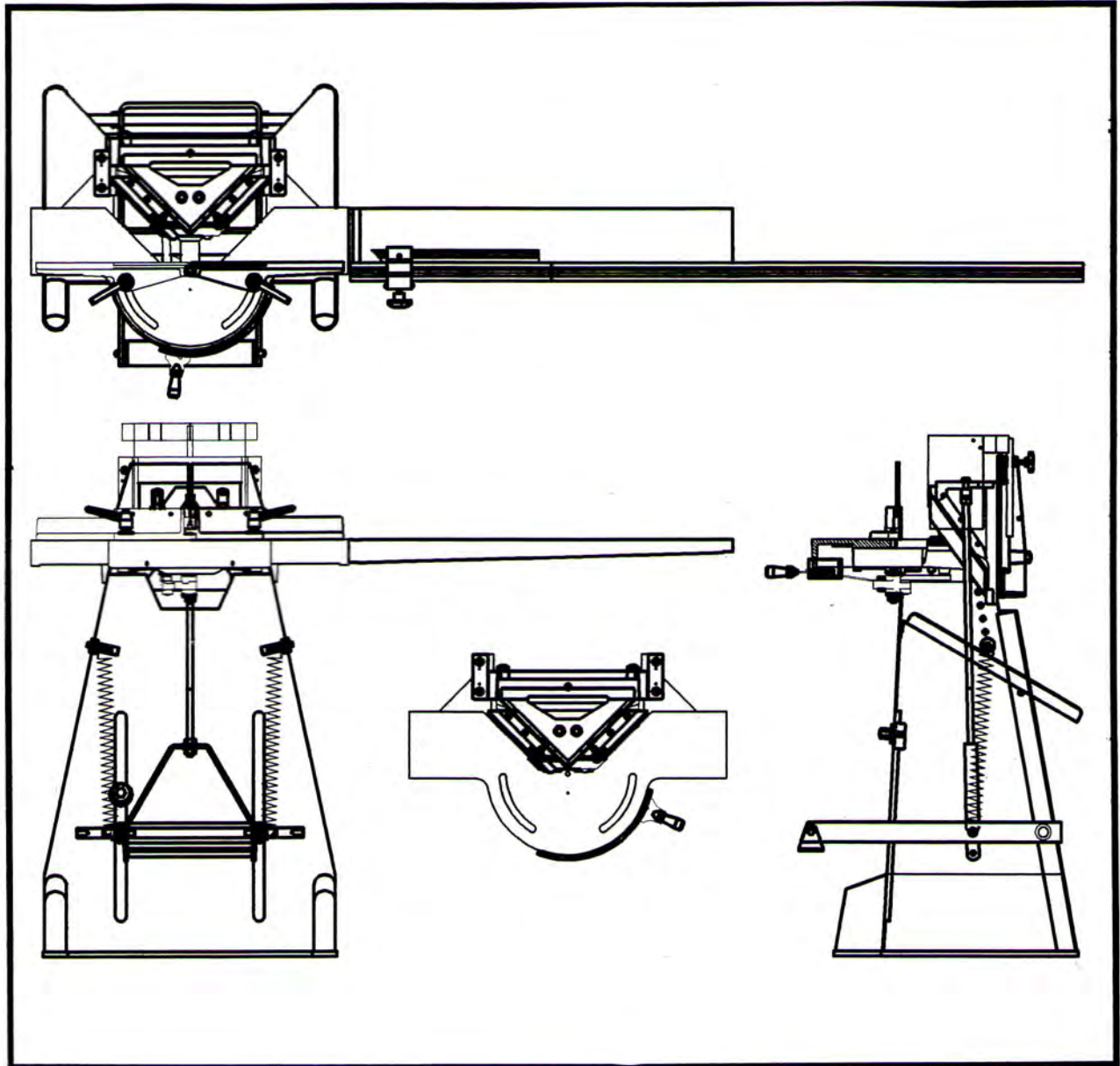




Instruction Manual
for FRAMER Mitre Guillotine
Models VMM, VMI, SMM, SMI



Cedar Court, Walker Road, Bardon Hill, Leicestershire, LE67 1TU, UK

Tel:(44)1530 516 925, Fax:(44)1530 516 929

e-mail:sales@framerscorner.co.uk



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Record your serial number here

Your Name	_____
Model	_____
Serial Number	_____
Date Purchased	_____
Purchased from	_____

**Accessories for your
FRAMER Mitre Guillotine**

- Automatic Rebate Support Attachments**
- Standard Blades**
- Reversible Blades**
- Left Hand Table Extension**
- Right Hand Table Extension and Support**



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Looking after your FRAMER Mitre Guillotine

Looking after your **FRAMER** mitre guillotine is simple but if you follow these rules then you will ensure that your guillotine gives you a long trouble free life.

Cleaning

Always keep your mitre guillotine clean and make sure that small pieces of moulding do not get trapped in any components.

Empty your waste collection bag when it is no more than half full.

Lubricating

The period between lubricating depends on the amount of use but it should be no longer than 2/3 weeks.

Use a general purpose oil to lubricate all sliding or moving parts including:

1. **The vertical Mitre Head "Vee" strips, (Parts 009/012, fig.9, page 27)**
2. **The horizontal Mitre Head 'Vee' strips, (Parts 013, fig. 9, page 27)**
3. **The eccentric bush and horizontal linkage of the Mitre Head, (Parts 021/022, fig 11,page 27)**
4. **Footpedal and Foot pedal bracket pivoting points (Parts 002/008 figure 10, page 29)**
5. **Spring holders (Parts 011/013, fig 10, page 29)**

Wipe away any excess oil so that dust cannot accumulate on important working surfaces or pivoting points.



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Technical Specification

Working Capacity	Models VMM and SMM	Models VMI and SMI
Mitring Angle	45 to 90 degrees	45 to 90 degrees
Minimum length measurement	100mm	4 "
Maximum length measurement	1500mm	60"
Maximum normal height capacity	160mm	6.5/16"
Maximum possible height	200mm	8"

Machine Dimensions

Maximum Height	1120 mm
Maximum Length	2150 mm
Maximum Width	600 mm
Net Weight	105 kg

Model VMM is supplied with vernier measuring system, standard mitring blades, rebate supports, safety guards, waste chute, collection bag, and metric measurements.

Model VMI is supplied as the VMM but with imperial measurements

Model SMM is supplied with sliding measuring system, standard mitring blades, rebate supports, safety guards, waste chute, collection bag, and metric measurements.

