

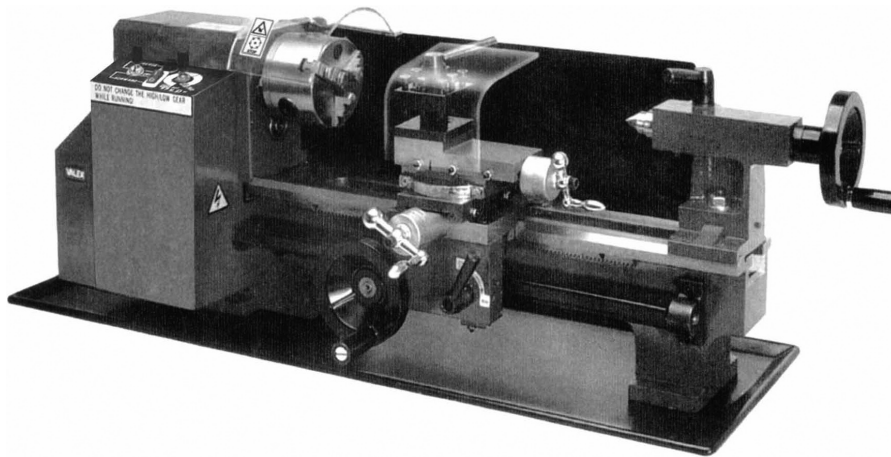
CENTRAL MACHINERY

®

7" X 12" MINI LATHE

Model 93799

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at: <http://www.harborfreight.com>

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For technical questions, please call 1-800-444-3353.

PRODUCT SPECIFICATIONS

Motor	3/4 Horsepower
Power Source	110V~, 60 Hz, Single Phase
Drive	Gear and Belt
Swing Over Bed	7"
Distance Between Centers	12"
Spindle Bore	3/4"
Quill Travel	2"
Cross Slide Travel	2-3/4"
Cross Slide Swing	4-1/2"
Work Tolerance	.005"
Bed Dimensions	19-7/8"L x 3-1/4" W
Saddle Travel	6-7/8"
Compound Travel	2-7/8"
Speed Ranges	0-1100 (low); 0-2500 (high)
Chuck Dimensions	80 mm; 3-jaw



SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep manual and invoice in a safe place for future reference.

GENERAL SAFETY RULES

 **WARNING!**

READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in
electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

ELECTRICAL SAFETY

5. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
12. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A

wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
15. **Use safety equipment. Always wear eye protection.** Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE



16. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
17. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
18. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
20. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
21. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.
22. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
23. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

24. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.**

Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Mini Lathe.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **Always wear ANSI-approved safety impact eye protection, full face shield and heavy work gloves when using the Mini Lathe.** Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
3. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
4. **Always keep the extension cord away from moving parts on the tool.**
5. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Mini Lathe.
6. **Never leave the Mini Lathe unattended when it is plugged into an electrical outlet.** Turn off the tool, and unplug it from its electrical outlet before leaving.
7. **Always unplug the Mini Lathe from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
8.  **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks and cement or 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 work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.
(California Health & Safety Code § 25249.5, *et seq.*)
9.  **WARNING!** People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.

GROUNDING

WARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See Figure A.)**
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See Figure A.)**

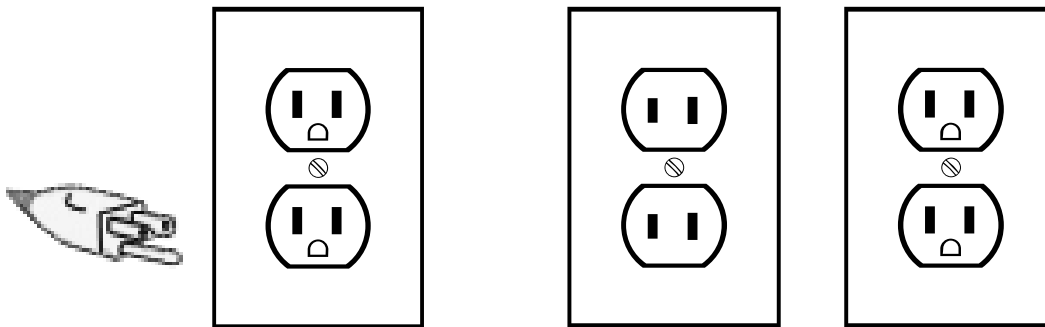


FIGURE A

FIGURE B

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Figure B.)**

5. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. **(See Figure B.)**




EXTENSION CORDS

1. ***Grounded*** tools require a three wire extension cord. ***Double Insulated*** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Figure C, next page.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Figure C.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Figure C.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Figure C.)**
6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120 OR 240 VOLT)					
NAMEPLATE AMPERES (At Full Load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

FIGURE C * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V~	Volts Alternating Current
A	Amperes
n ₀ xxxx/min.	No Load Revolutions per Minute (RPM)

Unpacking

Carefully unpack the Mini Lathe and check all items. Figure 1 below shows all the contents of the carton. Do not discard any packing material until the Mini Lathe is fully assembled and operational. If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353. Be sure you have all parts described in the parts listing at the back of the manual.

