

## 12* TILTING ARBOR SAWBENCH <br> TYPE $12^{*}$ AGS



[^0]Remove protectuve eoting tron all oright parts by applying a cloth soaked in paraffin, turpentine or other solvent.

When the machine is cased for export the extension tables, rip fence, fence bars and motor are removed and packed individually, Remove and re-assemble as shown in Fig. i.


WIRING DETALLS
The motor and control gear have been wired in before despatch. All that is required is to connect the power supply to the starter.

Paints to note when connecting to power supply:-

1. Check the voltage, phase and frequency corres-
pond to those on the motor plate, also the
correct colls and heaters are itted to the starter.
2. It is important that the correct cable is used to give the correct voltage to the starter as ruming on low voltage will damage the motor.
3. Check the main line fuses are of the correct capacity. See list below.
A. Connect the line leads to the appropriate terminals. See Fig. 2 for 3 phase supply and Fig. 3 for 1 phase supply.
4. Check all connections are sound.
5. Check the watation of the motor for correct
direction. If this is incorrect Feverse any two of the Iine lead connections. for 3 phase supply.

AMPS

| 220 | 3 | 3 | 21 | 29 |
| :--- | :--- | :--- | :--- | :--- |
| $380 / 420$ | 3 | 3 | 24 | 17 |
| 550 | 3 | 3 | 5 | 24 |
| 220 | 3 | 5 | 19 | 17 |
| $380 / 420$ | 3 | 5 | 22 | 38 |
| $200 / 250$ | 1 | 3 | 19 | 24 |

## LUBRICATTON

It is advisatle to keep all bright parts covered with a thin film of oll to prevent rusting.

TYPE OF OLL RECOMAENDED
TYPE OF GREASE RECOMMENDED

POWEA EM125
SHELL ALVANIA 3



FOUNDATION
The clearances required for this machine are shown in Fig. 5.

MOUNTING SAWBLADES
Io mount a samblade the undexmentioned procedure
Should be followed:- ineck the machine is isolated Eefore starting to fit sawblade.
2. Swing the sawquard to the top position
3. Renove aluminíum table insert and rabe saw arbor to its highest position.
4. Remove the arbor nut (left hand thread) and front saw tiange.
5. Select the blade which is required depending on the type of work which is to be done. Check the blade is free from all dirt, gum or sawdust especialiy where it will be gripped by the flanges. Mount the blade on the arbor. Check front saw flange is clean and then fit onto saw arbor. The saw teeth should point towards the arbor. the saw teeth
NOTE:- If the flanges and the saw are not clean the saw will run out of true, hence causing vicration.
6. Lock the sow securely in position with the arbor nut (left hand thread). To tighten arbor nut hold spinde in position with the toggle bar in the back saw flanae.
7. Replace tatele insext and position saw ouard depending on the thickness of timber to be worked.


BISE AND FALL CONTROLS
The saw arbor rises and falls a total travel of 4" (101 man). The travel of the saw is pre-set before despatch from the works. The rise and fallis controlled by the conveniently placed handwheel "A". in Eig. 6. The rise and fall is through a wormwheel and racked quadrant.

To lock the saw in any position, lock plastic handwheel "g"
CANTMG COMROLS
The saw cants $45^{\circ}$ to the right, with positive stops at 900 and 450 , which are accurately set before despatch from the works. The motion.is through a wormwhee 1 and racked guadrant and is controlled by conveniently placed handwheel "C" in Fig. 6. The angle of cant is shown on the graduated scale "D in Fig. 6. To lock the saw at any angle, lock plastic handwheel "E".

All adjustments and alignments listed below have been carefully set and checked and the whole machine thoroughly tested before despatch from the works During the first few weeks of operation and at egular intervals afterwards, cextain items such as belt tension should be checked carefully. When adjustments are necessary proceed in accardanta with the relative instructions given.


BELT TENSION
The drive is by two vee belts from a 3 HP motor. To tension the belts loosen the hexagon nut "A"; in Fig. 7, also hexagon nut "B". Swing motor until the required tension is reached, then re-lock the nexagon nuts.