Model SMI is supplied as the SMM but with imperial measurements

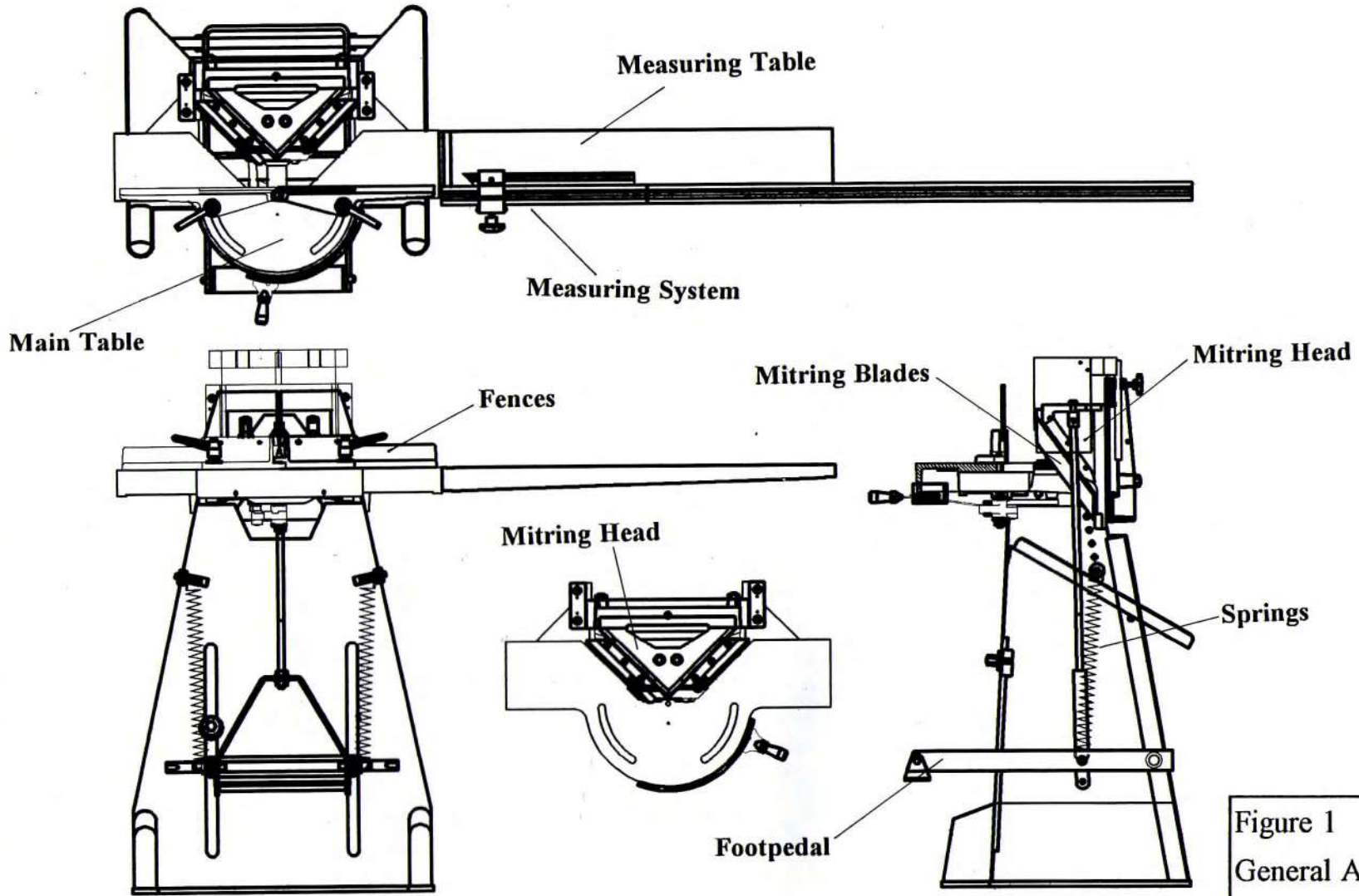


Figure 1
General Arrangement



Instruction Manual for FRAMER Mitre Guillotine Models VMM, VMI, SMM, SMI

General Description

The FRAMER Mitre Guillotine is designed to give you a reliable and safe means of producing accurate mitring with a very good surface finish.

The major parts of the machine, which can be subject to wear are made of Cast Iron and the base or floorstand is fabricated from heavy duty sheet metal.

A general view of the guillotine is shown in fig 1 page 3

The fabricated base is designed to give rigidity to the machine and this is achieved both by the design of the base and also it's weight.

On the top of the base is the main table which is made from cast iron.

At the back of the main table is the cutting head and in front of the cutting head are the fences.

The measuring table with the measuring system fits to the right hand side of the main table

At the back of the base is the footpedal pivoting point and the 2 main springs which are connected to the footpedal are also anchored on either side of the base

All parts are manufactured using production tooling and are therefore easy to replace.

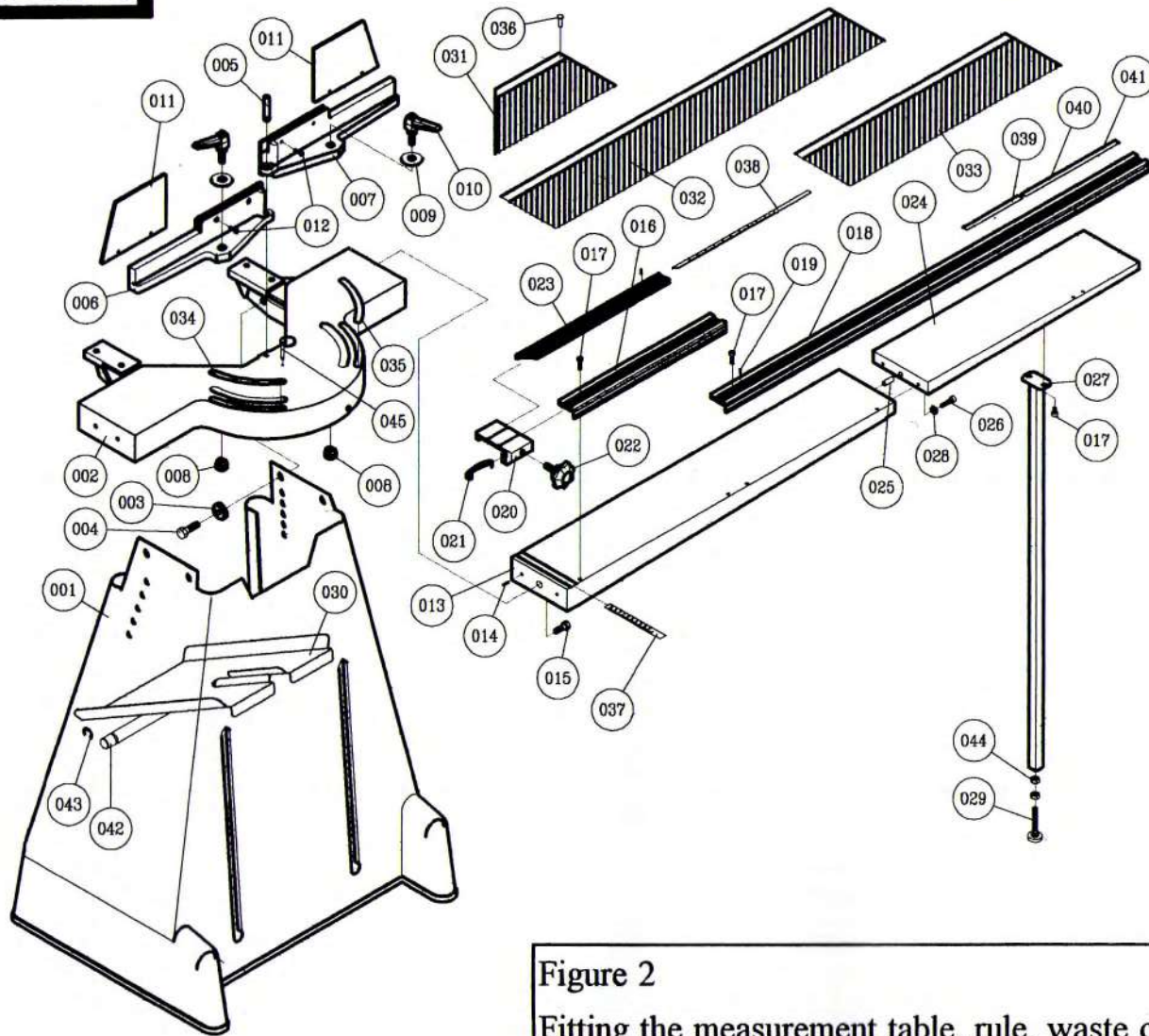


Figure 2
Fitting the measurement table, rule, waste chute and collection bag



Instruction Manual
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When you receive your FRAMER guillotine

Warning - the Mitring Blades are extremely sharp

General

When your guillotine was packed for shipment, all surfaces were protected against corrosion and this protection must be thoroughly removed.

Take great care when cleaning around the Mitring Head as the Mitring Blades are extremely sharp

Mitring Head - Transport Pin (Part 045, Fig 7, page 8)

To ensure that the Mitring Head does not move during transport, a small pin is inserted through the main table and into the Mitring Head mechanism. This pin must be removed before you attempt to move the Mitring Head horizontally.