Identification of Main Components

- | | | |
|----------|---------------------|------------------|
| A. Lathe | B. Chuck Key | C. External Jaws |
| D. Chuck | E. Chuck Set Screws | F. Internal Jaws |

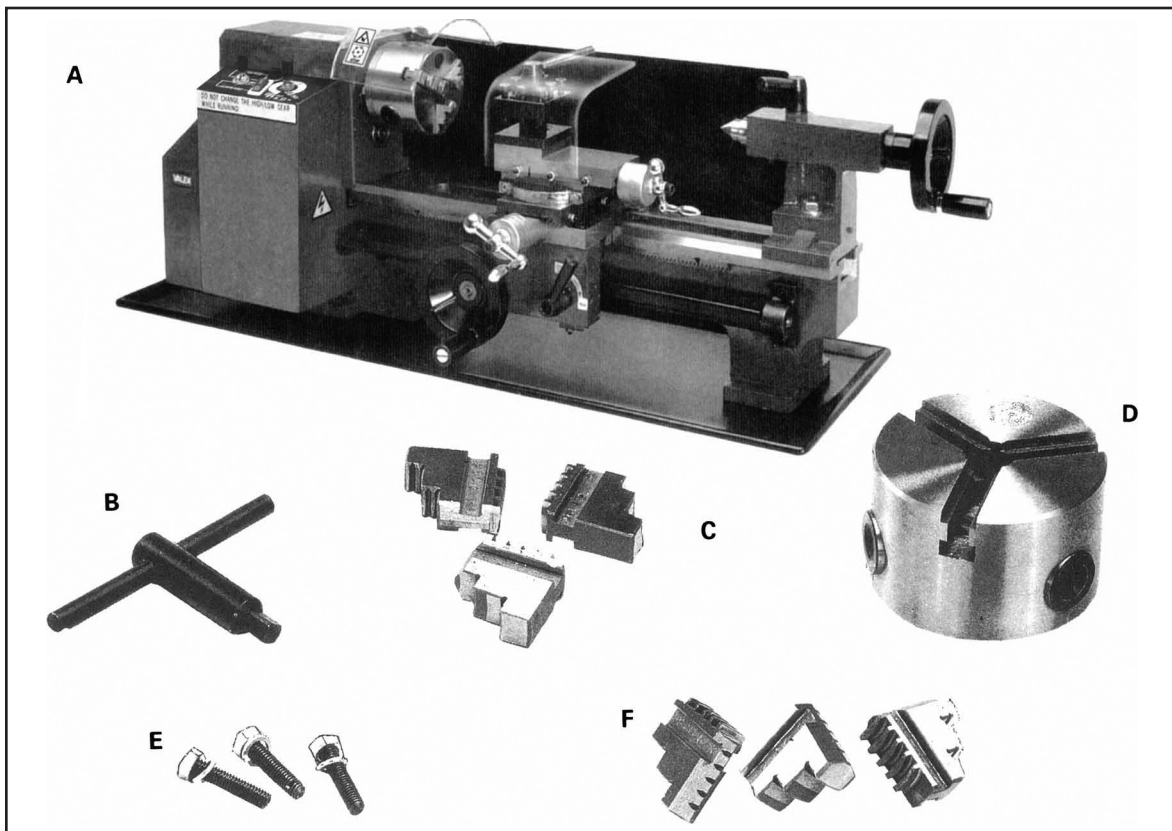
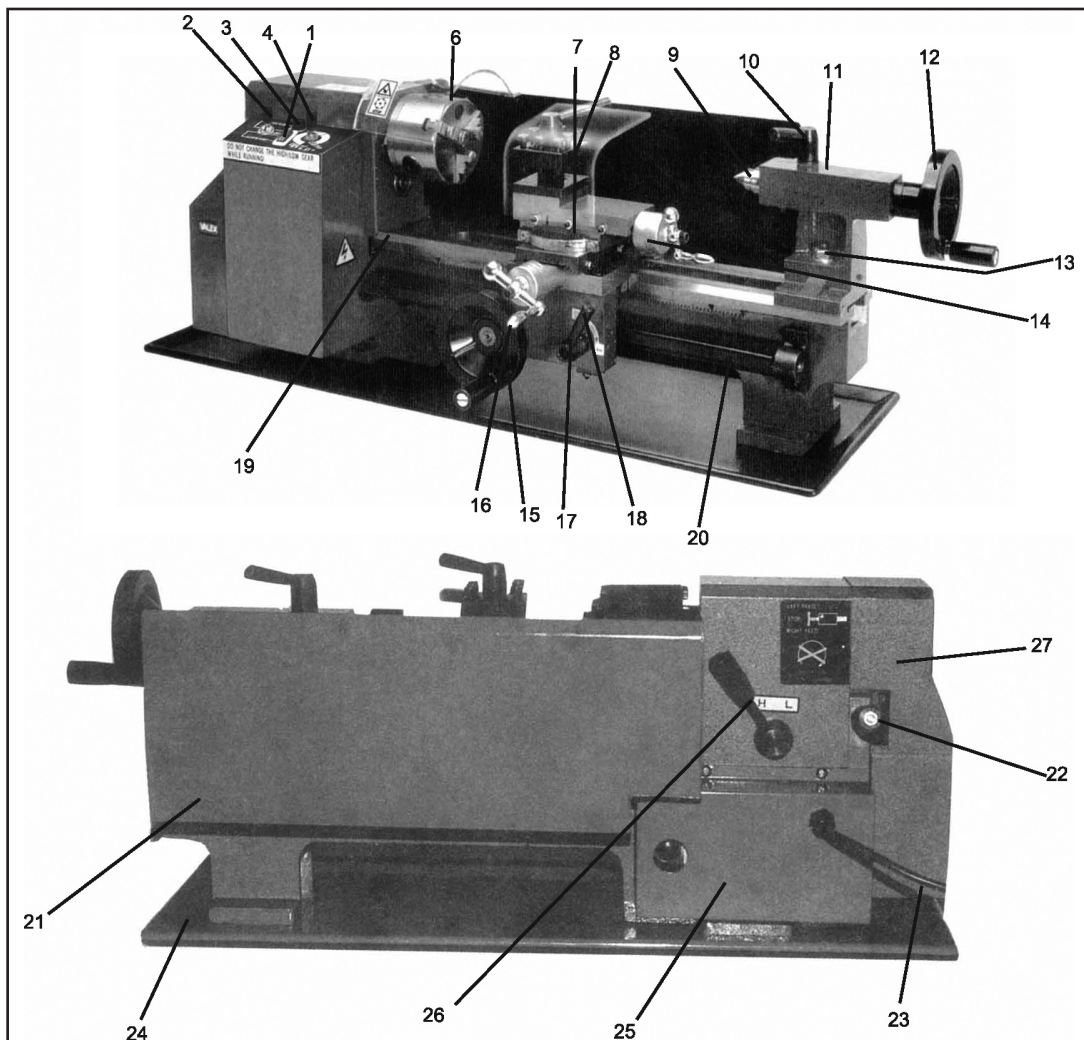


