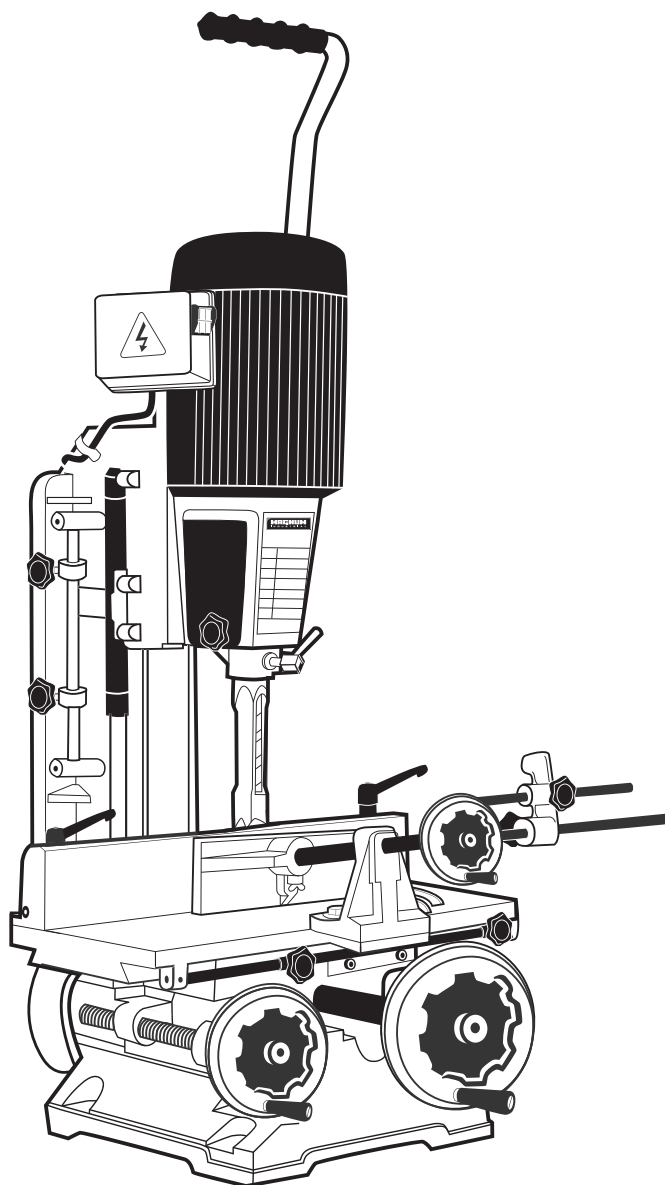


MAGNUM

I N D U S T R I A L

MODEL NO.: MI-77200



OPERATING MANUAL

RULES for SAFE OPERATION

MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

To help ensure safe operation, please take a moment to learn the how to operate the machine and understand its applications and limitations, as well as potential hazards. KMS Tools and Equipment disclaims any real or implied warranty and holds itself harmless for any injury that may result from the improper use of its equipment.

- Do not operate the mortiser when tired, distracted or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
- Ensure your working area is well lit and free of debris.
- Keep children and visitors at a safe distance when the mortiser is in operation. Do not permit them to operate the mortiser.
- Prevent unauthorized or unsupervised use by child proofing and tamper proofing your shop and all machinery with locks, master electrical switches and switch keys.
- Stay alert! Give your work your undivided attention. Even a momentary distraction can lead to serious injury.
- Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well-ventilated area and whenever possible use a dust collector. Wear face, eye, ear, respiratory and body protection devices.
- Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the mortiser is in operation.
- Remove adjusting wrenches, tools and other clutter from the machine and the table surface before using the machine.
- Keep hands well away from the chisel and all moving parts. Use a brush, not hands, to clear away chips and dust.
- Secure chisel and auger bit before using the mortiser
- Always use a clean, properly sharpened chisel and bit. Dirty or dull bits and chisels are unsafe and can lead to accidents.
- Ensure that the key and adjusting wrenches have been removed before turning power on.
- Use suitable workpiece support if the workpiece does not have a flat surface.
- Hold material firmly against the table.
- Do not work on long stock without adequate support on the outfeed end of the table.
- Do not force this machine. The mortiser will perform better and more safely when working at the rate for which it was designed.
- Avoid working from awkward or off balance positions. Do not overreach and keep both feet on floor.
- Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, properly re-attach it before using the tool again.
- Never leave the machine unattended while it is running or with the power on.
- Never stand on machinery. Serious injury could result if the tool is tipped over or if the cutting tool is unintentionally contacted.
- Always disconnect the machine from its power source before servicing or changing accessories, before performing any maintenance or cleaning, or if the machine will be left unattended.
- Ensure the switch is in the OFF position before plugging in the power cord.
- Make sure the machine is properly grounded. If equipped with a three-prong plug it should be used with a three-pole receptacle. Never remove the third prong.
- Do not use this mortiser for other than its intended use. If used for other purposes, KMS Tools and Equipment disclaims any real or implied warranty and holds itself harmless for any injury that may result from that use.