Length Measuring Table

The measuring table together with the measurement rule should be fitted to the right hand side of the main table. (part 013, fig 8 page 25)

Locate the table using the 2 small locating pins and lock it in position with the M10 Hexagon Headed screw provided.

On models SMM and SMI, the right hand table extension, 024, and table support, 027, (fig 8, page 25) should also be fitted.

Next, the measurement rule should be fitted to the table, again using the locating pins and the smaller screw for locking it in position. (Part 18 fig8, page 25)

Waste Collection

Your machine is provided with a Dust Chute which should be fitted by hooking it over the lip provided on the inside of the base. Access is from the back of the machine.

We also provide a heavy duty polythene collection bag which is extremely effective. Place it

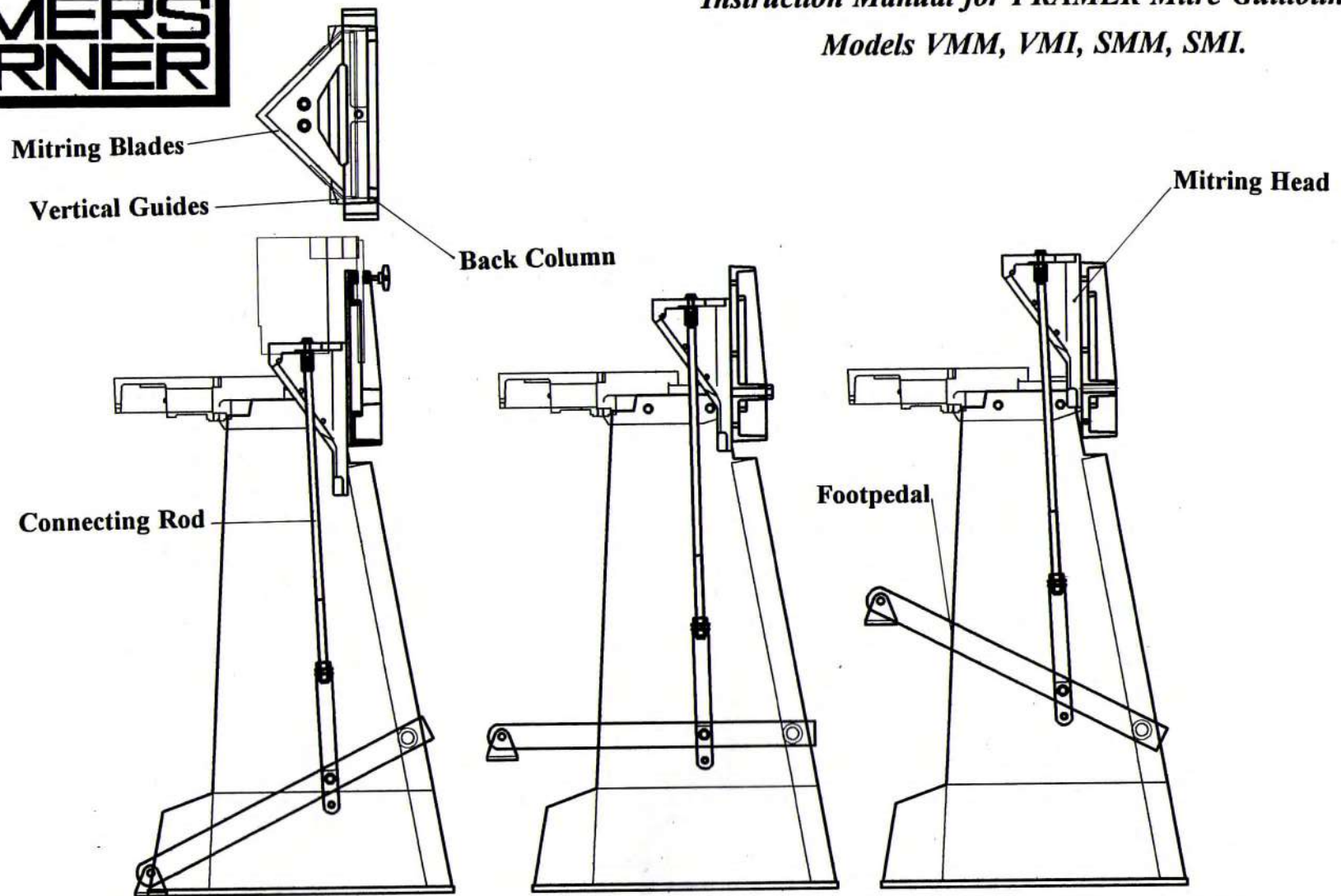


Figure 3
Vertical Movement of Mitring Head



Instruction Manual for FRAMER Mitre Guillotine Models VMM, VMI, SMM, SMI

Functional Description

Mitring Head - Vertical Movement

The mitring is produced by 2 Mitring Blades mounted at 90 degrees to each other, on the Mitring Head.

The Mitring Head moves vertically against the Backslide to which it is attached by the Vertical Mitre Guides.

Attached to the underside of the Mitring Head, is a connecting rod, the other end of which is attached to the footpedal.

Two springs, anchored to the base and attached to the footpedal, hold the Blade Holder in the top position so that when the pedal is pressed downwards, the Mitring Blades travel downwards to mitre the moulding and when the pedal is released, the Mitring Blades return to their top position.

This action is shown in Figure 3 page 10

Mitring Head - Horizontal Movement

Narrow moulding may be mitred with just one press of the footpedal but to cope with wider moulding, the Mitring Head is arranged to move horizontally so as to allow the mitring to be achieved in several 'bites'.

The mitring head Positioning Bracket, part 029, Fig 9, Page 27), is situated at the front of the machine and the Positioning Handle, part 026 protrudes through the slot in this bracket. This Handle is connected via a pivoting block part 022 and link, part 021, to the Mitring Head.

Pressing the Positioning Handle downwards will release it from the 'teeth' on the Positioning Bracket and moving it to the left will take the head to its back position, away from the fences.

The teeth on the Positioning Bracket are designed to hold the mitring head in the required position whilst mitring and they are evenly spaced out except for the last one which is spaced so as to give a final 'finishing' cut.