HON TO ADJUST GUADD AND RIVING KNIFE
The riving knife complete with the quate rises and falls with the saw. The xiving knife should be brought to within $1 / 4{ }^{\prime \prime}(6 \mathrm{~mm})$ of the saw at the closest point. To adjust the riving knife to this position, loosen the two hexagon nuts "A" in Eig. B, position riving knife where required then re-lock in position.

The guard should then be adjusted to protect as much of the saw as possible by loosening the handwheel " $B$ " and positioning the guard where required. When set re-lock handwheel "p".


SETTING TABLE IN LINE WLTH SAW
The table grooves are accurately set betore despatch but should the takle be disturbed for any weason the undermentioned procedure shovid be followed to set the table giooves parallel to the saut:
L. Loosen the four 看 whit. nuts securing the tacle to the main trame.
2. With the saw fittec to axbory select a tooth and pasition stralght stop rod or matre fence so fhat it fust touches the sew as shown in Eig. 9.
3. Slide mitre fence to rear position of the saw swing tooth of saw which was used in item 2 . Check whether the stop rod touches the tooth by the same amount. Should the slot te out of align with the saw position table until cormect.
The correct position of the saw in relation to the table insert slot is $1^{\prime \prime}$ (25mm) from the right hand side. This will ensure clearance on the table insert when the saw is canted, When set ighten ali screws
4. To check this alignment cut several pleces
of wood using the mitre Eence to see there is no back cut as the stock is passed through the Sawblade.


RIF FENCE CONTROLS
The rip fence slides on two round bars at the front and rear of the table. The fence is provided with rapid and micro adjustment, also an effective lock

For rapid adiustment the undermentioned
procedure should be followed:-

1. Lift handle "A" in Fig. 10 and disengage the pinion from the front racked fence bar by pulling handwheel "B" out of the fence front bracket.
2. Position fence where required and deprest lever "A" to lock fence in position.
For micro adjustment the pinion should be engaged in the front racked fence bar, i.e. handwheel " $\mathrm{g}^{\text {" }}$ pushed into the fence front bracket.
FENCE ALICMMENT
To check the fence dignment the undermentioned procedure should be followed:-

Position xip fence near to the edge of the mitre fence slot that is furthest away from the saw and lock in position.
2. In this position the distance from the fence to the mitre fence slot should be approximately $1 / 32^{\prime \prime}$ $(.8 \mathrm{~mm})$ more at the rear of the table than at the front of the table. i.e. $1 / 32^{\prime \prime}(.8 \mathrm{~mm})$ lead off
3. If fence is incorrectly aligned, loosen the two hexagon head bolts " $C^{\prime \prime}$ : in Fig. 10 , and re-align as above. When set tighten all bolts.

It should be noted that the locking action of the fonce is in three stages. The first stage, which is made possible by a spring loaded plunger, and ansures that the fence is always lined up. as $5 e t$, to the saws before the final locking. The second stage locks the fence back bracket in position and the final stage locks the front bracket securely in position.

Should the locking action of the fence be incoxrect, the fence connecting rod nut "D* should be adjusted. Turning nut "D" in a clockwise direction increases the locking power of the rear lock and in an anti-clockwise direction redues the locking powex. The correct locking procedure for the fence is as described above.

SEIIING SAW TO RIVING KNIEE
It is most important that the saw and the riving knffe are in line. To re-set after the spindle has been disturbed the undermentioned procedure should be followed:-

1. Loosen the hexagon head adjuster bolt "A" in Fig.
2. and tep spindle where required, taking care
not to damage the threads on the spindle end.
Place a steel rule along both sides of riving
knife to check whether the saw is central.
3. When set re-tighten the hexagon head bolt "A".
4. To check this setting feed a short piece of timber from the rear, along both sides of the riving knife. If the riving knife is
incorrectly set the blade will cut unequal shoulders as shown in Fig. 11 (a) and when correctly set equal shoulders as shown in Fig. 11 (b).