ASSEMBLY INSTRUCTIONS

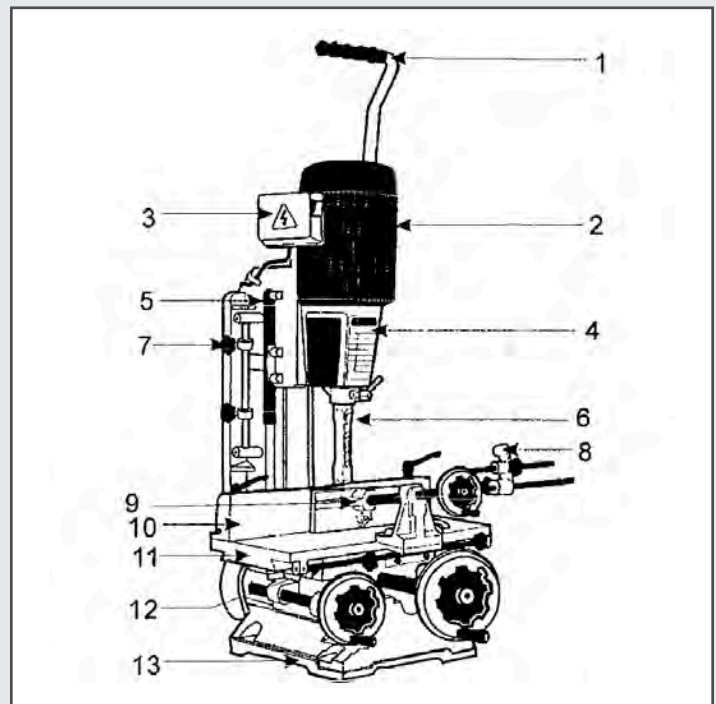
MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

- Before you assemble your mortiser, review the parts breakdown and keep it ready for reference.
- Start by removing the parts from the packaging.
- Carefully check the packaging for small pieces before you continue.
- Lay out the parts on a large, clear and unobstructed area and ensure that all parts are accounted for.
- Remove the protective coating from all surfaces using a rag dipped in environmentally safe degreaser. Do not use lacquer thinner, paint thinner or gasoline.
- Apply a thin layer of paste wax to surface to prevent corrosion
- If you have any questions or require further information, please contact the KMS Tools Service Department at 604.395.4134 or email repairs@kmstools.com

MORTISER OVERVIEW

MAIN COMPONENTS

1. OPERATING HANDLE
2. MOTOR
3. SWITCH
4. HEAD
5. GAS SPRING
6. CHISEL AND BIT
7. DEPTH STOP
8. WORK STOP
9. VISE
10. FENCE
11. TABLE
12. SLIDE
13. BASE



WARNING! Read and understand this owner's manual before operating mortiser

WARNING! Mortiser must be grounded at all times to avoid electric shock!

OPERATING INSTRUCTIONS

MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

ELECTRICAL REQUIREMENTS

The mortiser has been pre-wired at the factory for 115V operations. Before connecting the machine to the power source, check that the voltage of the power source corresponds to the voltage specified on the nameplate of the machine. Connecting to a power source with greater voltage can result in serious injury to the user or cause damage to the machine. If in doubt, contact a qualified electrician.