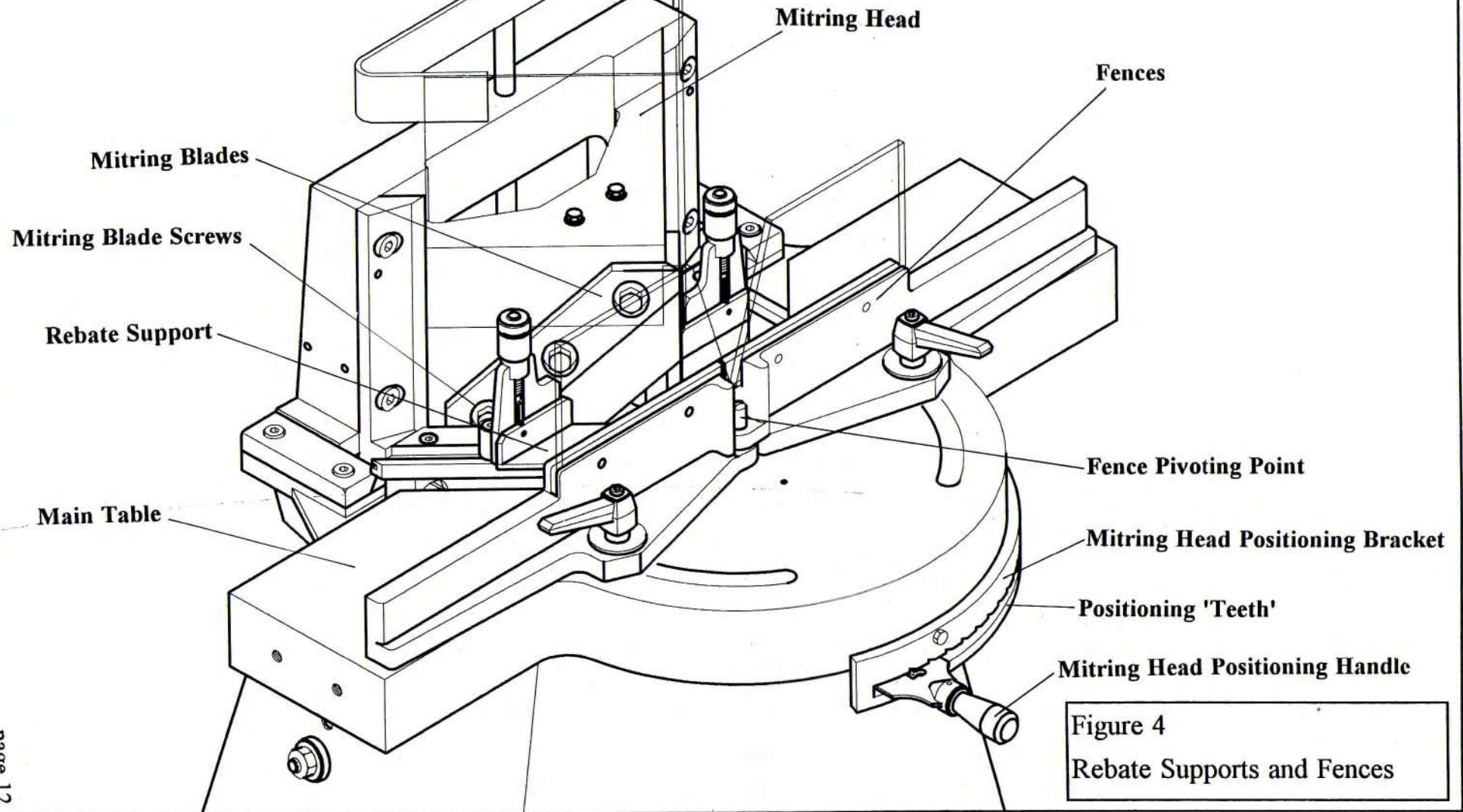


Figure 4
Rebate Supports and Fences

Functional Description continued.

Rebate Supports

Most mouldings need to be supported underneath the rebate so as to prevent damage to the thin rebate edge during mitring.

This damage normally takes the form of splintering or tearing of the wood or plastic.

To prevent this damage, a pair of Rebate Supports are fitted to your guillotine.

These supports have vertical adjustment so that they can be set to the required height of the moulding rebate and they are designed to slide along the slot in the bottom knife guides to cope with different moulding widths

Figure 4, page 12 shows the Rebate Supports

Fences

The setting of the fences in relation to the Mitring Head determines what angle the moulding will be mitred at.

Normally, an angle of 45 degrees is used which will produce the, most common, 4 sided frame with each angle being at 90 degrees.

However you may require to produce 6 or 8 sided frames which will require a different angle setting between the fences and the Mitring Head.

The fences are therefore fitted to the main table so that they can pivot about a central point and can be clamped at any angle from 45 to 90 degrees.

Figure 4, page 12 shows the fences

Vernier Measurement System for models VMM and VMI

Rebate Width Measurement Rule

Measuring Table

Length Measurement Rule

Vernier Rule

Production Stop

Sliding Measurement System for models SMM and SMI

Production Stop

Measurement Lines

Figure 5

Length Measurement Systems



Instruction Manual for FRAMER Mitre Guillotine Models VMM, VMI, SMM, SMI

Functional Description continued

Length Measuring Systems (fig 5, page 14)

Normally when making frames, the size of the frame is given by the inside dimensions. i.e. the size of the art work which can be put inside the frame.

For any given inside dimensions, the outside lengths of the mouldings will vary, depending upon the width of the moulding. The wider the moulding is, the longer the outside length must be to give a particular inside dimension.

It is therefore essential to be able to measure the width of the moulding and to adjust the length stop to take this width into account. The width is known as the rebate width and is the width of the moulding upto but not including the rebate.

We offer 2 different measuring systems.

Vernier Measuring System, models VMM (metric) and VMI (inch).

A rebate width measuring rule is set into the measuring table.

The moulding to be mitred is set against this rule and the width is noted.

This width is then transferred to the Vernier Rule on the Stop Bar and the Stop is then offset from the required inside dimension on the measuring rule by this amount. This will automatically set the stop to give the required inside dimension for that particular width of moulding.

Sliding Measuring System, models SMM (metric) and SMI (inch)

In this system the measuring table is fitted with stainless steel plates which carry measuring lines set at 45 degrees. These measurements give 'inside dimensions'.

The end of the length of moulding to be used is mitred at 45 degrees and then positioned along the 45 degree measuring line so that the inside point of the mitre is on the line to give the 'inside dimension'.

The stop is then set against the moulding and locked in position

Using your FRAMER Mitre Guillotine

Setting the Rebate Supports

Keep your foot off the pedal and with the Mitring Head set away from the fences, place the length of moulding to be mitred against the fences, slide the Rebate Supports forward and adjust the height of each one so that they slide under the rebate with a minimum of clearance. It is important to set this height accurately, if it is too low then the rebate maybe damaged and if it is too high then it will lift the moulding and cause an error in the angle of mitre.

Trim the first end of the Moulding

Move the Mitring Head fully forward and place the first end of the moulding so that approximately 6mm protrudes under the blade. Position the Rebate support and press the footpedal slowly until it is fully down and release the pedal.

Move the Mitring Head forward 6mm and repeat the procedure until a complete mitre is cut.

Setting the Length Measurement

Vernier Measurement Example

If the required inside length is 300 mm and the rebate width measures 40 on the rebate width measurement rule then set the 40 on the vernier rule against the 300 mm line on the length measurement rule and lock the stop in this position. See fig 5, page 14.

Sliding Measurement Example

If the required inside length is 300 mm, position the mitred edge of the moulding so that the inside corner of the mitre is on the 300 mm line of the measurement table. Slide the stop upto the moulding and lock it in position See fig 5, page 14.

Mitring

With the mitred edge against the stop and the rebate supports in position, move the Mitring Head so as to take the first cut. Press the footpedal and release. Move the mitring head in and take another cut. Continue until the mitre is complete, and always make the last cut a 'finishing' cut as discussed on page 10.



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Fault Finding

Fault	Possible Cause	Action
1. Poor finish on mitre	Dull Blades Blades not honed	Resharpen blades (page 23) Hone Blades (page 23)
2. Poor finish after resharpening blades	Blades not set correctly	Re fit blades (page 22)
3. Inaccurate mitre	Rebate Supports too high	Reset Rebate Supports (page 13 and 16)
4. Inaccurate angles	Fences not set correctly	Re set fences (page 13)
5. Moulding is not cut through completely	Mitring Head does not come forward enough	Adjust forward movement of the Mitring Head (page 18)
6. Tearing or breaking of the rebate	Rebate Supports not set correctly	Reset Rebate Supports (page 13 and 16)
7. Inside dimensions are wrong	Measurement stop not set correctly	Reset measurement stop (page 14/15)
8. Glass will not fit frame	No allowance made for glass variation	Add 1-2mm to the inside dimensions to allow for glass
9. Vertical lines in mitre	Mitring blades damaged	Resharpen blades (page 23)

Maintenance and adjustments

Mitring Head - forward position (fig 6, page 19)

After the knives have been changed, it may be necessary to adjust the Mitring Head so that it comes far enough forward to give a clean cut. The mitring blades should protrude 1 - 2 mm beyond the fence line.

Adjustment is provided by means of an eccentric bush.

Move the Mitring Head as far forward as it will go, undo nut 025, use a spanner to turn the head of the eccentric bush 023 until the Mitring Head is in the correct position and tighten nut 025.

Mitring Head - Height Adjustment for 165mm maximum height

(fig 11, page 31 and fig 6, page 19)

After the mitring blades have been sharpened several times it may be necessary to lower the Mitring Head slightly to obtain the 165mm maximum height.

This is achieved by adjusting the position of the lower end of the connecting rod 032, fig 6, page 19, in the yoke 009, fig 10, page 29. Undo the upper nut 016, fig 10, page 29, on the connecting rod 032 and then adjusting the lower nut 016. When the correct position is achieved then lock off both nuts 016.

