saw according to a trace.

6. MITERING GUIDE

- Mitre cuts : not as easy to perform as with the circular saw.
- Cross-cutting device : for series work.

7. MAINTENANCE

- Clean the rubber covering regularly ans especially after resinous wood has been worked. Remove the resin by using glass paper or a fine wire brush.
- Clean and grease the tensioning and adjusting device regularly ; this also applies to the hinge of the protecting device.

8. RECOMMENDATIONS

Before any start of the machine verify that :

- the wheels are correctly adjusted : turn the wheels by hand and check the position of the blade (ill. 3, page 2) ;
- the blade is correctly tensioned : see item 2.2., page 3 ; always hold the workpiece well in place ; avoid lateral pressure onto the blade ; feed the workpiece at constant speed ;
- do not move backward if the blade becomes jammed : grease the blade slightly and slowly move the workpiece foreward ; if this procedure does not work, stop the machine, spread the cut by means of a wooden wedge and draw the workpiece back ;
- the tension of the blade is released after completion of the work : the warmed-up blade has stretched, during the cooling-down it would contract and therewith be subject to tear ;
- curving work : use a correctly set blade of 5 or IO mm width ; prepare the operation well by making some lateral cuts in order to facilitate the disengaging of the blade from the wood.

9. MAINTENANCE OF SAW BLADES

9.1. Setting : setting first, and then sharpening

- use a saw set plier ; narrow set for hardwood, wide set for soft wood ;
- normal set : 0.8 mm ; for green or resinous wood : max. 1.2 mm, but in this case : one tooth to the left, the second tooth remains in the blade axis, the third tooth to the right, etc. (this method is also suitable for bow saw blades) ;
- Do not set the teeth of the weld ; if the blade cuts untrue to one side, the set must be increased at the opposite side.

9.2. Sharpening :

- use a triangular file (this results in a round tooth-root which prevents the blade from tearing) ; remove perhaps existing cracks from the tooth-root ;
- sharpening : opposite sense to the turning direction of the blade ;
- give the same nomber of file cuts to each tooth ;
- keep the teeth of the weld (week spot of the blade) somewhat lower than the others ; this helps to relieve the weld.