To avoid shock or fire, replace the power cord if it is worn out, cut or damaged. Do not use the mortiser if the cord is damaged.

INSTALLATION AND SETUP

Secure the mortiser to the optional stand (MI-99772) or any solid workbench or work area. The base has four bolt holes. Fasteners are not included. Choose a work area with enough space on both sides of the mortiser to allow for clearance when working with larger materials. Avoid confined or dark work areas.

CHISEL AND AUGER BIT INSTALLATION

See Figure 2.

1. Gently loosen **LOCK KNOB** and **CHUCK**. Install **CHISEL** and **AUGER BIT** into **CHUCK**. **DO NOT TOUCH** the sharp edges of the **CHISEL** or the tip of the **AUGER BIT**. Instead hold a scrap piece of wood against the edges and tip whenever you adjust the **CHISEL** and **AUGER BIT**.
2. Position **CHISEL** against the bushing with the slot facing to the left or right, so chips can clear during operation. Ensure the **CHISEL** is square to the fence. Tighten **LOCK KNOB** to secure **CHISEL**.
1. Position **AUGER BIT** so the tip extends between 1/16" and 3/16" past the **CHISEL** edge. During operation, the **AUGER BIT** must lead the **CHISEL** into the workpiece to properly extract debris. You may need to adjust this space to suit various applications.
2. Re-tighten the **CHUCK**.

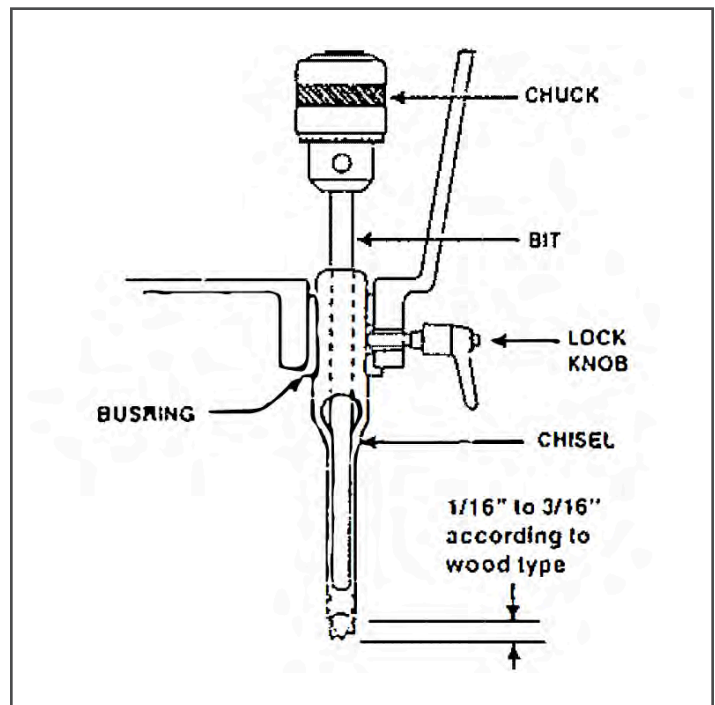


FIGURE 2: INSTALLING CHISEL and AUGER BIT

WARNING! Never leave the machine running unattended!

WARNING! Disconnect the machine from the power source when not in use!

OPERATING INSTRUCTIONS

MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

MORTISING

Perform a few test cuts before starting. Check to see that chips and debris are clearing properly. Pay close attention to the feed rate and adjust your pace to suit the application. If you work too slowly, the tip could burn your workpiece. If you work too quickly, the chips may not clear. For most applications a fast, steady feed rate is ideal.

To avoid overheating, do not position the slot against the blind end of the mortise. This will prevent chips from properly unloading from the chisel.

1. Place your workpiece on the **TABLE** and position it against the **FENCE**. Clamp the workpiece against the **FENCE** with the **VICE**, which you can move forward and backward with the handwheel. Adjust **TABLE STOPS** to suit the length of your mortise. See Figure 3.
2. Set **DEPTH STOP** to the required depth of cut. See Figure 4.
3. Activate the mortiser by pressing On switch. Feed the **CHISEL** and **AUGER BIT** into the workpiece by pulling down on the **HANDLE**. Remember to keep a steady pace. If you work too quickly, the chips won't have time to clear. If you work too slowly, the bit could burn your workpiece.
4. After completing the first cut, move the workpiece one chisel width either left or right, depending on the direction of your cut, and make your next cut. See Figure 5. Make sure the chisel slot is facing away from the cut.
5. When cutting deeper mortises, cut only 1" per plunge. This will allow the chips to clear properly. Also support the workpiece with a piece of scrap wood.