Fig 1

Mini Lathe Features

1. Power Switch
2. Power lamp
3. Fuse
4. Speed Control Knob
5. Chuck
6. Compound Rest
7. Tool Post
8. Fixed Center
9. Tailstock Quill Fix Holder
10. Tailstock
11. Tailstock Quill Adjust Handwheel
12. Tailstock Set Screw
13. Compound Rest Crank
14. Feeding Control Wheel
15. Cross Feeding Crank
16. Automatic Feeding Handle
17. Thread Dial Indicator
18. Bed Way
19. Lead Screw
20. Rear Splash Guard
21. Feeding Direction Selector
22. Power Cord
23. Chip Tray
24. Motor Cover
25. H/L Gearshift Lever
26. End Cover



Adjusting the Mini Lathe

1. Clean off the protective grease on the Mini Lathe.
2. Check to see that the three set screws on the chuck are tight.
3. Turn the chuck by hand and check that it rotates freely.
4. Move the Feeding Direction Selector (located on the back of lathe) to the middle.
5. Make sure the Switch (#1 in figure 4 below) is at the OFF position.

WARNING: ADJUST THE SPEED CONTROL KNOB (#4) BY TURNING IT TO ZERO. BEFORE TURNING ON THE MINI LATHE EACH TIME IT IS TO BE USED, THIS SPEED CONTROL KNOB MUST BE AT ZERO.

6. Plug in the electrical cord and turn the Switch to the ON position and run the lathe for 3 minutes. When the lathe is on, the Power Lamp (#2) will remain on. Check to see that the lathe operates normally.
7. Check the Compound Rest Crank and the Cross Feeding Crank to see that they work properly. If the cranks are too tight or too loose, turn the adjusting screws located at both sides (see figure 5 below).

WARNING: THE MINI LATHE MUST BE COMPLETELY STOPPED BEFORE CHANGING FORWARD/REVERSE DIRECTION.

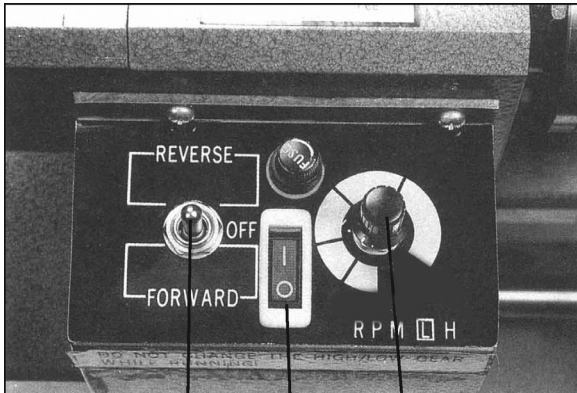


Fig 4

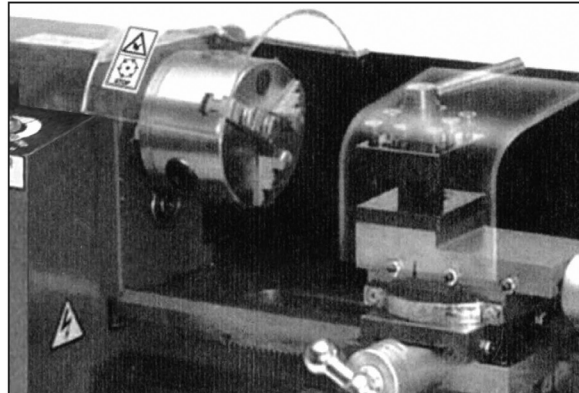


Fig 5

Replacement of Chuck

When replacing the chuck, place a cloth or a piece of wood on the bedway at the bottom of the chuck. This step will help avoid damage to the bedway caused by carelessly dropping the chuck. To replace the chuck, loosen the 3 set screws as shown below.



Fig. 6

Replacement of Jaws

There are two types of jaws: the internal jaws and external jaws. Please note that the number of jaws fit with the number inside the chuck's groove. Do not mix them together.

When you are going to mount the jaws, mount them in ascending order. When they are taken out, make sure to take them out in descending order (3-2-1) one by one. After you finish this procedure, rotate the jaws to the smallest diameter and check that the three jaws are well fitted (see figure 7).

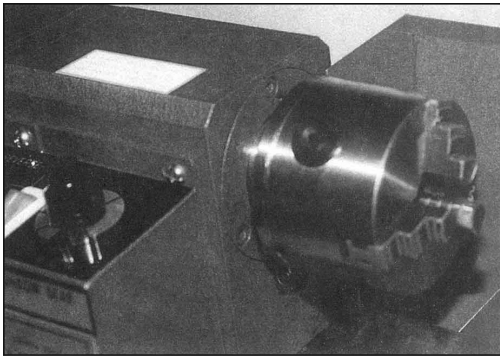


Fig. 7

If the jaws do not fit well together, you will need to reassemble them again.

