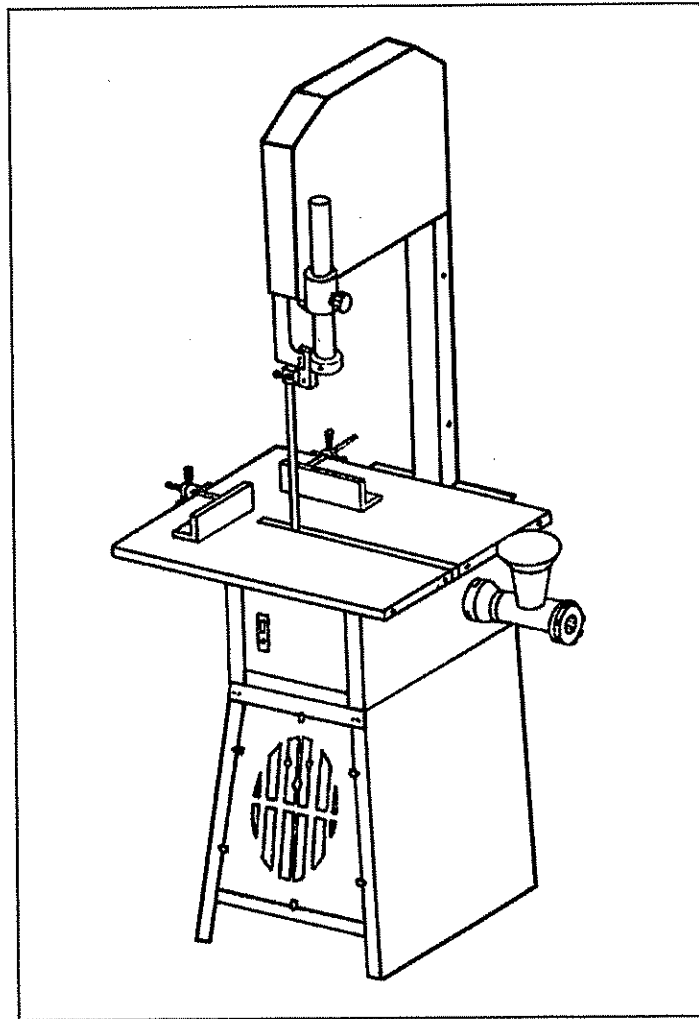


10" MEAT SAW/GRINDER

With 3/4 Horsepower Motor

Instruction Manual



Read this Manual Carefully Before Use

Item# 168650

GROUNDING INSTRUCTIONS

1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug if it will not fit the outlet. Have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment grounding conductor can result in a risk of electric shock. The conductor (with or without yellow stripe) is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
4. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if uncertain whether the tool is properly grounded.
5. Use only extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

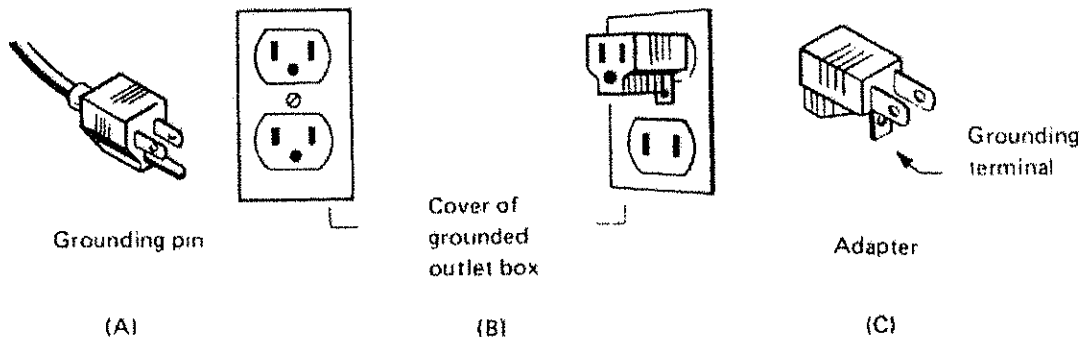
6. Repair or replace damaged or worn cord immediately.
7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in sketch A. The tool has a grounding plug that looks like the plug illustrated in sketch A. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect the plug to a 1-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, etc. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

Note:

The type of electrical plug and receptacle differs from country to country.

Caution:

In Canada only the grounding shown in figure (A) is acceptable. The extension cords should be CSA certified S.J.T. type or something better.



POWER CONNECTIONS

A separate electrical circuit should be used for the power tools. This circuit should not be less than No.12 wire and should be protected with a 20 Amp time lag fuse. Never use long extension cords. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug. Before connecting the motor to the power line, be sure that the electric current is of the same characteristics as stamped on motor nameplate. All line connections should make good contact. Running on low voltage will damage the motor.

IMPORTANT

As with all power tools there is a certain amount of hazard involved with the operation and use of the tool. Using the tool with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may occur.

SAFETY RULES

1. **KEEP GUARDS IN PLACE** and in working order.

2. **REMOVE ADJUSTING KEYS AND WRENCHES.**

Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

3. **KEEP WORK AREA CLEAN.**

Cluttered areas and benches invite accidents.

4. **DON'T USE IN A DANGEROUS ENVIRONMENT.**

Don't use power tools in damp or wet locations or expose them to rain. Keep work areas well lighted.

5. **KEEP CHILDREN AWAY.**

All visitors should be kept a safe distance from work area.