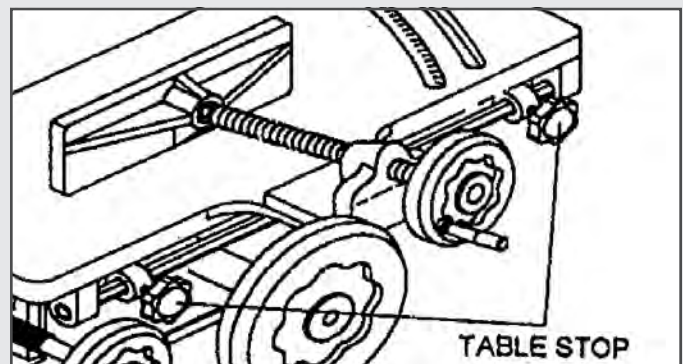


FIGURE 3: Adjusting TABLE STOPS

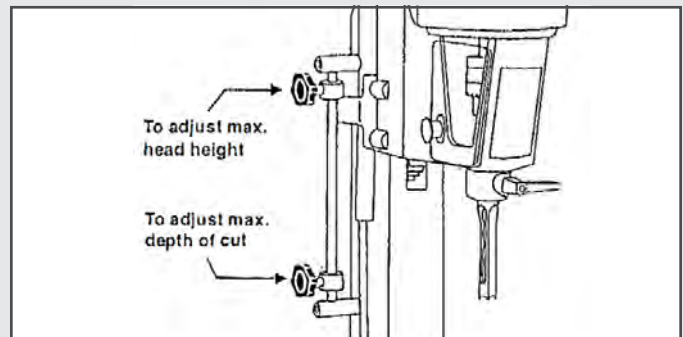


FIGURE 4: Adjusting DEPTH STOP

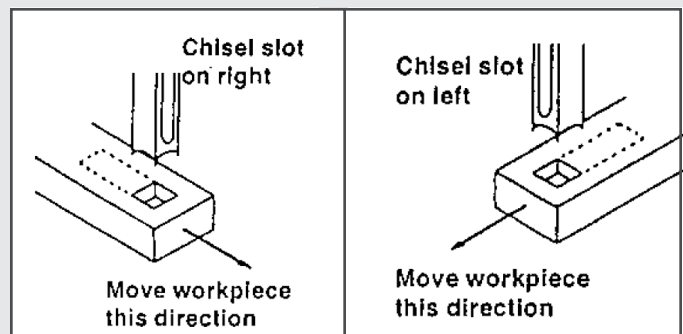


FIGURE 5: Positioning chisel slot

OPERATING INSTRUCTIONS

MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

TABLE AND HEAD ANGLE ADJUSTMENT

TABLE ANGLE ADJUSTMENT

See Figure 6.

1. Loosen both **LOCK KNOBS (A AND B)**.
2. Move **FENCE (C)** to align **SCALE (D)** to the desired angle (0° - 30°).
3. Tighten **LOCK KNOBS (A AND B)**.

HEAD ANGLE ADJUSTMENT

See Figure 7. Take care to hold the head when adjusting the angle.

1. Loosen **SCREWS (E)** with a 19 mm wrench
2. If the head doesn't move, slightly separate the **BASE (J)** and **BRACKET (I)** by tightening **SCREW (H)**
3. Pull the **PIN (G)** outward to move the head to desired angle.
4. Adjust the head to desired angle.
5. Secure head by loosening **SCREW (H)** and tightening **BOLTS (E)**.