FIG. 2
HOW TO PEPLACE SPINDLE BEARINCS To replace the spindle bearinas the undermentioned procedure should be followed:-

1. Remove saw, sawguard complete with riving knife and the table.
2. Aelease the tension on the belts as previously described and remove belts.
Now working from the pulley end of the spindle.
3. Remove the $1^{\prime \prime}$ fine thread nut (xight hand thread) "B" in Fig. 12, remove spindle pulley "C" which is keyed to the spindle.
4. Remove the hexagon head bolt "A" securing the remaining spind le assembly in the housing, tap out assembly from the pulley end. Care should be taken not to damage the threads on spindle end.
5. To remove the bearings remove the woodruff key then loosen the two $1 / 4 / 4$ whit. socket head grubscrew "D". remove the spincle locking collar.
6. The bearing and spindle distance plece can now be driven from the spindle.
The bearings should now be replaced as the arrangement in Fig. 12. Care should be taken not to pre-load the bearings, i.e. the spindle distance plece should be just free between the two bearings. When the locking collar has been replaced and the assembly is ready to be replaced in the spindle housing a socket head grubscrew should be inserted in the spincle trapping collar "E". This will assist in lining up the 億" whit. $\times 1^{\prime \prime}$ long hexagon head colt "A" on assembly.

To re-assemble the saindle assembly into the soindle housing:-

1. Line up socket head grubscrew with the hole in the spindle housing and tap in spindle assembly.
2. Remove socket head grubscrew and replace hexagon heed boit. "A".
3. Replace riving knife and set sam central to riving knife as previously described.
4. Beplace the pulley and belts then fe-tension belts. The table can now be replaced.
. Before lacking table in position ensure the mitre fence slot is perallel to the saw as previously described. When set tighten all bolts.


MITE FENCE
The mitre fence can be used on either side of the saw and slides in a tee slot, which should be kept clean, hence increasing the capacity which can be crosscut to $28^{*}(710 \mathrm{~mm}$ ) .


USE OF HLTRE EENCE STOP RODS
Accurate repetitive cutting can ba made using the stop rods see Fig. 13.

The rods are held in the fence by the thumbscrews "A in Fig. 13 and the stop rods held together by the two clamps "gut to adjust the bars by the clamps loosen the wingnuts "C".

See Fig. 14 for several positions in which the stop rods can be used.

NOTE:- Do not use rods on the same side of the saw as the cut, since they will be in the path of the cut thus damage can be done to the saw if contact is made.


ARRANGMENT OF SHEET METAL EXTENSION TABLE A sheet metal extension table can be supplied to fit to the fight of the sam as shown in Fig. 15. This table increases the capacity to the right of the saw to $50^{\prime \prime}$ ( 127 Mm ) between the saw and rip fence.

To assemble table the undernentioned procedure should Ee followed:

1. Remove parts from parcel and xemove protective coating Ey applying a cloth soaked in paraffin. turpentine or othor solvent and assemble as shown in Fig. 15.
2. Remove existing fence bars and replace with long bars supplied with the table ensuring replacement bazs are correctly positioned, i.e. zero maxk on graduated bar to the centre of the table.
3. Centralise the table with the main table of the machine. Loosen socket head grubscrew "A" in Eig. 15 and keeping the filboes "B" pressed against the inside of the extension table. The whole assembly can slide along the tie bars. When central with the main table re-tighten socket head grubscrew
4. Loosen the four socket head cap screw "C" securing the fence slide bars to the table and squaxe head bolts "D" securing the feet to the support legs. Raise or lower the support legs until the fence slide bars are parallel with the main table with $1 / 32^{\circ}(.0 \mathrm{~mm})$ to $1 / 16^{\circ}(1.6 \mathrm{~mm})$ clearance between the table and the bottom of the rip fence throughout the entire length. When set re-tighten all the screws.
5. Loosen the locknuts "E" and adjust socket head cap screws "F" until the rear fence slide bar is parallel to the front slide bar. When set relock the locknuts "E"
6. Loosen the hexagon head bolts and nuts "G" securing the adjuster plates to the extension table. Ralse or lower the extension table until the table is level with the machine tabla. Check by means of a straight edge. When correctly set re-tighten the hexagon head bolts and nuts "G". The table is now ready for use.