Mitring Head - Height Adjustment for 200mm maximum height

(fig 10, page 29.)

For normal picture framing the maximum mitring height of 165 mm is correct but it is possible to increase the height to 200mm for joinery work.

To do this the yoke 009 must be positioned in the alternative holes in the footpedal bracket.

It is important that the Mitring Head is supported by placing a piece of wood underneath the blades. Care must be taken due to the sharpness of the blades

Remove the springs 012 from the lower spring holders 011. Remove the lower spring holders and the yoke 009 from the rear holes in the footpedal bracket 001 and place them in the front holes in the footpedal bracket. Attach the springs to the lower spring holders 011 and if necessary adjust the position of the connecting rod as outlined above.

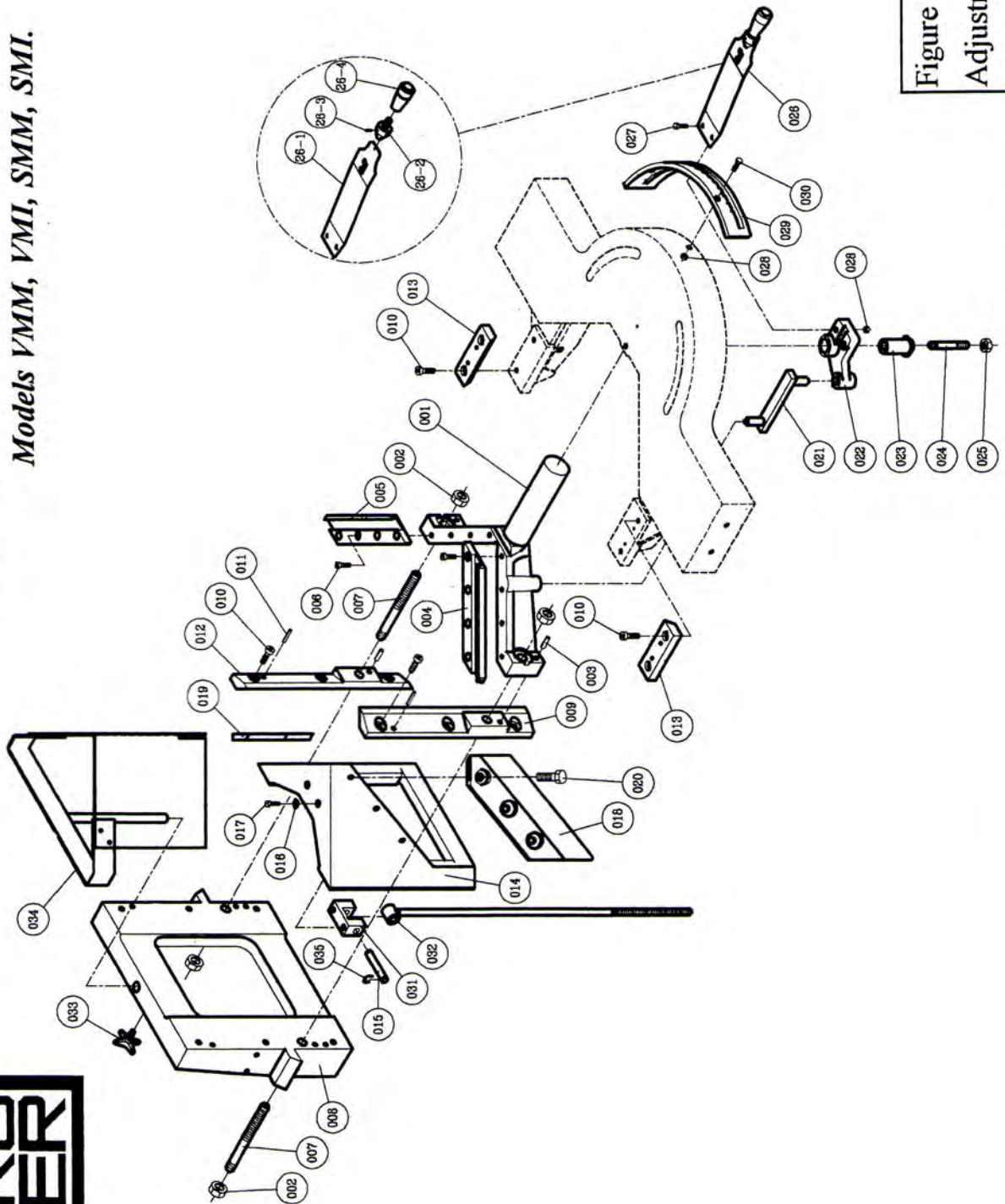


Figure 6
Adjustments

Maintenance and adjustments continued

Spring Tension adjustment

fig 10, page 29

Two springs are attached to the base and extend down to the footpedal bracket. It is these springs which return the Mitring Head to it's top position and hold it there.

The tension on these springs can be varied to suit the operator and to take into account any extension of the springs due to wear.

It is important that the Mitring Head is supported by placing a piece of wood underneath the blades. Care must be taken due to the sharpness of the blades.

Work on one side at a time.

Remove the nut 015 and washer 014 from the upper spring holder 013. Carefully take out the upper spring holder, with the spring attached, and move it to the next higher hole. Re fit the washer 014 and nut 015 to the upper spring holder 013 and tighten.

Repeat this sequence on the other spring.

Footpedal Stop adjustment

fig 10, page 29

A footpedal stop 018/019/020 is provided in the left hand slot in the front of the base.

When cutting small mouldings this stop can be set so as to limit the upward travel of the footpedal and therefore the upward travel of the Mitring Head.

Using this stop will save time and effort

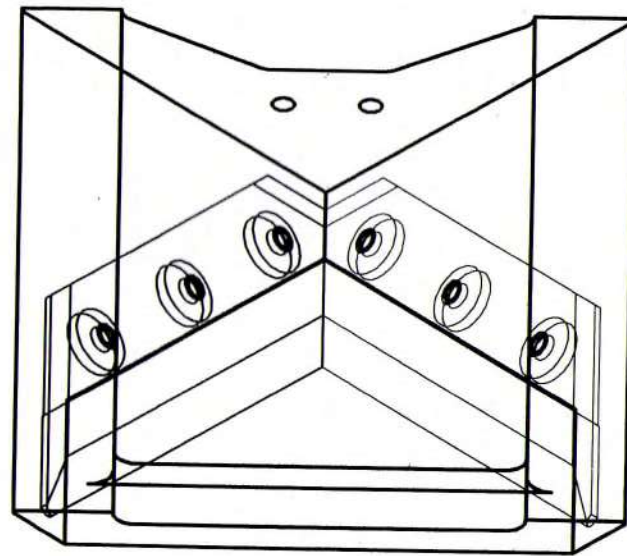
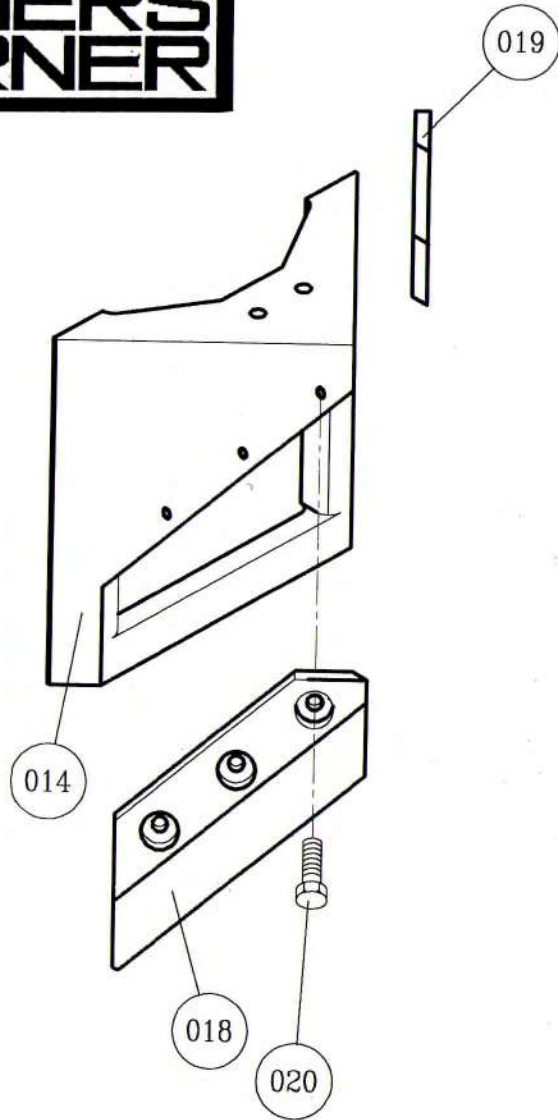


Figure 7
Changing the Mitering Blades

Changing the mitring blades

fig 7, page 21

It is essential that the mitring blades are kept in good condition. As soon as the finish of the mitring deteriorates or any damage is caused to the blades they must be taken off and re ground.