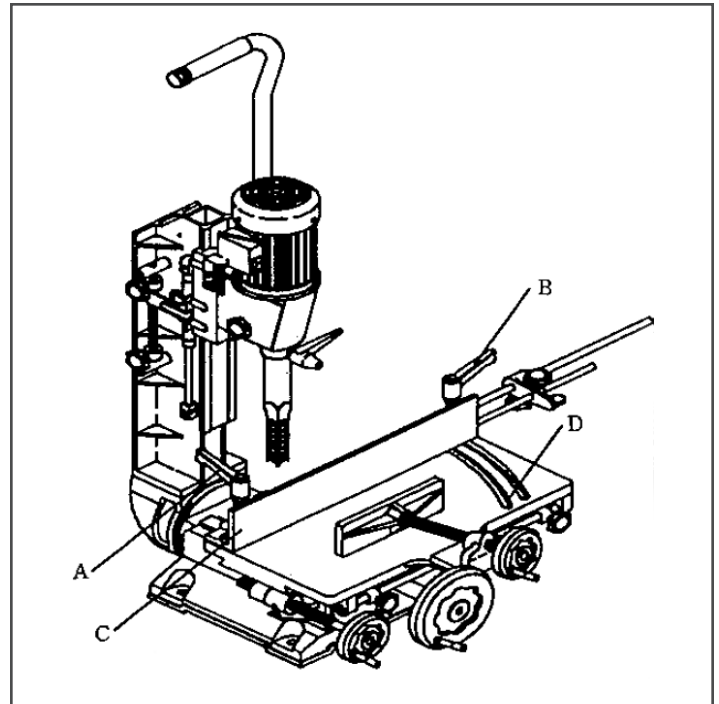


FIGURE 6: Table angle adjustment

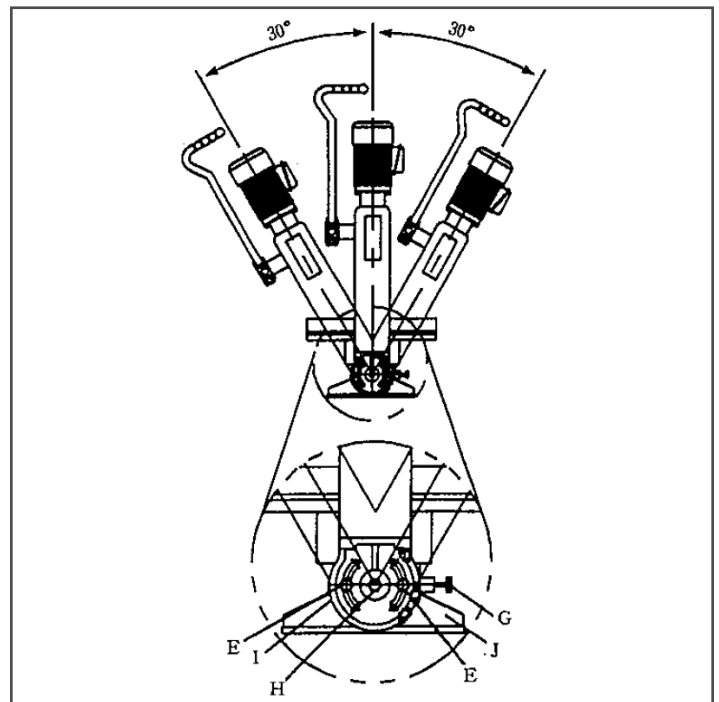


FIGURE 7: Head angle adjustment

MAINTENANCE INSTRUCTIONS FOR MAGNUM INDUSTRIAL MI-77200 1" HEAVY-DUTY MORTISER

SHARPENING BIT AND CHISEL

To ensure high-quality performance and accurate work, keep the **AUGER BIT** and **CHISEL** sharp. A dull **AUGER BIT** or **CHISEL** can overheat and damage your workpiece.

Use a small, smooth file to sharpen the **AUGER BIT**. File the inside edge of the spur, the sides of the brad point and the cutting edge inwards towards the flutes. See Figure 8. Don't sharpen the outside edge of the spur. This can damage the bit.

Use the right size mortise chisel cutter to sharpen the **CHISEL**. Secure the cutter in a carpenter's brace and position the **CHISEL** in bench vise with soft jaws. See Figure 9. Sharpen the chisel by turning the cutter two or three times. Clean the inner corners of the chisel with a small triangular smooth file. Remove any particles from the outside of the chisel with a fine sharpening stone. See Figure 10.