When mounting a workpiece, it is recommended that all three jaws are loosened at the same time. This will protect the threads inside.

Compound Rest Adjustment

To adjust the compound rest, loosen the two screws as shown in figure 8 (A). After adjusting to the required angle, tighten the screws.

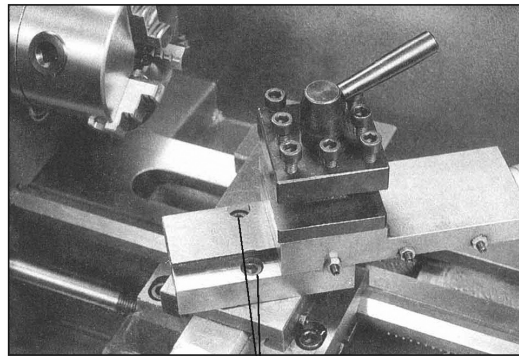


Fig. 8

Tailstock Rest Adjustment

To change position or replace the tailstock, loosen the nut as shown in (A) of figure 9.

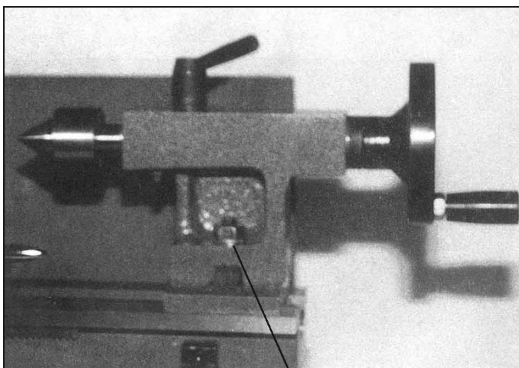


Fig. 9

Replacement of Carbon Brushes

To replace, remove brush covers on the motor cover (A) in figure 10-A, and the right bottom side of speed controller as shown in (B) of figure 10-B.

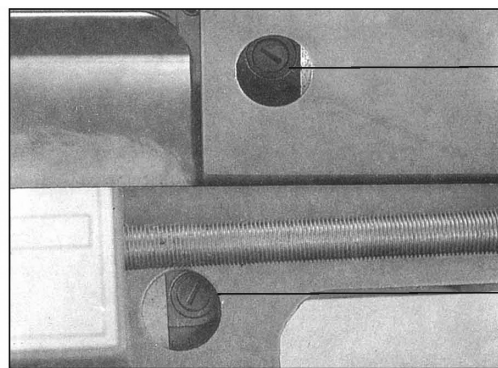


Fig. 10-A
Fig. 10-B

Tool Post Adjustment

Loosen the lever shown in (B) of figure 11, the adjust the tool post position. Once the adjustment is made, re-tighten the lever. To replace the work cutter, loosen the screws (A) with the hex key wrench provided.

Automatic Feeding

Adjust the feeding direction selector to the direction you desire. Press down the handle (A) in figure 12, and continue with the automatic feeding procedure. When feeding, never try to change the feeding direction.

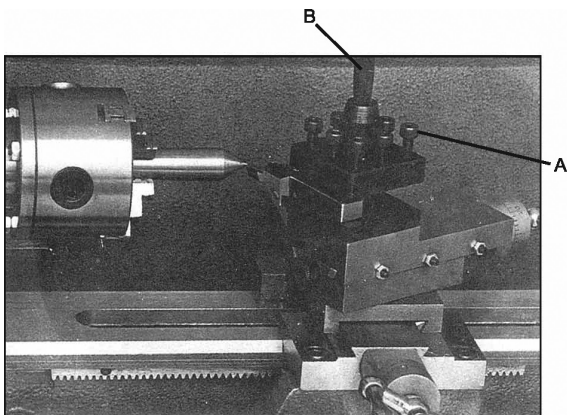


Fig. 11

Threading

Select the feeding direction selector to the thread direction desired. Then press down handle (A) in figure 12 by matching the right calibrations on the thread dial indicator (B) and continue with the automatic threading procedure. When threading, never try to change the direction.

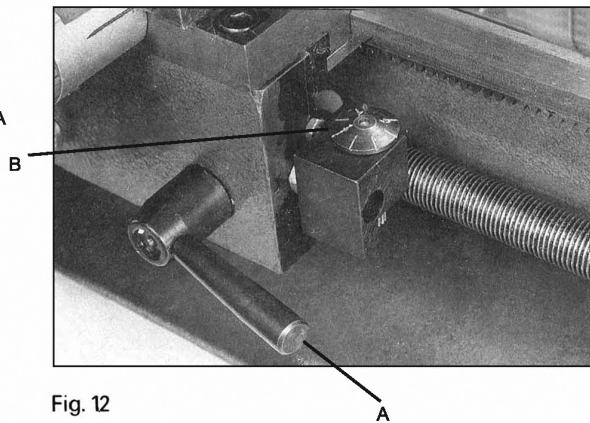


Fig. 12

OPERATION

1. Use the chuck to hold the workpiece firmly (figure 13 below). Then, use the rolling center to fix the other end. If you change the rolling center to drilling chuck you start your drilling immediately.
2. Use the chuck to hold the workpiece firmly and cutter to start lathe's face cutting (figure 14). The edge of the cutter must be at the same height as the center.