HOW TO ELT WOBELE SAW
To fit wobble saw the undermentioned proceduxe should be followed:-

Remove table insert, riving knife complete with guard and front saw flange, keep these in a dry safe place.
2. Remove $z_{2}$ whit. (left hand thread) socket head grutescrew from the end of the saw spindle.
3. Fit wobble saw to saw spindle as shown in Fig. 16. and secure to saw spindle by means of the si" and secure to saw spindle by means of the ${ }^{2}$.
whit. left hand thread hexagon head bolt supplied.
4. Whit that is now required is to set the saw to wobble to give the s.ize of slot which is required to be cut.
5. To adjust saw loosen nut "A" and move saw
complete with large collars to required position. When set re-lock nut "A".

Maximum diameter of saw which can be used is $\vec{a}^{*}$ (203 mm)
Table insert ref. No, $1030 / 44 \mathrm{~B}$ should be used when wobble saw is fitted.
After the job has been completed with the wobble
saw, replace the $\mathrm{k}^{\prime \prime}$ whit. Left hand thread socket head grubscrew into the spindle end.

(a)


HON TO EIT DADO HEAD
A dado head is made up of two outside saws and Give inner cutters. Various combinations of saws and cutters can be used to cut grooves from ${ }^{6 \prime}$ to \% $^{\prime \prime}$ ( 3 mn to 22 nm) wide. Innex cuteers are heavily swaged and must be arranged so that the heavy portion falls in the gullets of the outside saws, as shown in Fig. I7 (a).

Fig. 17 (b) shows how the saws and cutters overLap, "A" being the saw and "p" being the inside cutter:

A $4^{\prime \prime}(6 \mathrm{~mm})$ groove is cut by using the two outside saws fitting the ground teeth directly opposite as shown in Fiq. 17 (c), in order to allow clearance for the slight set of the saw teath.

The dado head is secured to the saw spindle by means of a special flange as shown in Fig. 18. To fit dado head remove the table insert. fiving knife complete with sawguard, front saw flange znd the $/ y^{m}$ wit. left hand thread socket head grubscres fom the and of the spindle.

Fit the outer saws and required inner cutters on the spindle and lock in position with the special front flunge and $\mathrm{F}_{\mathrm{s}}$ whit. left hand thread hexagon head bolt supplied

The table insert Ref. No. $1030 / 44 A$ should be used when dado head is fitted.

When the job is completed with the dado head replace the ${ }^{\prime \prime}$ whit. left hand thread socket head grubscrew in the spindle end.


HOW TO EIT MOULDING CUTTERBLOCK
The cutterblock is 4㗊" dia. $\times 15 / 16^{\prime \prime}$ wide (124 mm * 24 mm ) and takes $5 / 32^{\circ}$ ( 4 mm ) and $\mathrm{m}^{*}$ ( 6 mm ) thick cutters. The cutterblack is secured to the spindle by means of special flange, as shown in fig. I9. The procedure when fitting the cutterblock is identical to that when fitting the wobble saw and the dado set.

The table insert Ref. No. $1030 / 45$ should be used when the cutterblock is fitted.
when using the cutterblack it is necessary to face the fence with a mood facing the approximate sizes for such a facing as shown in Fig. 20 to span the knives so that only the required amount of knives are exposed when making a moulding.

The facing is secured to the fence with wood screws through holes provided.

Before securing the knives always ensure that. the slots and knives are free from sawdust and dirt.


SAEETY PRECAUTIONS
Always adjust the guard to protect as much of the saw as possible and fit the Iiving knite $a^{\text {a }}$ ( 6 mm ) behind the 5 aw at the rear. These adjustments are previously described.

Use a push stick as Fig. 21 as much as practicable when teeding timber to avoid accident.

When changing equipment always isolate the machine electrically.
SAW MAINTENANGE
Efficient operation of a circular sav depends on true running of the saw spindle and the collars being perfectly square on the faces with the axis of the spindle, it must run at the correct peripheral speed to ensute straight cutting.

The Bursgreen Cixculaw Sew Bench embodies all these requirements and provided the sawblade is maintalmed in a sharp condition with the teeth correctly sharpened and set, efficient service. will be given.