Replace the **CHISEL** and **AUGER BIT** if they are badly worn and difficult to sharpen.

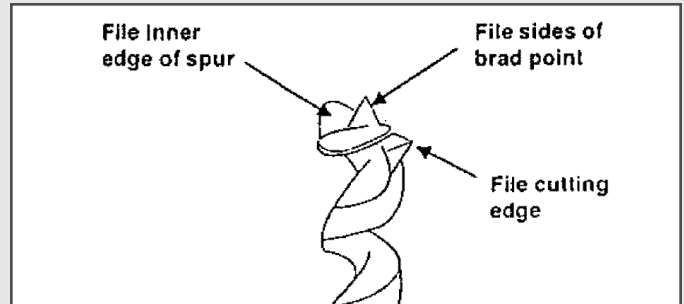


FIGURE 8: Sharpening AUGER BIT

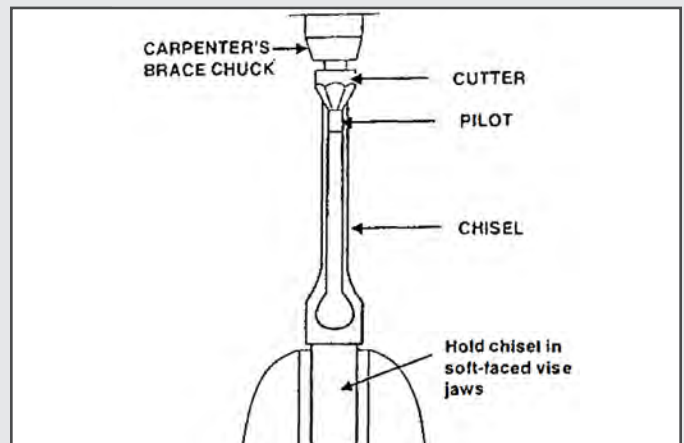


FIGURE 9: Sharpening CHISEL

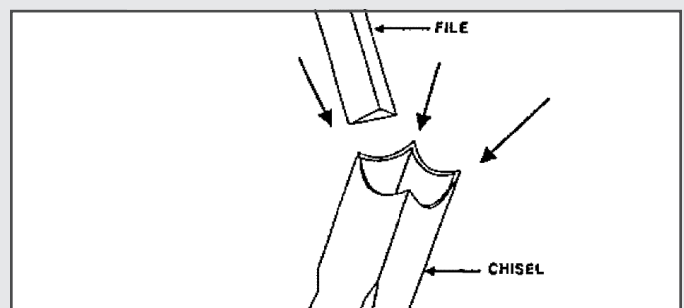
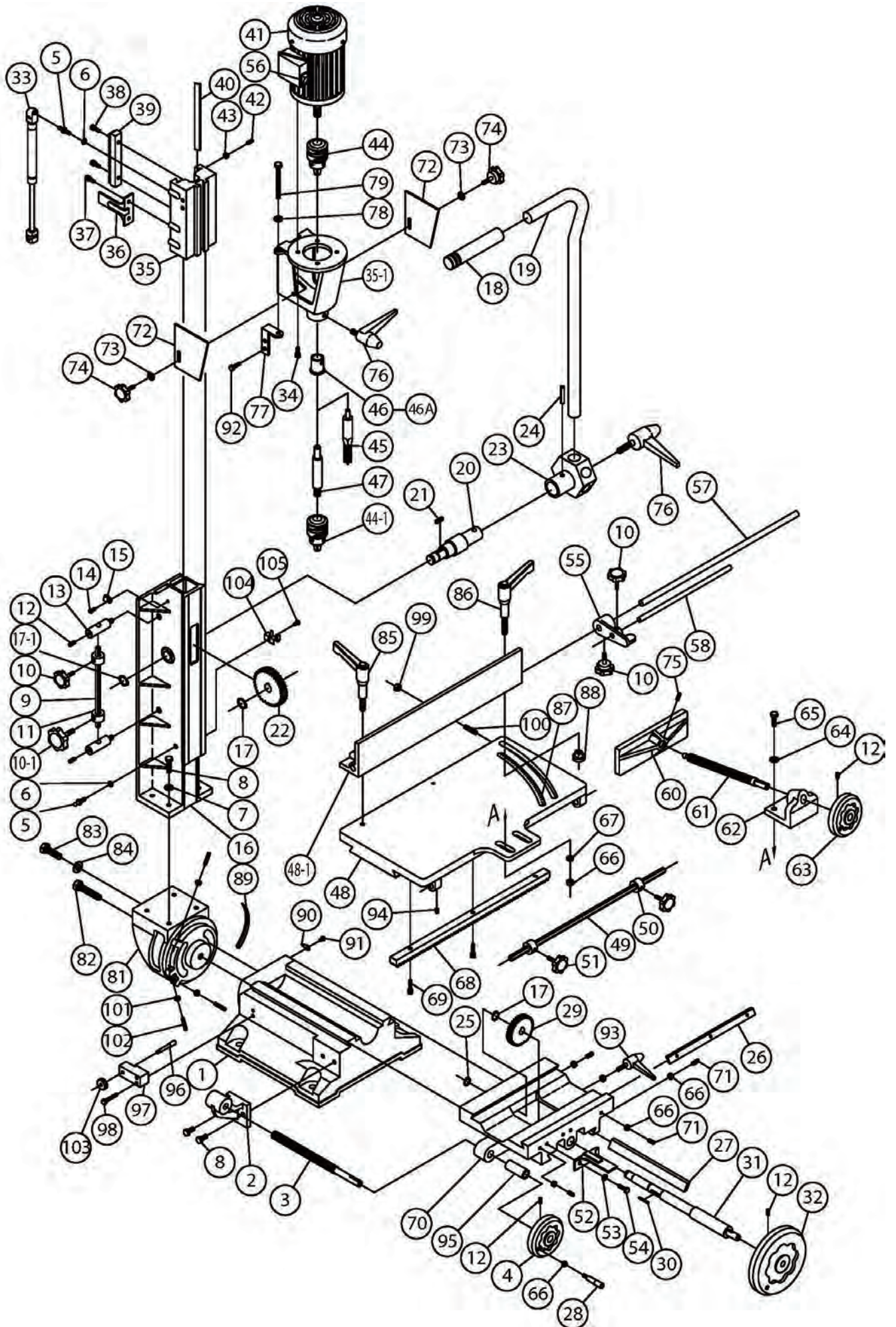


FIGURE 10: Filing CHISEL

Disconnect machine from power source before performing any repairs or adjustments!

Failure to comply can result in harm to the operator and damage to the machine!

Parts Breakdown for MI-77200



Parts List for MI-77200

PART NO.	DESCRIPTION	Q'TY
MI-77200-01	BASE	1
MI-77200-02	ADJUSTING BAR	1
MI-77200-03	ROD SCREW	1
MI-77200-04	5" HAND WHEEL	1
MI-77200-05	SCREW M8	1
MI-77200-06	SPRING WASHER 5/16	1
MI-77200-07	WASHER 5/16	4
MI-77200-08	SCREW 5/16 x 1-1/4	4
MI-77200-09	DEPTH STOP BAR	1
MI-77200-10	KNOB	3
MI-77200-10-1	KNOB (BIG) 5/16 X 3/4	1
MI-77200-11	ADJUSTING SLEEVE	2