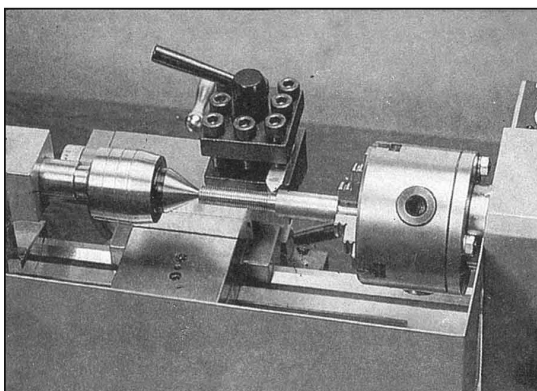


Fig. 13.

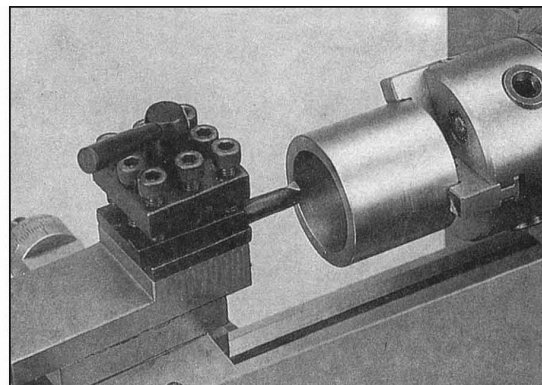


Fig. 14

3. By changing the tool post angle and adjusting the compound rest, you can do internal cutting (figure 15).
4. After adjusting the angle of the compound rest, you can do bevel cutting (figure 16).

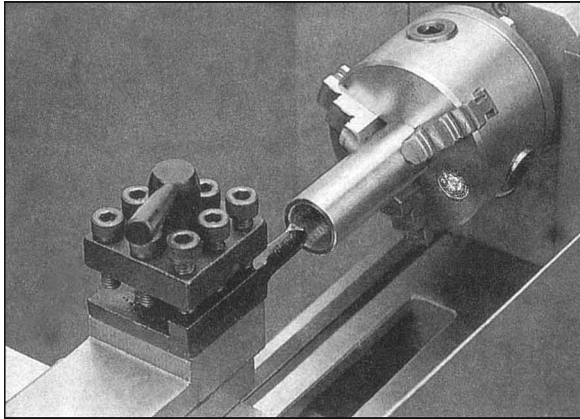


Fig 15

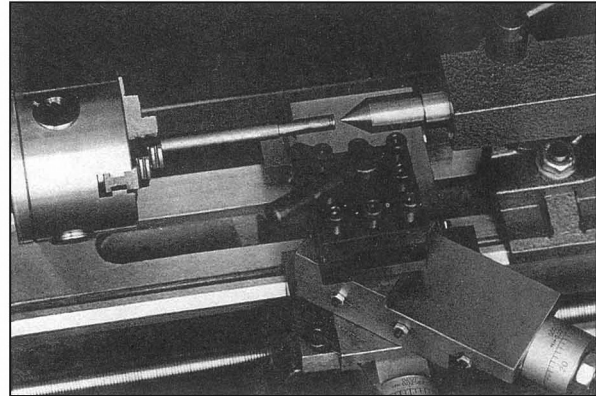
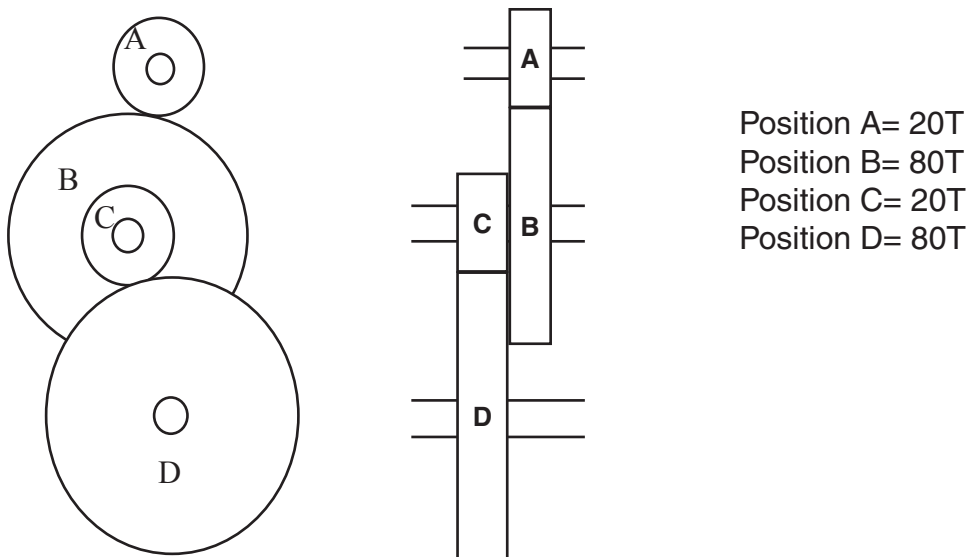


Fig 16

Setup Instructions for Threading Gears

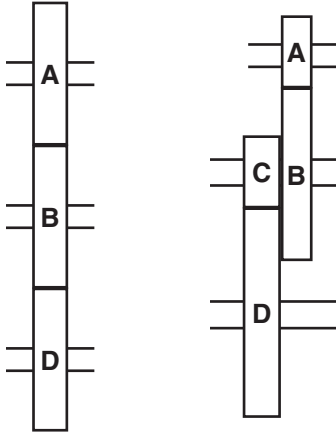
By changing the gear set-up it is possible to cut any thread size. The factory set-up for Mini Lathe gears is as follows (see illustration below):



To change the thread size, use the gear box settings shown on the table on the next page.