Betore putting new saw to use, it is essential that it is "ramged down" on the teeth, to ensure each tooth is cuttimg and to manntain true ruming.


BANGING
Ranging down should be done on a new saw or any saw after the fourth or fifth re-shampening.

To range down a saw feed a square edged abrasive tlock: in wooder holder. as shown in Fig. 22. lightly against the sawteeth whilst inning. The saw should then be removed and the tops of the teeth filed to zemove the ranging marks on the points.

SAW SHARPENING
Do not run a saw when blunt, remove and re-sharpen,
To sharpen by hand, hold the saw rigid in a vice
as shown 1 E Fig. 23 then proceed to sharpen the saw.
With rip saw teeth. chisel edges and square faces are required see Fig. 24. Sharpen by giving each tooth an equal number of strokes with a flat faced saw file with rounded edges. At the same time file the qullet, taking cate to keep the gullet woll roundec.

With a crosscut saw points are needed with back and front bevels as Eig. 25.

In the course of repeated filing the teeth lose the ofiginal shape and the gullets shallow. To restore the shape of each tooth, fstential for satisfactory performance, it is necessary to grind the saw on a saw sharpening machine. These machines axe usually of the automatic type and feed each wooth giving equal spacing or pitch.


SEITING
sufficient to give clearance to the body of the saw, so that there is freedom from friction between saw and timber. It is generally accepted that the teeth are "spring set". i.e. the tips of alternate teeth are bent to the right and left as shown in Fig. 26. For good sawing the amount of set on each side of the saw must be identical. otherwise the saw will run to one side. To check the set, cut into a pieco of wood a few inches when a small even triangle should be as in Fig. 27.

The exact amount of set each side vaxies with the timber being cut, usually .010" to $.015^{\prime \prime}(.3$ mm to $.4 \mathrm{~mm})$

For clean cutting, just suffieient should be allowed to prevent tending and heating. More set is required for wet. woolly timber, than for dxy. close grained timber and the amount of set is greater for crosscutting saws than those for ripping.


MACIINE SETTING
We can supply a small machine for efficiently setting the teeth as illustrated in Fig. 2c. and w:it deal with saws $8^{\prime \prime}$ to $36^{\circ}(202 \mathrm{~mm}$ to 910 mm$)$ diameter. The micrometer dial incicates accurate reading of the amount of set in thousandths of an inch.



HAND SETITNG
Whare the number of saws does not warrant a machine being instaliad the saws are set by hand using a tool as shown in Fig. 29. This toal is provided with six notches to take saws 8 to 14 gauge thick. while the amount of "set over" is cerived Ey using the gauge shown in Fig. 30.

For this process of setting, the saw should be securely clamped in a vice.