MI-77200-12	SCREW 5/16 x 3/8	5
MI-77200-13	BAR	2
MI-77200-14	SCREW 3/16 x 3/8	1
MI-77200-15	CORD CLAMP	1
MI-77200-16	HEAD SUPPORT	1
MI-77200-17	RING	1
MI-77200-17-1	RING	1
MI-77200-18	HANDLE GRIP	1
MI-77200-19	HANDLE	1
MI-77200-20	HANDLE SHAFT 6/15	1
MI-77200-21	PIN	1
MI-77200-22	GEAR	1
MI-77200-23	HANDLE BODY	1
MI-77200-24	PIN 8	1
MI-77200-25	RING 15	1
MI-77200-26	SLIDE PLATE GUARD	1
MI-77200-27	SLIDE PLATE GUARD	1
MI-77200-28	HANDLE 5/16	2
MI-77200-28-1	HANDLE 3/8	1
MI-77200-29	GEAR	1
MI-77200-30	PIN 5/15	1
MI-77200-31	GEAR SHAFT	1
MI-77200-32	HAND WHEEL 6"	1
MI-77200-33	GAS SPRING	1
MI-77200-34	SCREW 1/4 x 1"	4
MI-77200-35	HEAD BODY	1
MI-77200-35-1	HEAD	1
MI-77200-36	STOP PLATE	1
MI-77200-37	SCREW 1/4 x 3/4	2
MI-77200-38	SCREW 1/4 x 5/8	1
MI-77200-39	RACK	1
MI-77200-40	SLIDE PLATE	1
MI-77200-41	MOTOR	1
MI-77200-42	SCREW 5/16 x 3/4	1
MI-77200-43	NUT 5/16	3
MI-77200-44	CHUCK	1
MI-77200-44-1	CHUCK (OPTIONAL)	1