Removing the Blades

Care must be taken due to the sharpness of the blades

Undo the 3 screws 020, in each blade, a spanner is provided.

Remove the top and bottom screw and then press the blade against the Mitring Head whilst removing the third screw.

Remove the blades carefully and put them in a safe place.

Before fitting the new or reground blades

Clean the surfaces of the Mitring Head and the blades so as to ensure that no dirt is trapped between the blades and the Mitring Head when the new or reground blades are fitted

Fitting the new blades

Fit the new blades to the Mitring Head using the 3 screws 020 but do not tighten them. It is advisable to replace worn screws.

Ensure that the knives meet each other precisely.

- 1. There must be no gap between them,**
- 2. Neither blade must protrude ahead of the other one**
- 3. The cutting edges must come together exactly**

Tighten the holding screws starting with the top screw in each blade, then the middle screw and then the lower screw .

Make a trial mitre and check.



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Grinding and honing the mitring blades

The grinding and honing of the mitring blades is very important and it must normally be undertaken by a professional saw or tool grinder.

It is possible to 'flat' or 'hollow' grind the blades but 'hollow' grinding produces the best finish but only the angled surface of the blade must be ground, not the front or back or ends.

Always have your blades ground in pairs even though only one maybe damaged.

Because accidents can happen at any time, it is normal practise to have a spare pair of blades always ready for immediate replacement.

The cutting angle of the blade is 30 degrees

It is essential that after grinding, the blades are honed to remove any sharp edges and this includes honing the actual cutting edge of the blade.

Honing not only removes any burrs but also produces a very even cutting edge which produces the finest finish when mitring

Always take care when handling mitring blades due to their extreme sharpness and weight



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Figure 8-Base and Table Assembly

Part No	Item	Code
001	Base	1802 3001
002	Main Table	1802 3002
003	Washer	1802 3003
004	Bolt	M12 x 25 mm
005	Pivot Stud	1802 3004
006	Left Hand Fence	1802 3005
007	Right Hand Fence	1802 3006
008	Fence Nut	1802 3007
009	Washer	M10
010	Fence Handle	23021008
011	Fence Guard	1802 3008
012	Screw	M6 x 12 mm
013	Measuring Table	1802 3009
014	Locating Pins	6mm x 25 mm
015	Bolt	M12 x 40 mm
016	Short Extrusion/Rule	1802 3010
017	Screw	M6 x 10 mm
018	Long Extrusion/Rule	1802 3011
019	Locating Pin	4 mm x 10mm
020	Sliding Block	1802 3012
021	Spring	1802 3013
022	Locking Knob	1802 3032
023	Stop/Vernier Rule	1802 3014
024	Extension Table (SMM & SMI)	1802 3015
025	Locating Pin	8 mm x 20 mm
026	Bolt	M6 x 25 mm
027	Floor Support (SMM & SMI)	1802 3016
028	Washer	M6
029	Floor Stop (SMM & SMI)	18023041
030	Waste Chute	1802 3017
031	Length Plate (SMM & SMI)	1802 3018
032	Length Plate (SMM & SMI)	1802 3019
033	Length Plate (SMM & SMI)	1802 3020
034	Scale for mitre angle	1802 3021
035	Scale for mitre angle	1802 3022
036	Rivet	Ø 3 mm
037	Rebate Scale	1802 3023
038	Length Scale	1802 3024
039	Length Scale	1802 3025
040	Length Scale	1802 3029
041	Length Scale	1802 3030
042	Support Bar	1802 3031
043	Circlip	ETW12
044	Nut	M8
045	Transport Pin	1804 1015