| Ref．No． | Patt Mo． | No．0ti | Descxiption | Bef．${ }^{\text {N }}$ | Part No． | No．Off | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | c－1030／6 | 2 | Foot for base． | 22. |  |  | $3 / 16^{*}$ whit．$\times 12^{*}$ long nicked |
| 2. |  | 16 | \％＇cacmium washer． |  |  |  | grucscrew． |
| 3. |  | 15 | 受 whit．$x$＂ $3^{\prime \prime}$ long hexagon | 23. | C－1030／9 |  | Fingerplate． |
|  |  |  | head cadmium bolt． | 24. | B－1030／36 | 1 | Eence front slide tar（std）． |
| 4. |  | 6 | Fillets for base． |  | B－1030／76 | 1 | Fence front slide tar（50＂ |
| 5. | E－1030／7 | 1 | Base． |  |  |  | capacity）（1260mm capacity）． |
| 6. | 84 ADS | 1 | MEM Starter（3HP，50cycle） | 25. | B－1026／4 | 1 | Fence tack slide kar（Std．） |
|  | A．T． 3 | 1 | Brook starter（3HP，bOcycle）． |  | B－1030／77 | － | Fence tack slide tar（50\％ |
|  | 2．T． 3 | 1 | Brook starter（5HP，50cycle） |  |  |  | capacity）（1260m capacity）． |
|  | 2．1．3 | 1 | Brook starter（5HP：60cycle） | 26. | C－1030／10 | 1 | Sam guard． |
| 7. |  | 2 | Spectal fillet for tase． | 27. |  | 1 |  |
| 8. |  | 6 | $5 / 16^{\text {² }}$ whit．$x$／3 long hexagon head cadmium bolt． | 28. | $A-1026 / 60$ | 1 | head tolt． <br> Riving knife distance piece． |
| 9. | C－1026／7 | 2 | Trumion trapping plate． | 29. |  | 1 | ＊＊whit，$\times 1$ long stud． |
| 10. |  | 4 | ＊＂whit．x 1／${ }^{\text {\％}}$＂long socket | 30. | B－1030／80 | 1 | Riving krife． |
|  |  |  | head capscrew． | 31. | Patt．No． 32. | 1 | 1／3 dia．plastic handwheel． |
| 11. |  | 2 | 1／4＂whit．x ${ }^{\prime \prime}$ long xound head screw． | 32. |  | 1 | 考果 whit． <br>  |
| 12. | E－1026／17 | 1 | Angle indicator rule． |  |  |  | spring dowel． |
| 13. |  | 2 | 㘳＂whit．cacmium nut， | 33. | A－1030／31 | 1 | Saw guard pivot． |
| 14. |  | 2 | 者 $^{\prime \prime}$ whit．$\times 1 / \%^{\prime \prime}$ lono nicked | 34. | D－1030／1 | 1 | Main table． |
|  |  |  | grubscrew． | 35. | C－1030／44A | 1 | Eingerplate for $8^{3}$ dia．dado set |
| 15. |  | 4 | 屎 whit．nut． | 36. | $0-1030 / 448$ | 1 | Eingerplate for $\mathrm{B}^{\text {² }}$ dia．woble |
| 16. |  | 10 | 者＂B．S．F．washar |  |  |  | 5aw． |
| 17. |  | 4 | 薬 whit．$\times 18^{\prime \prime}$ long stud． | 37. | C－1030／45 | 1 | Eingerplate for $4 \%^{\text {\％}}$ dia． |
| 13. |  | 6 | 乽＂whit．$x$ 1／4＂long hexagon |  |  |  | cutterblock． |
| 19. | C－1030／5 | 2 | head bolt． Extension table． | 38. 39. | $E-1030 / 2$ | $\frac{1}{2}$ | Mainframe． <br>  |
| 20. | A－1026／51 | 4 | Fence slide bay distance piec |  |  |  | oilite kush． |
| 21. |  | 4 | $3 / 16^{\text {\％}}$ whit．Locknut． |  |  |  |  |