PART NO.	DESCRIPTION	Q'TY
MI-77200-45	CHISEL & BIT	4
MI-77200-46	BUSHING 5/8,3/4	1
MI-77200-46A	BUSHING 3/4	1
MI-77200-47	DRILL SHAFT (OPTIONAL)	1
MI-77200-48	TABLE	1
MI-77200-48-1	FENCE	1
MI-77200-49	SHAFT BOLT	1
MI-77200-50	ADJUSTING SLEEVE	2
MI-77200-51	LOCK KNOB	2
MI-77200-52	LONG STOP PLATE	1
MI-77200-53	SPRING WASHER 1/4	2
MI-77200-54	SCREW 1/4 x 5/8	2
MI-77200-55	LONG STOP BODY	1
MI-77200-56	SWITCH	1
MI-77200-57	LONG STOP BAR (A)	1
MI-77200-58	LONG STOP BAR (B)	1
MI-77200-60	WISE PLATE	1
MI-77200-61	SCREW ROD	1
MI-77200-62	WISE BODY	1
MI-77200-63	HAND WHEEL	1
MI-77200-64	WASHER 5/16	2
MI-77200-65	SCREW 5/16 x 1-3/4	2
MI-77200-66	NUT 5/16	14
MI-77200-67	WASHER 5/16	2
MI-77200-68	RACK	1
MI-77200-69	SCREW 5/16 x 5/8	3
MI-77200-70	SLIDE BODY	1
MI-77200-71	SCREW 5/16 x 5/8	6
MI-77200-72	CHUCK COVER	2
MI-77200-73	WASHER 1/4	2
MI-77200-74	KNOB	2
MI-77200-75	SCREW 1/4 x 3/4	1
MI-77200-76	LOCK HANDLE 5/16 x 3/4	1
MI-77200-77	ADJUSTING BRACKET	1
MI-77200-78	WASHER 3/8	1
MI-77200-79	BOLT 3/8 x 4 7/8	1
MI-77200-81	BRACKET	1
MI-77200-82	SCREW 1/2 x 2 1/2	1
MI-77200-83	SCREW 1/2 x 2 1/3	2
MI-77200-84	WASHER 1/2	1
MI-77200-85	LOCK HANDLE M10 x 96	1
MI-77200-86	LOCK HANDLE M10 x 110	1
MI-77200-87	SCALE	1
MI-77200-88	NUT 5/16	1
MI-77200-89	SCALE	1
MI-77200-90	POINTER	1
MI-77200-91	SCREW M4	1
MI-77200-92	SCREW 5/16 x 3/4	2
MI-77200-93	LOCK HANDLE 5/16x1/4	1

Parts List for MI-77200

PART NO.	DESCRIPTION	Q'TY
MI-77200-94	SCREW 5/16 x 3/8	2
MI-77200-95	SLEEVE	1
MI-77200-96	PIN	1
MI-77200-97	BAR	1
MI-77200-98	SCREW 5/16 x 1	3
MI-77200-99	NUT 1/4	1
MI-77200-100	SCREW 1/4 x 1	1
MI-77200-101	NUT 1/4	3
MI-77200-102	SCREW 1/4 x 1	3
MI-77200-103	NUT	1
MI-77200-104	KEY HOLDER	1
MI-77200-105	SCREW 3/16"	1