6. **MAKE WORKSHOP KID-PROOF** with padlocks, master switches, or by removing starter keys.

7. **DON'T FORCE TOOL.** Don't force tool or attachment to do a job for which it was not designed.

8. **USE PROPER TOOL.** It will do the job better and safer for the purpose it was designed.

9. **WEAR PROPER APPAREL.** No loose clothing, neckties, rings, bracelets or other jewelry that can get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

10. **ALWAYS USE SAFETY GLASSES.** Also use face mask when cutting. Everyday eyeglasses only have impact-resistant lenses and are NOT safety glasses.

11. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.

12. **DON'T OVERREACH.** Keep proper footing and balance at all times.

13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

14. **DISCONNECT TOOLS** before servicing or when changing accessories such as blades.

15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in OFF position before plugging in tool.

16. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories.

The use of improper accessories may increase risk of injury.

17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped over or if the cutting tool is accidentally contacted.

18. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully inspected. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Damaged parts should be properly repaired or replaced.

19. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of the blade or cutter only.

20. **NEVER LEAVE TOOL RUNNING UNATTENDED.**

TURN POWER OFF. Don't leave tool until it comes to a complete stop.

21. **OPERATION SHOULD BE SUPERVISED BY SKILLED PERSON** if user is not experienced in operating this machine.

SPECIAL SAFETY RULES FOR BAND SAWS

1. ADJUST the upper guide about 1/8" (3.2mm) above the material being cut.
2. MAKE SURE that blade tension and blade tracking are properly adjusted.
3. STOP the machine before removing scrap pieces from the table.
4. ALWAYS keep hands and fingers away from blade.
5. CHECK for proper blade size and type.
6. DO NOT attempt to saw stock that does not have a flat surface unless a suitable support is used.
7. HOLD material firmly and feed into blade at a steady speed.
8. TURN OFF machine if the material is to be backed out of an uncompleted cut.
9. MAKE "relief" cuts before cutting long curves.
10. GET HELP so you do not strain yourself.

CLEANING AND SANITIZING

1. Before using, clean the inside of main body of the machine.
2. Right after use, clean the inside of machine to prevent meat scraps from spoiling inside the machine.

TROUBLESHOOTING GUIDE

<p>PROBLEM: Motor won't start</p>	<p>(A) Band saw is not plugged in (B) Household circuit has fuse or open circuit breaker (C) Power cord is damaged. Replace. (D) Switch is not in "ON" position. (E) Motor requires service.</p>
<p>Band saw blade does not move although motor is running.</p>	<p>(A) Blade tension knob is not tight. Turn off motor, tighten knob. (B) Blade has slipped off pulley wheel. Open cover housing and reposition. (C) Blade is broken. Replace blade.</p>
<p>Blade will not cut or cuts slowly.</p>	<p>(A) Teeth have been dulled by contact with hardened steels or prolonged usage. Replace blade. (B) Blade mounted backwards.</p>
<p>Meat scraps collect inside of band saw.</p>	<p>(A) This is normal - clean out periodically. (B) Remove cover housing and clean out all meat scraps.</p>
<p>Meat scraps in motor housing.</p>	<p>(A) Use vacuum cleaner nozzle on air intake and exhaust grills. (B) Keep workplace clean. Clean up excess meat scraps frequently.</p>
<p>Unable to get blade to track in driver of wheel.</p>	<p>(A) Backing bearing not properly adjusted. (B) Tension wheel not properly adjusted. (C) Damaged or worn blade. Replace blade.</p>

BAND SAW BLADES

A band saw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain long use from a band saw blade if you give it proper treatment. Be sure you use blades of the proper thickness, width and temper for the type of material to be cut.

Always use the widest blade possible. Use the narrow blades only for sawing small pieces, abrupt curves and for fine, delicate work. This will save blades and will produce better work. Band saw blades may be purchased welded, set, sharpened and ready for use.

File and set the cutting blade whenever you find it requires pressure to make a cut. If a blade is broken, it can be brazed or welded. However, if it has become work-hardened, it will soon break in another place. If you are not equipped to file, set and braze or weld blades, take them to a saw filer for reconditioning. Under average conditions, blades should be resharpener after 4 hours of operation.

Many conditions may cause a band saw blade to break. Blade breakage is in some cases unavoidable. However, operator error often causes blades to break. The most common causes of blade breakage are: (1) Faulty alignment and adjustment of the guides, (2) Forcing or twisting a wide blade around a short-radius curve, (3) Feeding stock too quickly, (4) Dullness of the teeth or absence of sufficient set, (5) Excessive tightening of the blade, (6) Top guide set too high above the work being cut, (7) Using a blade with a lumpy or improperly finished braze or weld and, (8) Continuous running of the saw blade when not in use for cutting.

New blades for the standard band saw should be 77 1/2" (1968mm) length, 5/8" (16mm) width.

OPERATING THE BAND SAW

Before starting the machine, make sure that all adjustments are properly made and the guards are in place. Turn the pulley by hand to make sure that everything is correct BEFORE turning on the power.

Keep the top guide down close to the work at all times. Do not force the material against the blade too hard. Light contact with the blade will permit easier following of the line and prevent undue friction, heating and work-hardening of the blade at its back edge.

KEEP THE SAW BLADE SHARP and you will find that very little forward pressure is required for average cutting. Moving the stock into the blade at a steady speed will provide an easy cutting movement.