## SAW SPINDLE ASSEMBLY





| Ref．Ho． | Part 相。 | No．Off | Descxiotion | Ref．No． | Paxt No． | No．off | bescription |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 130. | B－1026／36 | 1 | Rip fence back bracket． | 146. | A－1026／56 | 1 | Rip fence eam pivot pin． |
| 131. |  | 1 | 考＂diam $x$ Lig long groverlok | 147. | A－1026／43 | 1 | Pip fence locking cam． |
|  |  |  | spring dowe 1. | 148. | A－1026／53 | 1 | Rip tence locking mandle． |
| 132. | B－1026／37 | $\pm$ | Mip fence back lock． | 149. | Patt，No． 28. | 1 | 14a dia．plastic ballay whit。 |
| 133. |  | 2 | 每 whit．sexotight mut． | 150. | Patt．No．14． | 1 | $2^{\text {² }}$ dia．plastic handwhee $1,5 / 16^{\text {² bo：}}$ |
| 134. |  | ． | ／4＂doubla coil spring washer． | 151. |  | 1 |  |
| 135. |  | 2 | 1／4 washer． |  |  |  | 01 lit 年 mush． |
| 136. |  | 2 | ／4 whit．$x$ 24＂long round head | 152. | A－1026／42 | 1 | Rip rence pinian． |
|  |  |  | screw． | 153. | D-1026/35 | 1 | Rip fence front bracket． |
| 137. | $\mathrm{B}=1030 / 61$ | 1 | Rip fence plate（special to order mint． | $\begin{aligned} & 154 . \\ & 155 . \end{aligned}$ | $\begin{aligned} & \mathrm{A}-1026 / 55 \\ & \mathrm{~A}-1026 / 44 \end{aligned}$ | 1 | Rip fence locking lever pivot． <br> Rip fence lacking lever ad busting |
| 138. |  | 1 | 夷＊dia．$x$ 舜＂leng grovelok mpring dowel． | 156. | A－1026／38 | 1 | scaew． <br> Rif fence front locking lever． |
| 139. | A－1026／48 | 1 | Rip fence locking plunger bush． | 157. | A－1026／46 | 1 | Rip fence connecting rod nut． |
| 140. | A $-1026 / 49$ | 1 | Rip fence locking plunger spring． | 158. | A－1044／69 | 1 | Spring for fence locking bar． |
| 141. | $A=1026 / 47$ | 1 | Rip fence locking plunger． | 159. |  | 2 | \％whit．locknut． |
| 142. | A－1026／54 | 1 | Rip fence pointer． | 160. | A－1030／37 | 1 | Alp fence comnecting yod． |
| 14.3. |  | 2 |  | 161． |  | 3 |  |
| 144. |  | 1 | gratsetem． <br> f＂whit．locknut． | 162. |  | 3 |  bright cadmium boit． |
| 145. | A－1026／50 | 1 | Rip fence locking plungex pipscrew． | 163. | c－1030／30 | 1 | Rip fence tody． |



PAGE． 12.


## MITRE FENCE ASSEMBLY

| Gef．No． | Pert No． | No．Off | Description |
| :---: | :---: | :---: | :---: |
| 190 | A－1026／172 | 1 | Mitre fence point |
| 191. |  | 1 | $1 / 4{ }^{10}$ whit．$x 3^{3 / 4}$ long cheese head screw． |
| 192. | A－1026／174 | 1 | Washer for mitre fence． |
| 193. |  | 1. |  |
| 194. | Patt．No． 32 | 1 | 1／タ＂dia，plastic handwheol． $5 / 16^{\prime \prime}$ whit． |
| 195. |  | 1 |  |
| 1.96. |  | 2 | ／4／4 whit．thumbscrew． |
| 197. | 日－1030／33 | 1 | Mitre fence tongue． |
| 198. |  | 2 | ／／4＂whit．$x$／ $3^{\prime \prime}$ long coach tolt． |
| 199. | A－1026／68 | 4 | Mitre fence stop plate． |
| 200. | A－1026／73 | 2 | Mitre fence stop plate spring． |
| 201. |  | 2 | 1／4＂whit．wingnut． |
| 202. | B－1026／69 | 1 | Mitre fence stop rod（cranked） |
| 203. | B－1026／69 | 1 | Mitre fence stop rod（straight） |
| 204. | C－1026／168 | 1 | Mitre fence body． |

NOIE：－
When ordering replacement parts quote part No，and Serial No． of machine．


## WOBBLE SAW ASSEMBLY

## （EXTRA）

Ref．No．Part No．No，pff
Description

| 230. | A－1792／127 | 1 | Wottle saw adaptor |
| :---: | :---: | :---: | :---: |
| 231. |  | 1 | 谷＂dia．$\times$ K＂long dowel． |
| 232 | A－1792／130 | 2 | Small wobtle saw collar |
| 233. |  | 1 | ／4＂dia．x \％${ }^{\prime \prime}$ long fluted dowel． |
| 234. | A－1792／129 | 1 | Large plain woblle saw collar． |
| 235. | B－5－72g | 1 | $8^{\prime \prime}$ dia．wotble saw． |
| 236. | A－1792／128 | 1 | Large spigotted woblle saw collar |
| 237. | A－1792／131 | 1 | Wobble saw locknut． |
| 238. | A－1792／135 | 2 | Wobble saw toggle |

