

Save This Manual
For Future Reference

SEARS

**owner's
manual**

**MODEL NO.
113.228360**

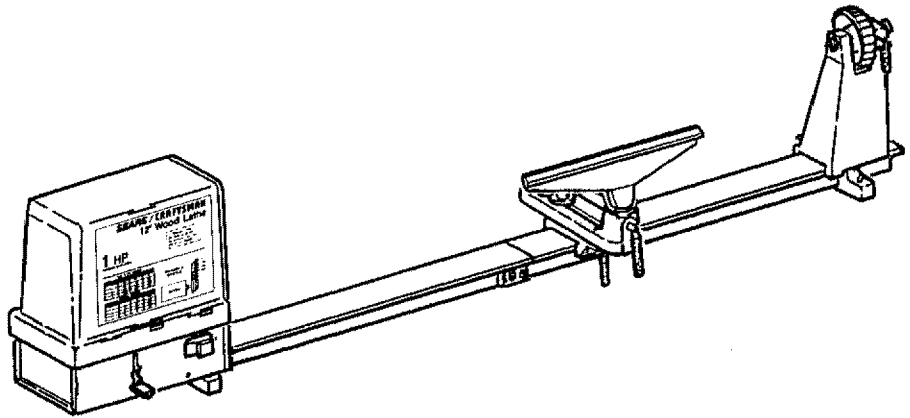
WOOD LATHE

Serial
Number _____

Model and serial number
may be found on back of
headstock assembly.
You should record both
model and serial number in
a safe place for future use.

**FOR YOUR
SAFETY:**

**READ ALL
INSTRUCTIONS
CAREFULLY**



CRAFTSMAN

**12-INCH
WOOD LATHE**

- assembly
- operating
- repair parts

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

Part No. SP5110

Printed in U.S.A. 5/95

FULL ONE YEAR WARRANTY ON CRAFTSMAN WOOD LATHE

If within one year from the date of purchase, this Craftsman Wood Lathe fails due to a defect in material or workmanship, Sears will repair it, free of charge.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT THROUGHOUT THE UNITED STATES.

This warranty applies only while this product is used in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., D/817 WA Hoffman Estates, IL 60179 U.S.A.

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

- 1. KNOW YOUR TOOL**
Read and understand owner's manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards peculiar to this tool.
- 2. GROUND THE TOOL**
This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.
- 3. KEEP GUARDS IN PLACE**
— in working order, and in proper adjustment and alignment.
- 4. REMOVE ADJUSTING KEYS AND WRENCHES**
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 5. KEEP WORK AREA CLEAN**
Cluttered areas and benches invite accidents. Floor must not be slippery due to wax or sawdust.
- 6. AVOID DANGEROUS ENVIRONMENT**
Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lighted. Provide adequate surrounding work space.
- 7. KEEP CHILDREN AWAY**
All visitors should be kept a safe distance from work area.
- 8. MAKE WORKSHOP CHILD-PROOF**
— with padlocks, master switches, or by removing starter keys.
- 9. USE PROPER SPEED**
This tool will do the job better and safer when operated at the proper speed.
- 10. USE RIGHT TOOL**
Don't force tool or attachment to do a job for which it was not designed.
- 11. WEAR PROPER APPAREL**
Do not wear loose clothing, gloves, neckties or jewelry (rings, wristwatches) to get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.
- 12. USE SAFETY GOGGLES (Head Protection)**
Wear safety goggles (must comply with ANSI Z87.1) at all times. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses. Also, use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.
- 13. SECURE WORKPIECE**
Mount workpiece securely between centers.
- 14. DON'T OVERREACH**
Keep proper footing and balance at all times.
- 15. MAINTAIN TOOLS WITH CARE**
Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 16. DISCONNECT TOOLS**
Before servicing, when changing accessories or attachments.
- 17. AVOID ACCIDENTAL STARTING**
Make sure switch is in "OFF" position before plugging in.
- 18. USE RECOMMENDED ACCESSORIES**
Consult the owner's manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.
- 19. NEVER STAND ON TOOL**
Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.
- 20. CHECK DAMAGED PARTS**
Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 21. DIRECTION OF FEED**
Apply cutting tool to the workpiece against the direction of spindle rotation.
- 22. NEVER LEAVE TOOL RUNNING UNATTENDED**
Turn power "OFF". Don't leave Lathe until it comes to a complete stop.

additional safety instructions for wood turning lathes

Safety is a combination of common sense, staying alert and knowing how your lathe works.

BEFORE USING THE LATHE:

WARNING: To avoid mistakes that could result in serious, permanent injury, do not connect power cord until the following steps have been satisfactorily completed:

1. Assembly, mounting and alignment.
2. Learn the function and proper use of the on-off switch, head stock, tail stock, tool rest, spur center, cup center, tail stock ram lock, tool rest locks, index pin, face plate and bed.
3. Read and understand all safety instructions and operating procedures throughout the manual.
4. Read the following labels which appear on the front and side of the lathe:

WARNING
FOR YOUR OWN SAFETY:
 Read and Understand the Owner's Manual before Operating Machine.