Avoid twisting the blade by trying to turn sharp corners.

Remember you must saw around corners.

CUTTING CURVES

When cutting curves turn the stock carefully so that the blade can follow without being twisted. If a curve is so abrupt that it necessary to repeatedly back up and cut a new kerf, either a narrow blade or a blade with more set is required. The more set a blade has, the easier it will allow the stock to be turned. However, the cut is usually rougher than a blade with a medium amount of set. In order to change the cut, the operator must be careful that he does not accidentally draw the blade off the wheels. In most cases it is easier and safer to turn the stock and saw with a series of cuts to protect the blade.

HOW TO ORDER

REPLACEMENT PARTS

Even this high quality power tool may need occasional replacement parts to maintain good working condition over the years. To order replacement parts, contact or write Northern Tool + Equipment Co.

Please give the following information:

1. Model No. and Serial No. and specifications on the Model No./Serial No. plate.
2. The number or numbers as shown in the replacement parts list supplied with your power tool.
3. A brief description of the trouble with the power tool.

SAW BLADE GUARD COVER

Guard cover(Fig.1B) can be moved up and down depending on the thickness of the meat. Using the knob(Fig. A) to adjust the sawing space. Pull down the cover when sawing thin meat. Pull up the cover when sawing thick meat. It will prevent hands from being injured.

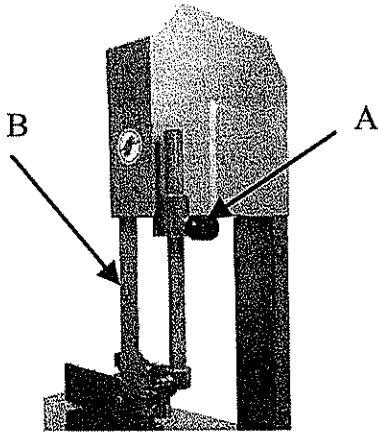


Figure 1

REMOVING THE GUARD COVER

1. Loosen the screw on the front cover. (Fig. 2C)
2. Loosen the four screws on the two sides of girder. (Fig. 2D) Remove the cover(Fig. 2F).
3. Loosen the two screws on rear cover. (Fig. 3E)
4. Remove the guard cover. (Fig. 3G)

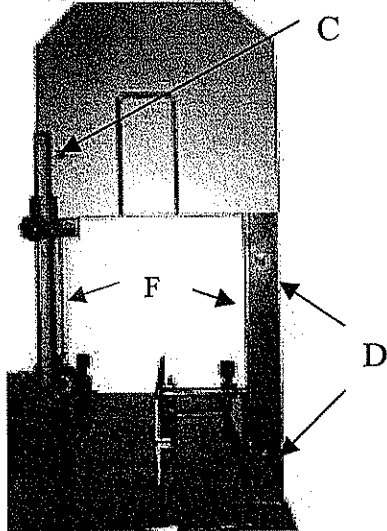


Figure 2

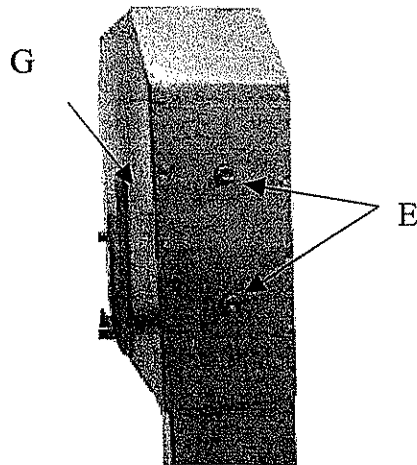


Figure 3

REPLACING OR ADJUSTING THE SAW BLADE

Loosen the nut as shown in Fig 4A, then replace or adjust the saw blade.

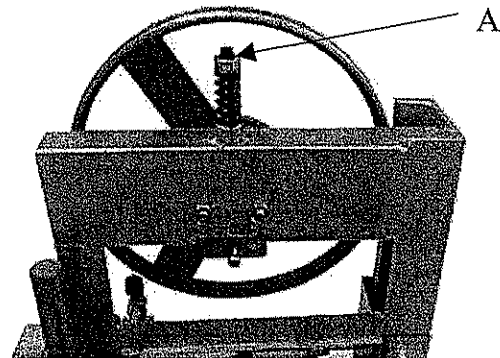


Figure 4

WORKING TABLE

To remove the table:

1. Loosen the 4 screws on the table side. (Fig. 5A)
2. Take away the fix plate. (Fig. 6B)
3. Slide the table and take it off. (Fig. 6C)

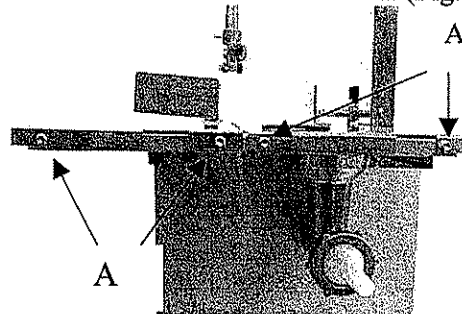


Figure 5

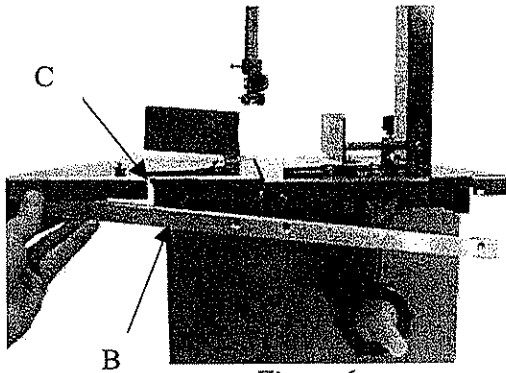


Figure 6

PUSH BUTTON

Push the red button(Fig.7A), open the door to clean, inspect, or maintain after the use of meat saw/grinder.