NOTE：－
When oxdering replacement parts quote Part No．and Serial No． of machine．


WOBQLING OR GOOVING SAN
This saw can be set to cut any width of groove between 祭 and $1^{\prime \prime}(3$ man and 25 mm $)$ and can be removed from the spindle without disturbing the setting；once set the sam and collars remain tighty locked on screwed sleeve．Maximum depth of cut is $2^{*}(50 \mathrm{~mm})$

An alumindum takle insert is availimble for use with this saw，Ref．No． $1030 / 44 \mathrm{~B}$ ．

A special washer No． $1030 / 97$ is necessary for securing this head onto the saw spindle．

$\frac{\text { WQ KNIEE WEDGE TYPE MOULDING CUTTERALCCK TYEE ORLLB. }}{\text { This cuttertlock is of simple desion and made }}$
This cutterblock is of simple design and tade
clamping of the cutters ensures maximum safety.
The wedge and screws are fasily removed for cleaning
of replacing when worn. The block is 4.07 (124 mm)
diameter $x 15 / 16^{\circ}(24 \mathrm{~mm})$ wide and carives two $5 / 32^{\circ}$
diameter $x \mathrm{~m}^{4} 5 / 16^{\prime \prime}(24 \mathrm{~mm})$ wide and
An alominium table insert is available for use
with this block. Ref. No. $1030 / 45$.
A special flange No. $1030 / 99$ is necessary for
securing this head onto the spindle.


A general purpose hollow ground crosscut saw．

B．5．129．
For plastic materials．

This is our standard range of saws，normally available from stock．Hollow ground saws require no setting． Give minimum saw kerf or wastage and ensure exception． ally clean finish．


EXPANDING GROOVING SAN OR DADO HEAD This tool is recommended for giving smooth
finish toth with and across the grain in hard or soft
woods．It comprises af two $8^{\prime \prime}(203 m \mathrm{~m}$ dameter outer saws $1-\frac{14}{4}(6 \mathrm{~mm}) ; 2-1 / \mathrm{m}^{\text {日 }}(3 \mathrm{~mm})$ and $2-1 / 16^{\mathrm{n}}(1.5 \mathrm{~mm})$ inner cutters for grooves up to 盾（22mm）wide．A special firont saw flange No． $1030 / 43$ is necessary for securing this head onto the saw spindle and ghould be ordered with the head．

An aluminium table insert 3 s available far use with this head，Ref．No．1030／44A．


SOUARE EDGE CUTTERS FOR CUTTERBLOCK．TYPE VZ

yn thick $\times 1,24 \operatorname{long}$
$(6 m m)$
（6mm）$\times(38 \mathrm{~mm})$
High Soeed Stepl Welded to Mild Steel

| Width on cut | $\frac{3}{4}$ | $\frac{1}{14}$ | $1 / 4 \prime$ |
| :--- | :--- | :--- | :--- |
| Paxt No． | $V 22$ | $\sqrt{22}$ | $\sqrt{22}$ |

Solid high speed steel in widths up to 3 ＂（76mm） and high speed steel welded to mild steel in widths up to 2 （ 50 mm ）available in the baf．



TEE HALF LAP:


DOVETAIL HALF LAP (ONE SIDE ONLY).


OPEN MOATISE \& TENON.


MIDOLE HALF LAP.


ENO HALF LAP


MITRED FACE WITH HALF LAP.



TONGUE \& GROOVE


MIDDLE HALF LAP.

LAPPED JOINT WITH GROOVE (USEFUL FOR SHELVING).


BOX JOINT.


MACHINE FITTED WITH SHEET STEEL EXTENSION TABLE AND FLOOR SUPPORTS TO THE RIGHT OF SAW, TO GIVE A MAXIMUM BETWEEN SAW AND FENCE OF 50 (I2TOMM).


SLIDIWG TADLE FITTED TO THE LEFT OF SAW CONVERTS MACHINE TO AN INEXPENSIVE PANEI SAW. MAXMMUM WIDTH OF PANEL WHICH CAN BE CUT $33^{\prime \prime} \times I^{\prime \prime}(B 3 E M M \times 25 M M)$. WHEN NOT REOUIRED TABLE FOLDS OUT OF THE WAY OF THE OPERATOR.


[^0]:    *Included in standard price of machine