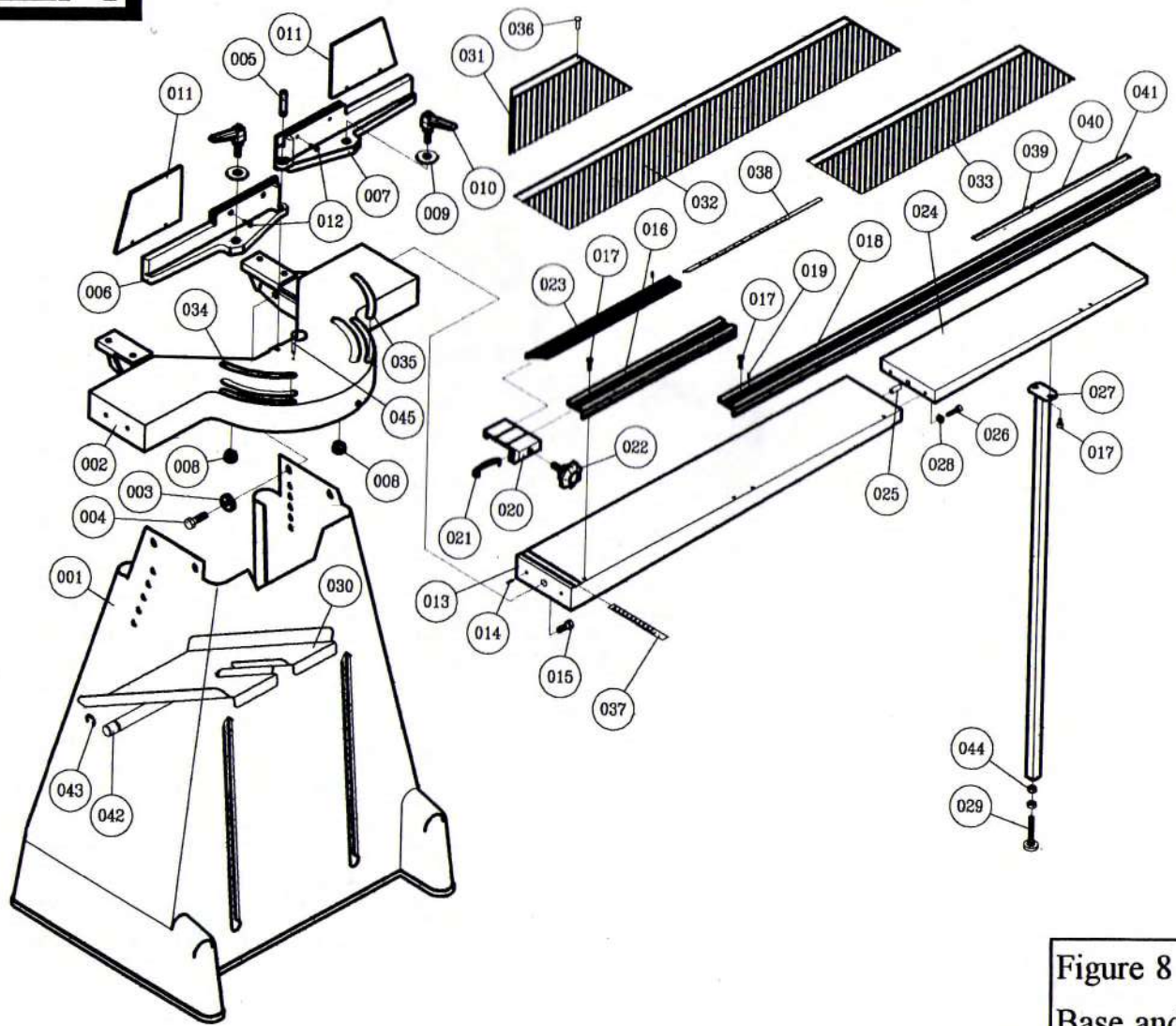


Figure 8
Base and Table Assembly

Figure 9-Mitring Head Assembly

Part No	Item	Code
001	Base	1802 2001
002	Nut	M12
003	Locating Pin	6 mm x 30 mm
004	LH Bottom Guide	1802 2002
005	RH Bottom Guide	1802 2003
006	Screw	M6 x 16mm
007	Stud	1802 2004
008	Back Column	1802 2005
009	LH Vertical Guide	1802 2006
010	Screw	M6 x 20mm
011	Locating Pin	6 mm x 20 mm
012	RH Vertical Guide	1802 2007
013	Horizontal Guide Strip	1802 2008
014	Mitring Head	1802 2009
015	Pivot Bar	1802 2026
016	Washer	Ø 8.3 mm
017	Screw	M6 x 20 mm
018	LH Mitring Blade	1802 2012
019	RH Mitring Blade	1802 2013
020	Knife Screw	1802 2014
021	Pivot Link	1802 2015
022	Pivot Housing	1802 2016
023	Pivot Bush	1802 2017
024	Stud	1802 2018
025	Nut	M10
026-1	Positioning Handle	1802 2019
026-2	Handle Connector	1802 2020
026-3	Split Pin	3 mm x 20 mm
026-4	Positioning Knob	1802 2021
027	Screw	M6 x 25 mm
028	Nut	M6
029	Positioning Bracket	1802 2022
030	Screw	M6 x 25 mm
031	Top Pivot Block	1802 2010
032	Connecting Rod	1802 2011
033	Knob	1802 2023
034	Blade Guard	1802 2024/25
035	Circlip	ETW8

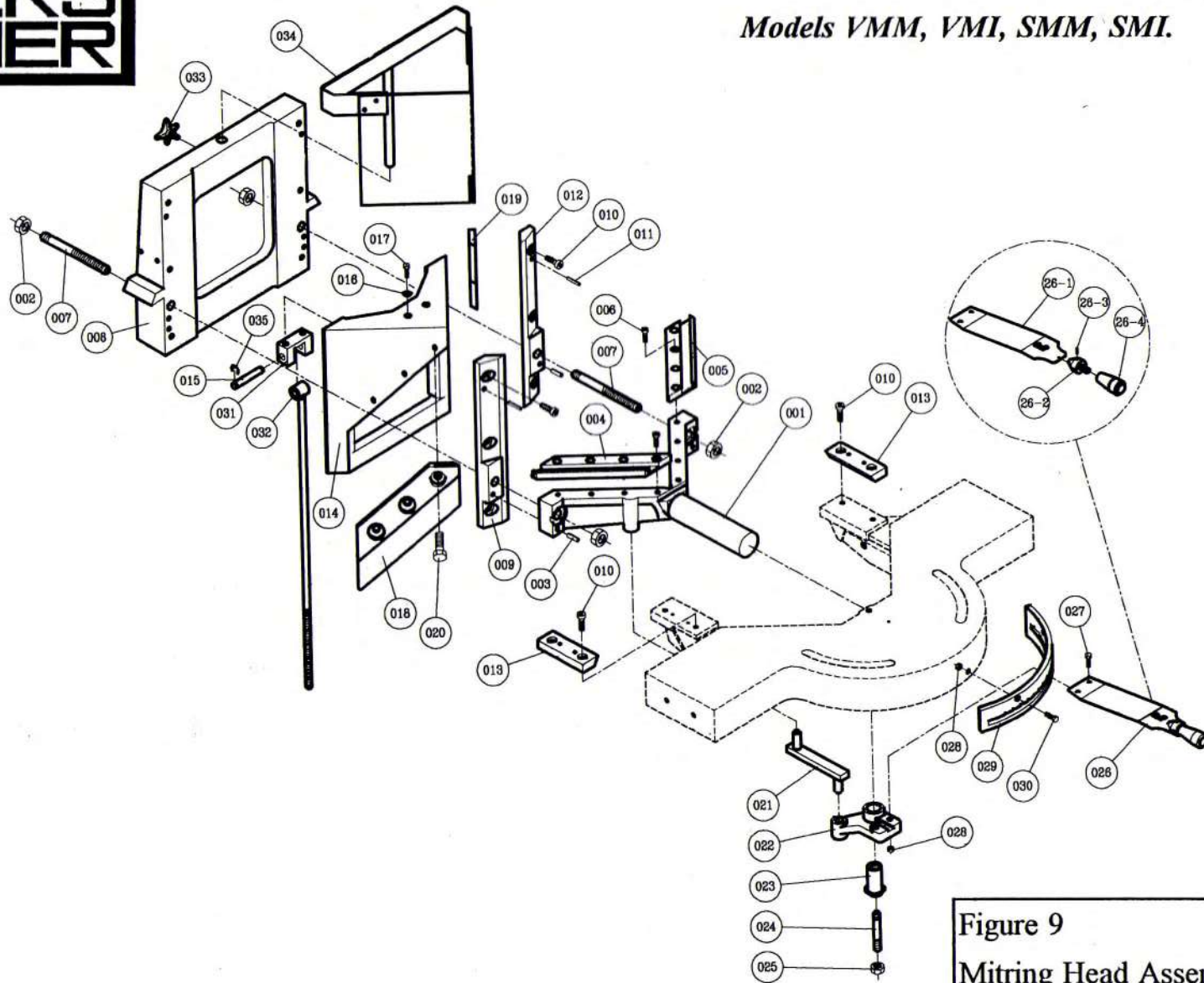


Figure 9
Mitring Head Assembly

Figure 10-Base and Footpedal Assembly

Part No	Item	Code
001	Footpedal Bracket	1802 4001
002	Pivot Bar	1802 4002
003	Collar	1802 4003
004	Grubscrew	M6 x 8 mm
005	Washer	∅ 8.3 mm
006	Screw	M8 x 16 mm
007	Footpedal	1802 4004
008	Pivot Screw	1802 4005
009	Yoke	1802 4006
010	Nut	M10
011	Lower Spring Holder	1802 4007
012	Spring	1802 4008
013	Upper Spring Holder	1802 4009
014	Washer	1802 4010
015	Nut	M10
016	Nut	M12
017	Washer	∅ 13 mm
018	Rear Stop	1802 4011
019	Front Stop	1802 4012
020	Stop Screw	1802 4013
021	Washer	M10
022	Rubber stop	33015023
023	Screw	M5 x 12 mm