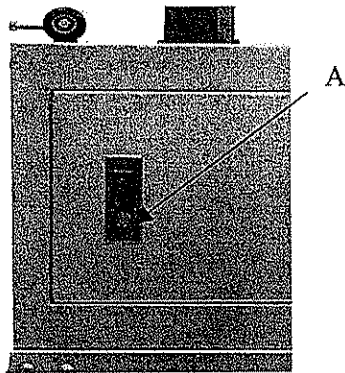


Figure 7

BLADE CENTERING ON WHEEL

1. Loosen the screw. (Fig. 8A)
2. Adjust the two nuts (Fig. 8B) until blade tracks on the wheel center.
3. Fasten the screws. (Fig.8A)

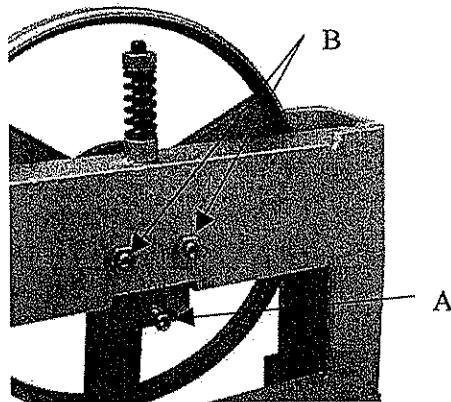


Figure 8

UPPER BLADE FIXED SEAT

After blade is vertically adjusted:

1. Loosen two screws (Fig. 9A) and move the two inserts (Fig. 9B) to make a space to insert the saw blade into the slit of upper blade fixed seat.
2. Tighten the screw(Fig. 9A)

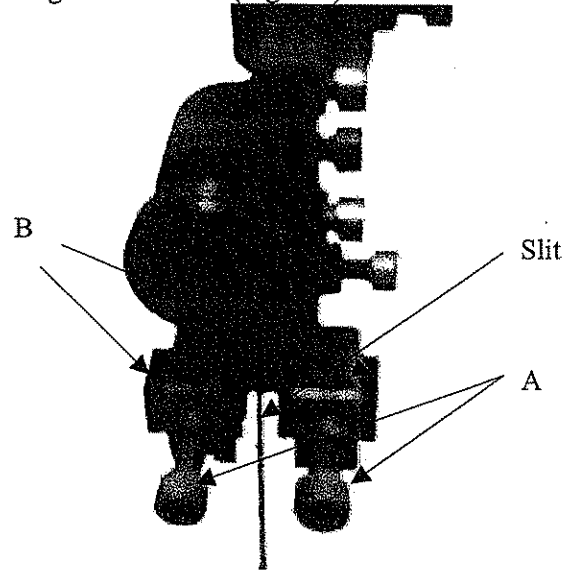


Figure 9

3. Loosen the screw(Fig. 10C) to adjust the bearing position. Please make sure the bearing is as close as possible to the back edge of the blade. The bearing should have a clearance of 1/32" with the blade. Then tighten the screw after adjustment.
4. Loosen the screw(Fig. 10D) to adjust the blade guide. Make sure the blade is in the center of the slit. Re-tighten the screw(Fig. 10D).

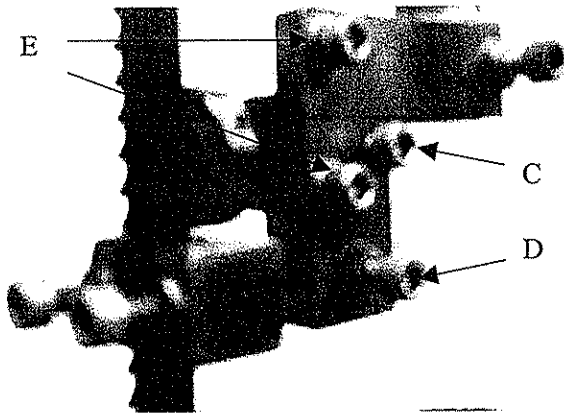


Figure 10

5. After adjustment, fix the blade guard into the bracket by tightening the two screws.(Fig. 10E)

LOWER BLADE FIXED SEAT

After the blade was adjusted vertically:

1. Loosen two screws (Fig. 11A) adjust the two guide plates(Fig. 11B), making a reasonable space to put the blade into the slit.(Fig. 11C)
2. Loosen screw(Fig. 12D) on the bearing.
3. Adjust the bearing position as close as possible to the back edge of the blade.(Fig. 12E)
4. Fasten the screws again.