Threading Chart

CHANGE GEAR BOX

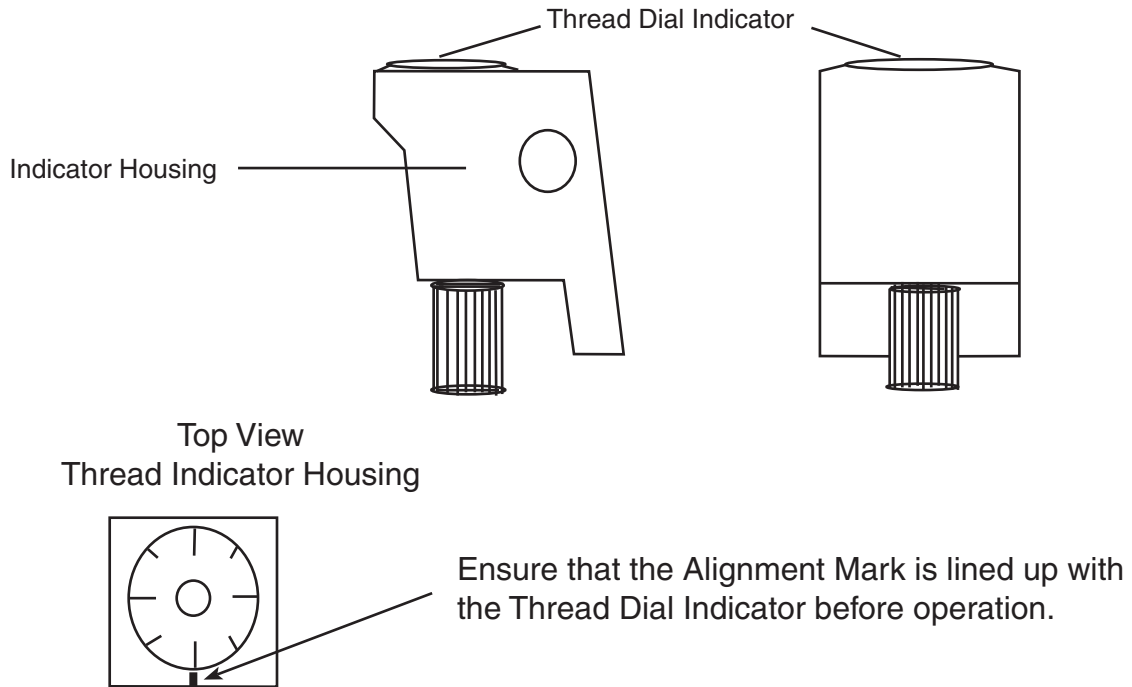


Thread Per Inch	Change Gear Box			
	A	B	C	D
12	40	65	/	30
13	40	65	60	30
14	40	65	/	35
16	40	65	/	40
18	40	65	/	45
19	40	50	60	57
20	40	65	/	50
22	40	65	/	55
24	40	65	/	60

Thread Per Inch	Change Gear Box			
	A	B	C	D
26	40	60	/	65
28	20	65	/	35
32	20	65	/	40
36	20	65	/	45
38	20	60	60	57
40	20	65	/	50
44	20	65	/	55
48	20	65	/	60
52	20	60	/	65

Additional Setup Instructions for Threading Gears

When the lathe is ON and the Spindle is revolving, the threaded bar and the Thread Dial Indicator will also be revolving (see below).



Move the cutting blade to the proper position, and adjust the Thread Dial Indicator to the desired mark. Pull down the Handle and the Mini Lathe starts threading automatically.

Remember: After thread cutting operation is complete, change back to the factory set-up gear setting:

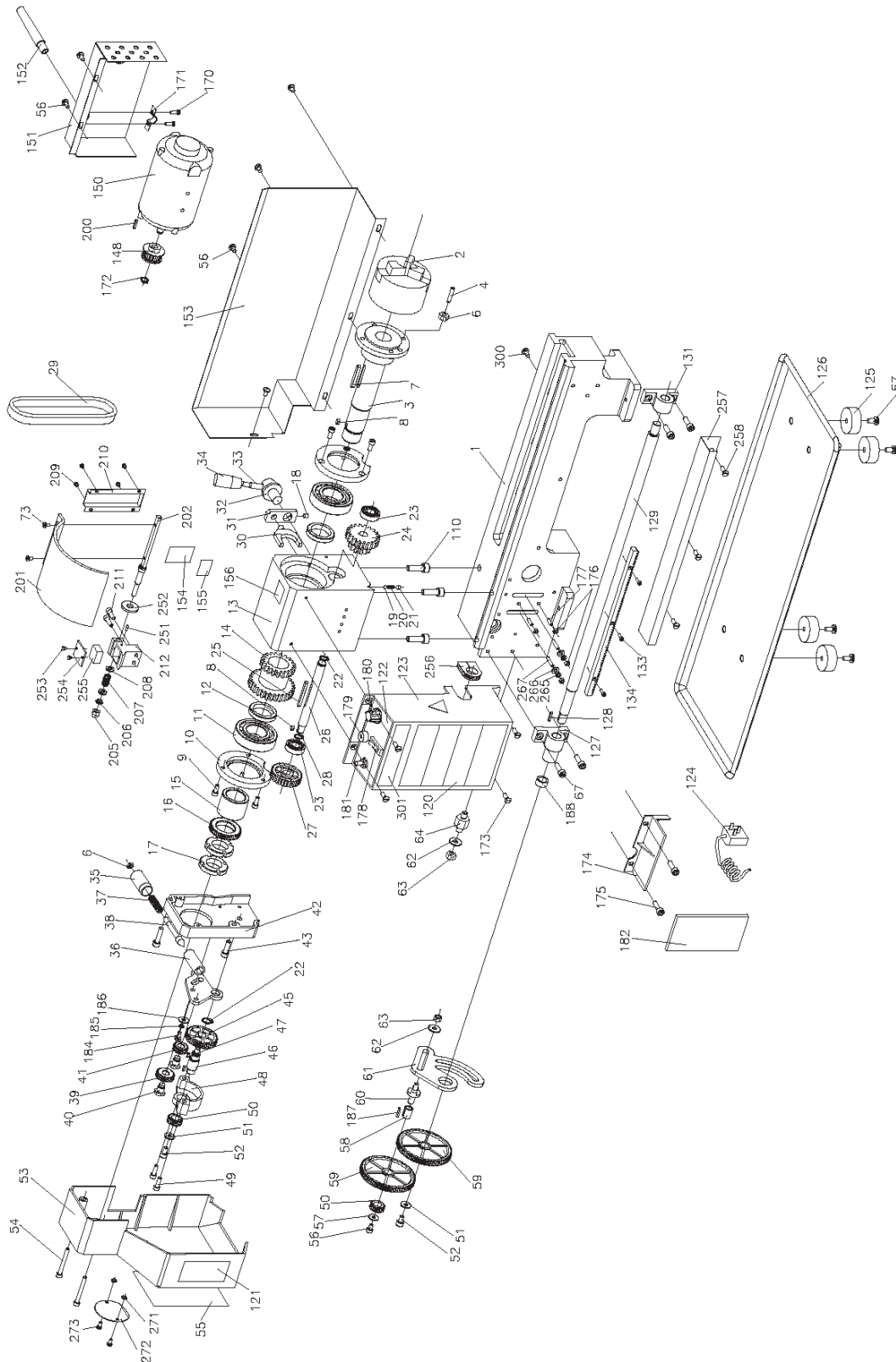
Position A= 20T

Position B= 80T

Position C= 20T

Position D= 80T

Assembly Diagram and Parts List



Assembly Diagram and Parts List



Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Bed way	1	42	Fixed cover	1
2	3 jaw chuck	1	43	Screw M6x20	2
3	Spindle	1	45	Gear 45T	1
4	Screw M6x25	3	46	Shaft	1
6	Nut M6	5	47	Parallel key 3x8	1
7	Key 5x40	1	48	Mount	1
8	Key 4x8	2	49	Screw M5x18	2
9	Screw M5x12	6	50	Gearwheel 20T	2
10	Cover	2	51	Washer M6	6
11	Ball bearing 80206	2	52	Screw M6x8	2
12	Spacer	2	53	Cover	1
13	Headstock casting	1	54	Screw M5x45	2
14	H/L gear 21T/29T	1	55	thread cutting chart	1
15	Spacer	1	56	Screw M5x8	12
16	Spur gear 45T	1	57	Washer M4	2
17	Nut M27x1.5	2	58	bush w/key	1
18	Set screw M5x8	1	59	Gearwheel 80T	2
19	Steel ball 5	2	60	Shaft	1
20	Comperssion spring	3	61	Support plate	1
21	Set screw M6x8	3	62	Washer 8	3
22	Retaining ring 12	2	63	Nut M8	3
23	Ball bearing 6201Z	2	64	Shaft	1
24	H/L gear 12T/20T	1	65	Dial label	1
25	Parallel key 4x45	1	66	Set screw	1
26	H/L gear shaft	1	67	Screw M6x16	10
27	Pulley	1	68	Dial indicator body	1
28	Retaining ring 10	2	69	Set screw M4x10	3
29	Timing belt L136	1	70	Apron	1
30	Shifting fork	1	71	Gib strip	1
31	Shifting arm	1	72	Washer	2
32	Shifting knob	1	73	Screw M4x8	2
33	Shifting lever	1	74	Shaft	1
34	Shifting grip	1	75	Half nut base	1
35	Handle	1	76	Angle block	1
36	Handle mount	1	77	Screw M4x10	2
37	Spring	1	78	Groove cam	1
38	Indicator	1	79	Handle	1
39	Pinion 25T	1	80	Shaft	1
40	Support screw	2	81	Feeding gear 11T/54T	1
41	Pinion 20T	1	82	Feeding gear 24T	1

Part No.	Description	Q'ty	Part No.	Description	Q'ty
83	Screw M6x10	4	126	Chip tray	1
84	Wheel	2	127	Bracket	1
85	Knob	2	128	Key M3x16	1
86A	Handle big	1	129	Lead screw	1
86B	Handle small	1	131	Bracket	1
87	Dial	2	133	Screw M3x10	3
88	Bracket	1	134	Rack	1
89	Feeding screw	1	135	Clamp plate	1
90	Nut M5	4	136	Washer M10	1
91	Screw M6x12	6	137	Screw M5x16	1
92	Slide plate	2	138	Tailstock casting	1
93	Saddle	1	139	Tailstock screw	1
94	Gib strip	1	140	Bracket	1
95	Feeding nut imperial	1	141	Screw M4x10	2
96	Swivel disk	1	142	Tailstock quill	1
97	Screw M8x20	6	143	Center	1
98	Nut M4	6	144	Stud M8x40	1
99	Screw M4x16	3	145	Clamp	1
100	Cross slide	1	146	Handle	1
101	Screw M5x10	2	148	Pulley	1
102	Screw M4 x 8		150	Motor	1
105	Compound rest(B)	1	151	Cover	1
106	Screw M4x14	3	152	Cable gland	1
107	Gib strip	1	153	Rear splash guard	1
108	Compound rest(A)	1	154	F/N/R ladel	1
109	Position pin	1	155	High-low label	1
110	Screw M6x25	8	156	top warning label	1
111	Clamping lever	1	157*	Gearwheel 30T	1
112	Tool rest	1	158*	Gearwheel 35T	1
113	Stud M10x65	1	159*	Gearwheel 40T	2
114	Cross feed screw	1	160*	Gearwheel 45T	1
115	Bracket	1	161*	Gearwheel 50T	1
116	Screw M4x12	2	162*	Gearwheel 55T	1
119	Nut M18	2	163*	Gearwheel 57T	1
120	Model lable	1	164*	Gearwheel 60T	1
121	Dial indicator label		165*	Gearwheel 65T	1
122	Switch label	1	166*	External jaws(set)	1
123	Control box	1	167*	3-jaw chuck key	1
124	Plug w/cord	1	170	Screw M4x8	1
125	Rubber foot	4	171	Clamp block	1