- Always wear safety goggles per ANSI Z87.1.
- Do not wear gloves, neckties or loose clothing. Tie back long hair.
- Tighten all locks before turning "on" lathe.
- Turn workpiece by hand to check and see that the workpiece clears the tool rest and other machine parts.
- Rough out faceplate workpieces to make as round as possible before attaching to faceplate.
- Never mount workpieces that are split, checked or have knots.
- Always use lowest speed when starting a new workpiece.

SEARS / CRAFTSMAN®

12" Wood Lathe

1 HP

MAXIMUM DEVELOPED

- Cast Iron Construction
- 37" Between Centers
- Ball Bearing Spindle, Permanently Lubricated
- Belt Drive/4 Speeds

875, 1350, 2250, 3450 R.P.M.

Electrical: 120 volts; 60 Hz AC only; 7.2 amps.

DIAMETER	THICKNESS	ROUGHING	FINISHING
1/2"	1/4" MAX	875	1350
3/4"	3/8" MAX	1350	2250
1"	1/2" MAX	1350	2250
1 1/4"	3/4" MAX	2250	3450

SPINDLE SPEED

SQUARE	LENGTH	ROUGHING	FINISHING
1	18"	1350	2250
2	18"	875	2250
3	24"	875	2250
4	24"	875	2250

WHEN INSTALLING OR MOVING THE LATHE:

1. To avoid injury from unexpected lathe movement:
 - a. Bolt the lathe to a stand or workbench that has a rigid, flat surface for stability.
 - b. Fasten the stand or bench to the floor to prevent slipping, sliding, rocking or tipping during operation.
 - c. Turn off lathe and unplug electrical cord before moving the lathe to a new area.
2. Store and operate lathe indoors.

BEFORE EACH USE:

1. Inspect your lathe. If any parts of this lathe are missing, bent, or fail in any way, or any electrical components do not work properly, turn off the lathe, remove switch key, and remove power supply cord from power supply. Replace damaged, missing or failed parts before using the lathe again.
2. Plan your work to protect your eyes, hands, face, ears and body.
 - a. Turn switch "off" and remove switch key before mounting workpiece in lathe.



- b. WEAR SAFETY GOGGLES, FORESIGHT IS BETTER THAN NO SIGHT. Wear safety goggles, not glasses, that comply with ANSI Z87.1 (shown on package). Operating any power tool can result in foreign objects being thrown into the eyes which can result in permanent eye damage. Safety goggles are available at Sears retail catalog stores. Use of glasses or goggles not in compliance with ANSI Z87.1 could result in severe injury from breakage of the eye protection.

- c. For dusty operation, wear a face shield along with safety goggles.
- d. To avoid being struck by thrown workpieces or tools:

- 1) Before turning lathe on, be positive the lathe is set at the slowest speed for roughing a new workpiece or for turning a remounted workpiece.
- 2) Before turning the lathe on, always rotate the workpiece by hand to make sure it does not strike the tool rest or anything else.

WARNING

THE STARTING RELAY IN THIS HEAD STOCK ASSEMBLY IS A GRAVITY SENSITIVE TYPE. NEVER TURN THE POWER ON UNTIL THE HEAD STOCK ASSEMBLY HAS BEEN MOUNTED ON THE BED AND THE LATHE IS IN UPRIGHT POSITION.

- 3) Make sure centers are aligned when tailstock and ram are locked.
 - 4) Make sure the spur center and cup center are firmly seated against the workpiece and that the tail stock is locked in place for spindle turnings.
 - 5) Always center workpiece and use wood free of checks, splits, cracks or knots. Use lathe to turn wood and wood-like products only.
 - 6) Before mounting workpiece "rough it out" to as "true round" as possible.
 - 7) Always center and fasten the workpiece securely to the face plate for face plate turning.
 - 8) Always position the tool rest above the centerline of the lathe for spindle turning and lock in place.
 - 9) Do not try any operation when hand holding the workpiece or applying the turning tool to the workpiece below the level of the tool rest.
 - 10) Never try to remount a face plate turning to the face plate for any reason.
 - 11) Never try to remount spindle turnings between centers if the original centers in the turning have been altered or removed.
 - 12) Keep firm hold and control of the turning tool and do not let the tool "bite" into the workpiece.
 - 13) Make sure all clamps and locks are tight and there is no sideplay.
 - 14) Never use lathe to cut workpiece into two pieces.
 - 15) Before turning lathe on be sure motor cover is installed and slide closed.
 - 16) Make sure headstock is securely attached to bed.
- e. To avoid being suddenly caught in the lathe:
- 1) Do not wear gloves, neckties or loose clothing.
 - 2) Tie back long hair.
 - 3) Remove all jewelry.
 - 4) Roll long sleeves above the elbow.
 - 5) Keep motor cover in place.
 - 6) Do not store turning tools where you must reach over the revolving workpiece to select them.
- f. To avoid injury from accidental starting always turn switch off, unplug power cord, and remove switch key before removing the guard, installing or removing the workpiece, accessory or attachment, or making any adjustments.
- g. To avoid losing control of the turning tool causing injury:
- 1) Use both hands spaced apart and keep a firm hold of the turning tool.
 - 2) Always support the turning tool directly on the tool rest.
 - 3) Always operate the lathe so that the top of the workpiece turns toward you (clockwise facing the left side of the lathe).
 - 4) Keep turning tools sharp.
 - 5) Never start a cut directly at the end where it may catch the workpiece.
 - 6) Always use both hands spaced apart along turning tool for leverage and balance.
- h. Plan your hand placement so your hands will not be where a sudden slip could cause them to contact the workpiece.
- i. To avoid an electrical shock, make sure your fingers do not touch the metal prongs on the plug when installing or removing the plug to or from a live outlet.
 - j. Never turn your lathe "ON" before clearing the area of all objects (tools, scraps of wood, etc.).