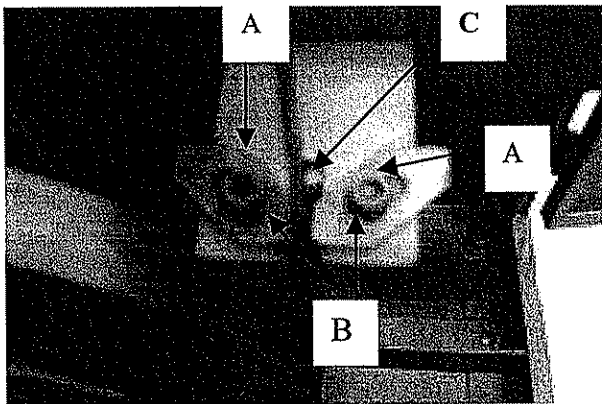


Figure 11

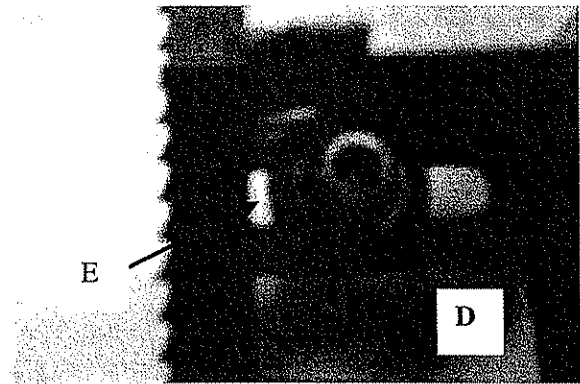


Figure 12

ASSEMBLE THE MEAT GRINDER

- 1 Loosen the handle (Fig. 13A).
- 2 Put the body of the grinder into the seat and tighten the handle.(Fig. 14)

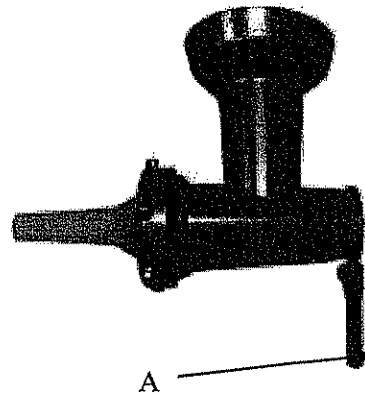


Figure 13

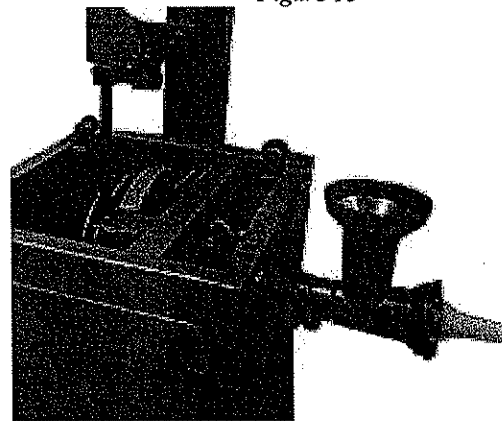


Figure 14

Assemble Machine to Stand

Use the screws(Fig. 15A) to assemble the stand as in Fig. 15. Fix the motor into the stand.

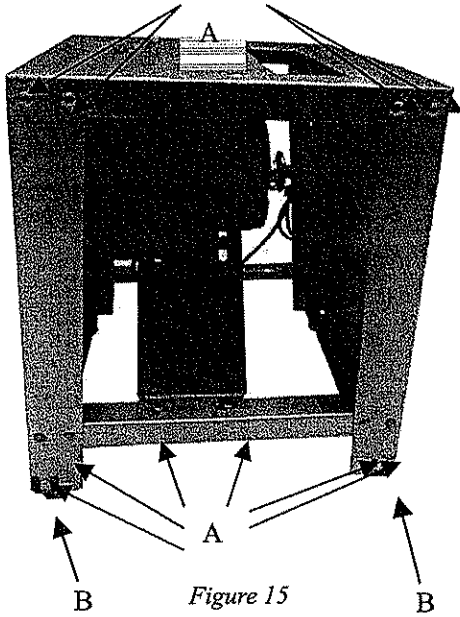


Figure 15

Assemble the four rubber pads (Fig. 16) onto the four corners(Fig. 15B) of the stand in order to reduce the vibration.

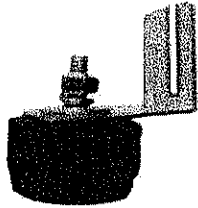


Figure 16

There are three elliptical holes(Fig. 17A) on the top of the stand. Adjust the saw body to fix the stand. Use the long bolts through the three holes to tighten the saw body to the stand.

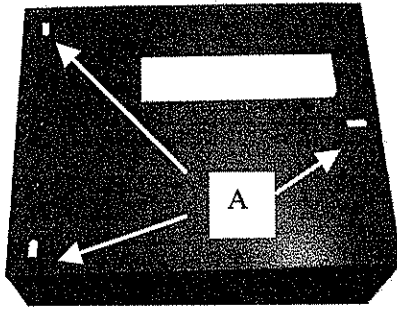


Figure 17

ADJUST V-BELT

(I) Adjusting V-Belt tension.

1. Put the V-Belt into the two pulleys.(Fig. 18B)
2. Loosen the four screws. (Fig. 18A)
3. Adjust the motors to the proper position.
4. Fasten the four screws.