*Not shown in the explored drawing

Part No.	Description	Q'ty	Part No.	Description	Q'ty
172	Check ring 8	1	235	Protective cover	1
173	Screw M5x10	4	236	Sloting screw	1
174	Protector	1	237	Compression spring	1
175	Screw M5x10	2	238	Sloting Screw M6x30	1
176	Nut M6	2	239	Small washer 6	1
177	Screw M6x25	2	240	Hexagon nut M6	1
178	Power switch	1	251	Round pin	1
179	Fuse box	1	252	Rotate plate	1
180	Variable speed control knob	1	253	Screw 2.9x4.5	2
181	Forward/off/reverse switch	1	254	Cover	1
182	P.C.board	1	255	Micro switch	1
184	Screw M5x10	1	256	Dustproof sleeve	1
185	Spring washer 5	1	257	Protective cover for leadscrew	1
186	Washer 5	1	258	Screw M5x8	3
187	Key 3*16	1	265	Spring washer 6	2
188	Spacer	1	266	Big washer 6	2
190	Spring	2	267	Screw M6x25	2
191	Washer 8	1	268	Nut M10	1
192	Spring washer	2	269	Screw M5x14	1
193	Screw M8x55	2	270	Leadscrew support	1
194	Screw M4x38	1	271	Nut M4	2
195	Nut M4	1	272	Protective cover	1
196	Tailstock plate	1	273	Screw M4x6	2
197	Screw M5x16	1	300	Screw	1
198	Flange	1	301	Label	1
199	Screw M5x25	1	302	Label	1
200	Key 3x12	1	303	Plate	1
201	Chuck protect cover	1	304	Screw M6x12	1
202	Hinge	1	310*	Oil can	1
205	Spring washer 6	1	311*	L hex wrench set S: 3,4,5,6	1
206	Big washer 6	1	312*	Double end wrench 8-10	1
207	Spring	1	313*	Double end wrench 14-17	1
208	Washer 6	1	314*	Fuse	1
209	Screw M3x4	4	315*	Package box	1
210	Switch cover	1	316*	Foamed plastics box	1
211	Screw M5x16	2	317*	Instruction Manual	1
212	Fixed cover	1	318*	Carbon brush set	1

*Not shown in the explored drawing

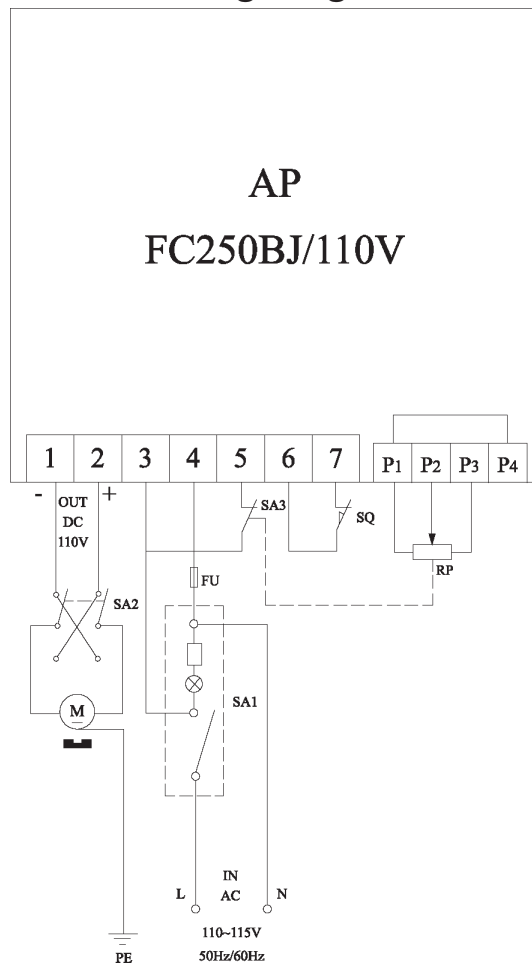
PACKING LIST

No.	Description	Q'ty	Part
1	7" x 12" Mini Lathe	1	
2	Chuck external jaws	3	
3	Chuck Key	1	
4	Fuse 5A	1	
5	Gear Z: 30, 35, 40, 40, 45, 50, 55, 57, 60, 65	10	
6	Double head wrench 8-10, 14-17	2	
7	Inside hex wrench S: 3, 4, 5, 6	4	
8	Oil can	1	
9	Center MT: 2	1	143
10	Rubber	4	125
11	Knob	2	85
12	Instruction Manual	1	

PLEASE READ THE FOLLOWING CAREFULLY

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Wiring Diagram



Warranty

CENTRAL MACHINERY

LIMITED 90 DAY WARRANTY

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