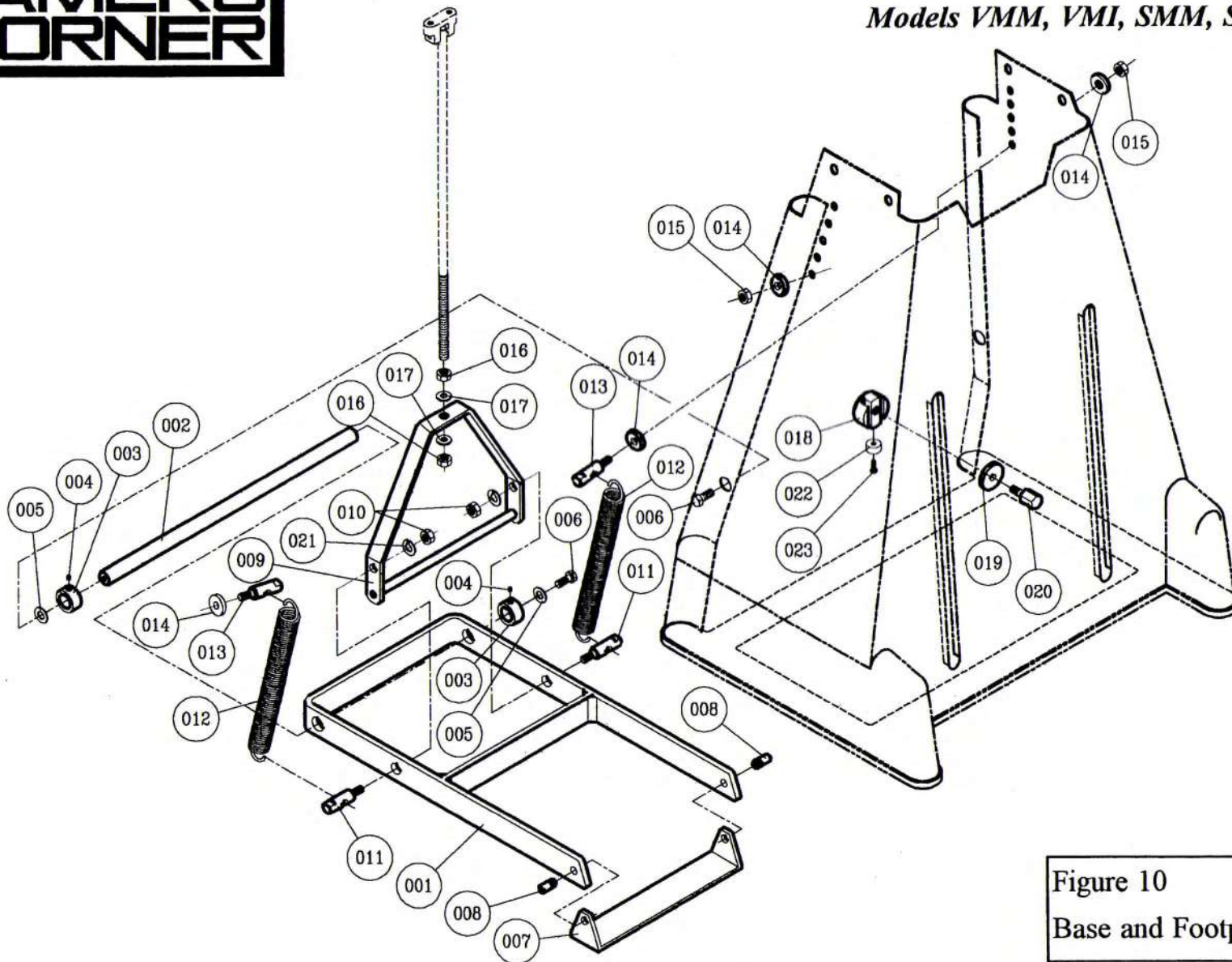


Figure 10
Base and Footpedal Assembly

Figure 11-Automatic Rebate Assembly

Part No	Item	Code
001	Left Hand Slide	1802 5001
002	Right Hand Slide	1802 5002
003	Screw	M5 × 8 mm
004	Left Hand Base	1802 5003
005	Right Hand Base	1802 5004
006	Knob	1802 2023
007	Spindle	1802 5005
008	Sliding Bush	1802 5006
009	Washer	1802 5007
010	Screw	M4 x 12 mm
011	Spacer	1802 5008
012	Screw	M8 x 30 mm
013	Connecting Rod	1802 5009
014	Locating Pin	2 mm x 8mm
015	Screw	M6 x 35 mm
016	Spacer	1802 5010
017	Knurled nut	1802 1001
018	Knurled nut	1802 1002
019	Shaft Screw	1802 1003
020	Holder , Right	1802 1004
021	Holder , Left	1802 1005
022	Rebate Support , Right	1802 1006
023	Rebate Support , Left	1802 1007
024	Bottom Slide , Right	1802 1008
025	Bottom Slide , Left	1802 1009
026	Rivet	3 mm
027	Screw	M6 × 20mm

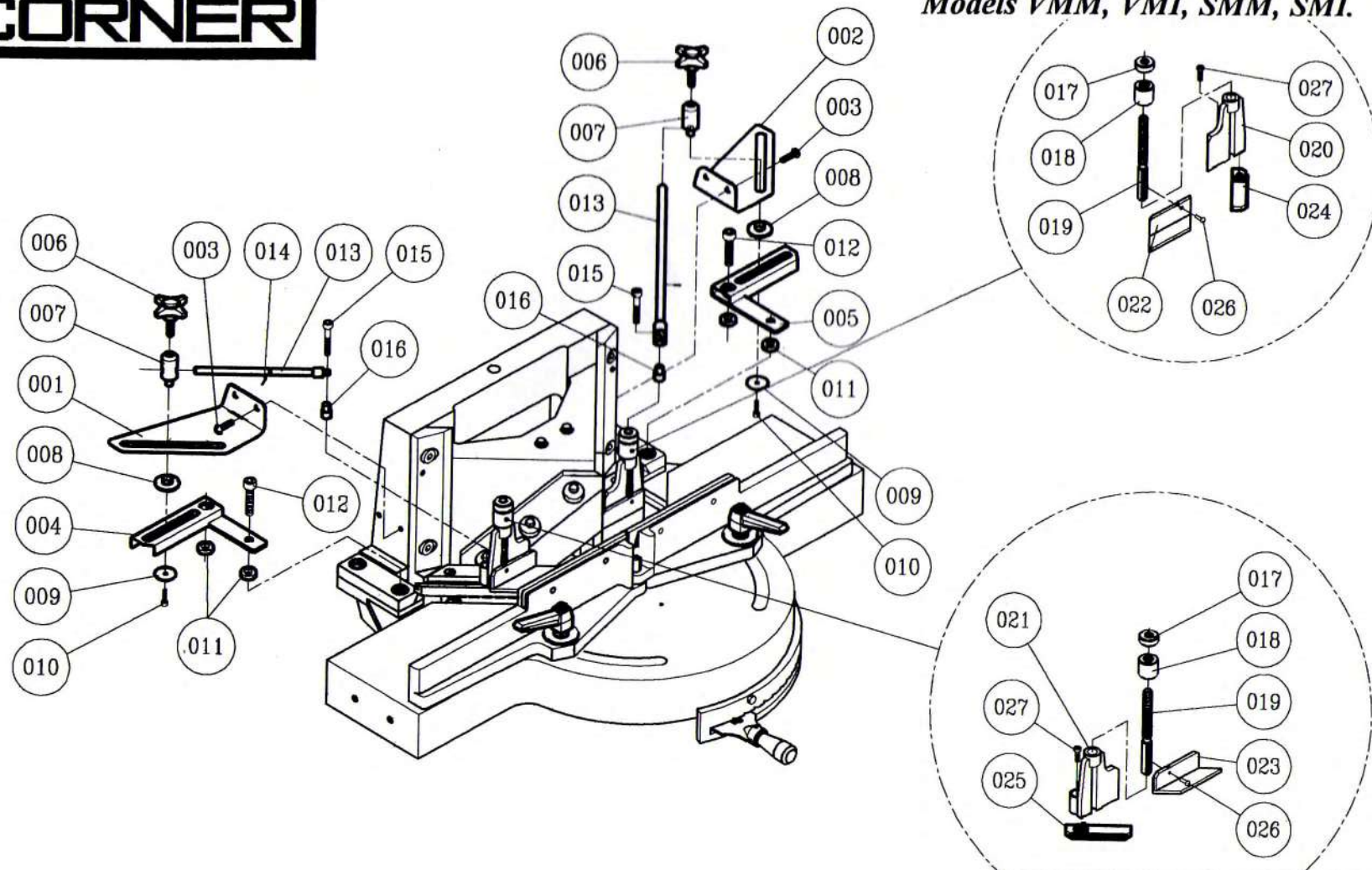


Figure 11
Automatic Rebate Support Assembly