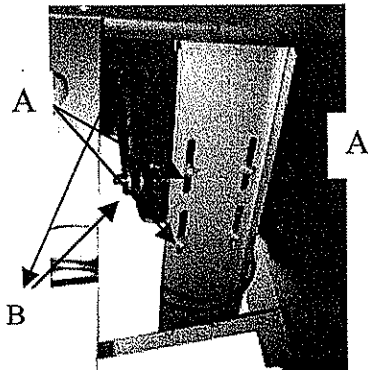


Figure 18

(II) Adjusting V-Belt vertically

In case the V-belt is not vertical, (pulleys not aligned), loosen the two screws(Fig. 19A) to adjust the motor fixed plate. Then fasten them again.

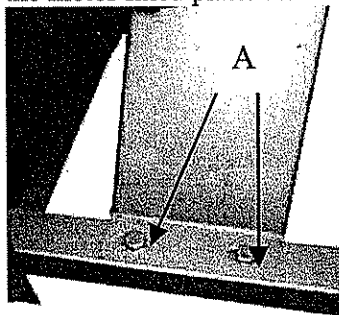


Figure 19

After adjusting, assemble the protection fences (Fig. 20A) on the stand.

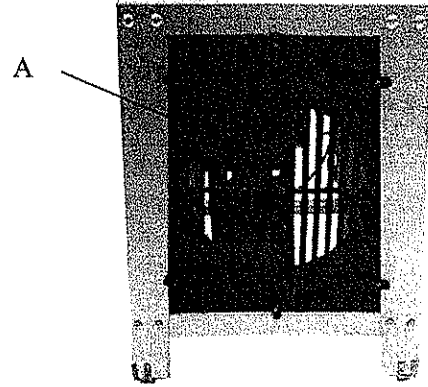


Figure 20

START SWITCH

The start switch is located on the upper side of the steel stand (Fig. 21).

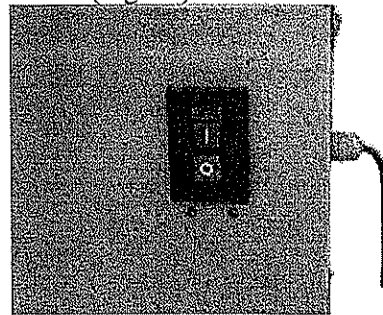


Figure 21

ASSEMBLING THE SWITCH

Fig. 22A shows the ground wires fixed to the stand by two screws(Fig. 22B). Fig. 22C shows the power source wires. Fig. 22D shows the motor power wire.

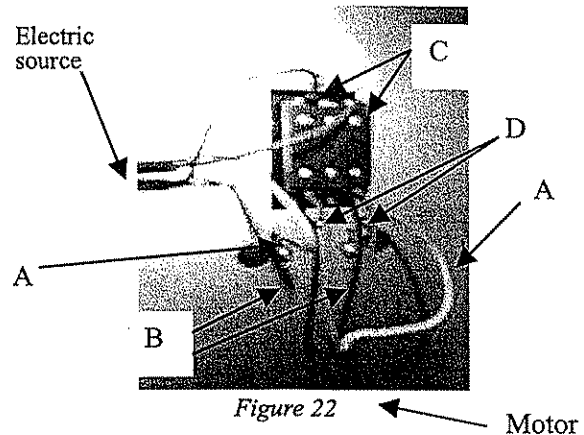


Figure 22

After connecting the wires to the switch, affix the switch box over the switch with two screws (Fig. 23D).

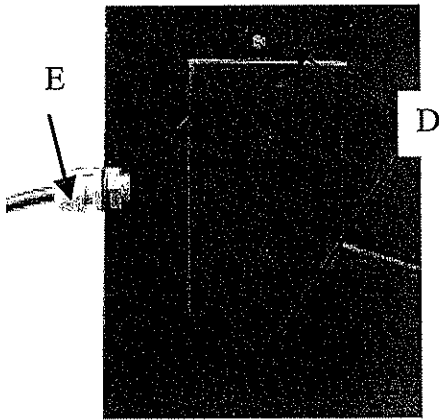


Figure 23

After securing the switch box, please fasten the cable clamp by turning the cap. (Fig. 23E)

ASSEMBLY OF GUIDE WHEELS AND TABLE

1. Use the hex-screws(Fig. 24A) to fix the four guide wheels(Fig. 24C).
2. Loose the bolt(Fig. 24B) to adjust the wheel position.

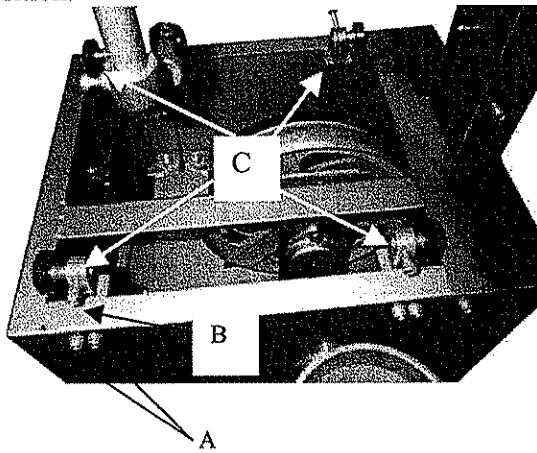


Figure 24

3. Loosen the four screws(Fig. 25D) to move the fix plate.(Fig. 26E)

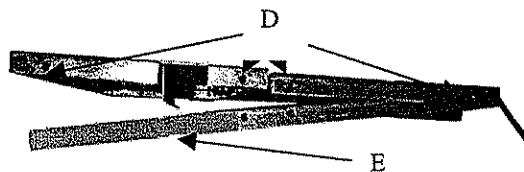


Figure 25

4. Under the working table, there are two rails(Fig. 26F). Along the rails slide the table, making the rail move on the four guide wheels.

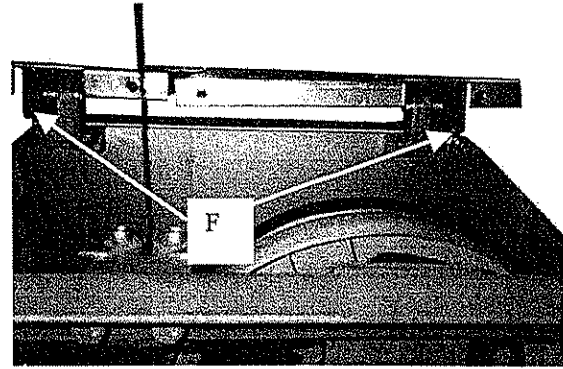


Figure 26

5. Use the four screws to assemble the fix plate into the table (Fig. 5A).

ASSEMBLY OF FENCE AND PUSHER

Use Fig. 27 & Fig. 28 as reference pictures to mount the two brackets onto the working table with screws (Fig. 27A).

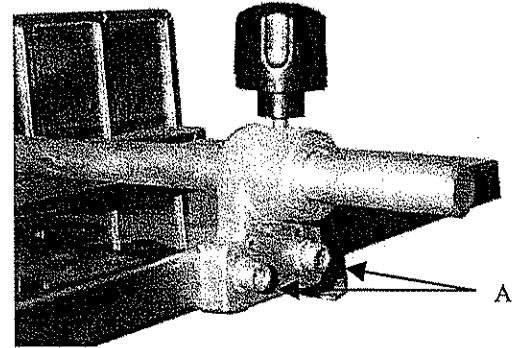


Figure 27

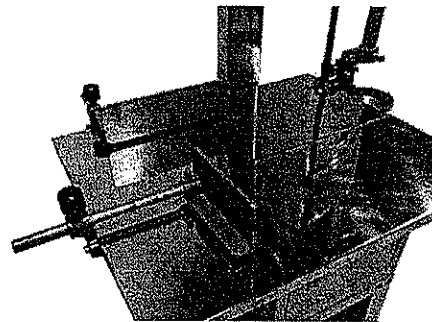


Figure 28

DISASSEMBLY OF MEAT GRINDER

Figure 29 shows the meat grinder.

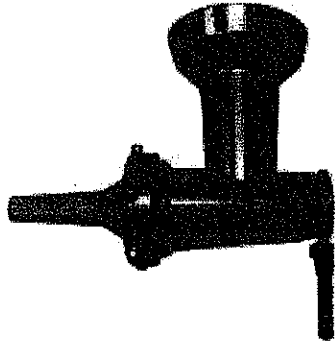


Figure 29

Figure 30 shows the parts of the meat grinder.

- | | |
|----------------------|--------------------|
| 1. Clamp handle | 2. Charging hopper |
| 3. Plastic seal tube | 4. Shaft |
| 5. Bolt | 6. Reamer |
| 7. Filter cover | 8. Seal ring |
| 9. Lock cover | 10. Funnel |

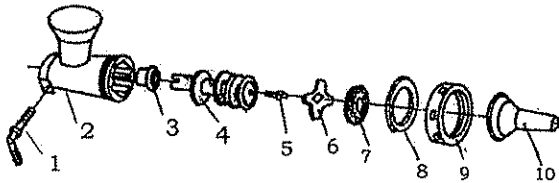
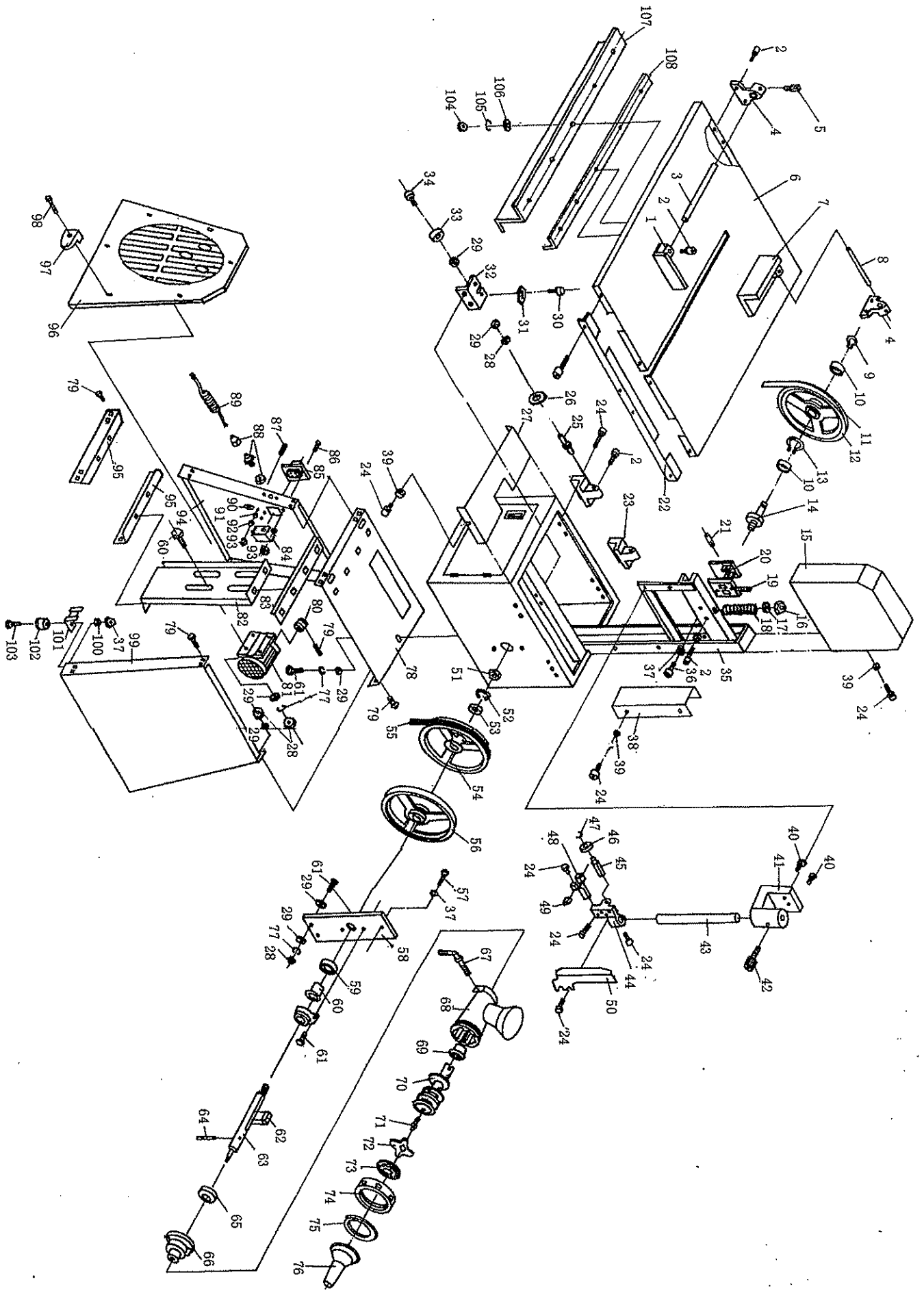


Figure 30

Maintenance & Daily Cleaning

Clean the blade, table and mincer with water after using the machine. Open the guard cover for cleaning if necessary. Use vegetable oil on those parts that will easily become rusty in order to avoid rust and corrosion. Keep the machine clean at all times and pay attention to the working environment to avoid accidents.

Thank you very much for using our products.



PART LIST

No.	Description	Q'ty	No.	Description	Q'ty	No.	Description	Q'ty
1	Fence	1	37	Nut	1	73	Filter cover	1
2	Screw	6	38	Cover	1	74	Lock cover	1
3	Bar	1	39	Washer	10	75	Seal ring	1
4	Fix bracket	2	40	Bolt	4	76	Funnel	1
5	Knob	2	41	Fix bracket	1	77	Spring washer	1
6	Working table	1	42	Knob	1	78	Stand cover	1
7	Fence	1	43	Bar	1	79	Screw	1
8	Bar	1	44	Bracket	1	80	Pulley	1
9	Retaining ring	1	45	Pin	1	81	Motor	1
10	Bearing	2	46	Bearing	3	82	Support plate	1
11	Saw blade	1	47	Retaining ring	1	83	Beam	1
12	Wheel	1	48	Guide bracket	1	84	Switch box	1
13	Retaining ring	1	49	Guide insert	2	85	Switch	1
14	Bearing	1	50	Guard	1	86	Screw	1
15	Cover	1	51	Nut	1	87	Screw	1
16	Nut	1	52	Spring washer	1	88	Strain & relief	1
17	Flat washer	1	53	Flat washer	1	89	Cable	1
18	Spring	1	54	Belt wheel	1	90	Earth label	2
19	Elavating plate	1	5	V-belt	1	91	Star washer	2
20	Adjusting plate	1	56	Transfer wheel	1	92	Washer	4
21	Connecting pin	1	57	Bolt	1	93	Nut	4
22	Stand plate	1	58	Plate	1	94	Left stand	1
23	Wheel bracket	4	59	Bearing	1	95	Beam	1
24	Screws	18	60	Bush	1	96	Protecting plate	1
25	Axle	4	61	Bolt	12	97	Plastic pin	12
26	Wheel	4	62	Key	1	98	Screw	12
27	Cover	1	63	Shaft	1	99	Right stand	1
28	Nut	31	64	Pin	1	100	Washer	4
29	Washer	44	65	Bearing	1	101	Insert plate	4
30	Screw	2	66	Bracket	1	102	Shock absorb pad	4
31	Position plate	2	67	Clamp handle	1	103	Bolt	4
32	Position bracket	1	68	Charging hopper	1	104	Nut	20
33	Bearing	1	69	Plastic seal tube	1	105	Spring washer	20
34	Screw	1	70	Shaft	1	106	Flat washer	20
35	Main body	1	71	Bolt	1	107	Sliding slot	2
36	Screw	1	72	Reamer	1	108	Support plate	2

WARNING!

Some dust created by power sanding, sawing, grinding, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica, from bricks, cement, and other masonry products
- Arsenic and chromium, from chemically treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and use approved personal protective equipment, such as those dust masks that are specially designed to filter out microscopic particles.



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