3. WHENEVER LATHE IS RUNNING

WARNING: Don't let familiarity (gained from frequent use of your wood lathe) cause a careless mistake. Always remember that a careless fraction of a second is enough to cause severe injury.

- a. If your lathe makes an unfamiliar noise or if it vibrates excessively, turn off the lathe immediately. Remove switch key. Do not restart until the problem is corrected.
 - b. Position turning tool so it will not chatter or kickback.
 - c. Always stand to the side of the turning tool.
 - d. Never position your face over the turning tool.
 - e. Avoid awkward hand positions, where a sudden slip could cause a hand to move into the workpiece.
 - f. Complete hand sanding of spindle turnings BEFORE removing from the lathe using the same or slower turning speed.
 - g. Never leave the lathe work area without turning the lathe off, removing the switch key and waiting for the lathe to come to a complete stop.
4. To avoid injury use only recommended accessories listed in the accessory section.
- a. Do not mount and use a reamer, milling cutter, wire wheel, buffing wheel or a drill bit on the headstock spindle.
 - b. Use the drill chuck accessory on the tail stock only.
 - c. Do not mount any drill that extends more than 6" beyond the chuck jaws.

glossary of terms

Spur Center (Live Center)

Installed in the spindle of the headstock . . . supports the workpiece on center at the headstock . . . transfers power from the headstock to the workpiece causing the workpiece to rotate . . . referred to as a live center because it rotates.

Cup Center (Dead Center)

Installed in the spindle of the tail stock . . . supports the workpiece on center at the tailstock . . . referred to as a dead center because it does not rotate.

Spindle Turning (Turning Between Centers)

Refers to the placement of a workpiece between the headstock and tailstock . . . the spur center and cup centers are used to hold the workpiece in place.

Faceplate

May be attached to the spindle of the headstock . . . used to support a workpiece by the headstock alone (tailstock not used for support).

Faceplate Turning

Made possible by the use of a faceplate for the purpose of turning a workpiece that is to be made into a disc shape such as a bowl . . . support of the workpiece is by the headstock only.

Headstock

It is stationary at the left end of the bed . . . contains a spindle that the spur center fits into . . . provides the power to rotate the workpiece.

Tailstock

Slides along the bed of the lathe . . . can be locked to the bed at any point . . . provides support for various length workpieces when performing spindle turning.

Bed

Supports the headstock, tailstock and tool rest.

Turning Tool (Woodworking Chisels)

The sharp tool used to remove wood from the workpiece.

Tool Rest

Supports the turning tool when faceplate turning and also when turning between centers.

Workpiece

The item on which the cutting operation is being performed.

Revolutions Per Minute (RPM)

The number of turns completed by a spinning object in one minute.

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motor specifications and electrical requirements

POWER SUPPLY

Motor Specifications

This wood lathe is designed to use the type motor supplied with the unit only. Do not use any other type motor.

The motor must not be converted to operate on 230 volts.

The A-C motor used in this wood lathe is a non-reversible type having the following specifications:

Rated H.P.	0.5
Maximum Developed H.P.	1.0
Voltage	120
Amperes	7.2
Hertz (Cycles)	60
Phase	Single
RPM	3450
Rotation of Spindle	CounterClockwise

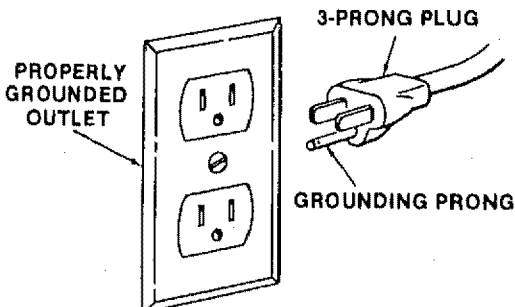
WARNING: To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Your lathe is wired at the factory for 120V operation. Connect to a 120V, 15-AMP, branch circuit and use a 15-AMP, time delay fuse or circuit breaker.

If not properly grounded this power tool can cause electrical shock — particularly when used in damp locations in proximity to plumbing. If an electrical shock occurs there is also the potential of a secondary hazard such as your hands contacting the rotating workpiece or the cutting tool. Not all outlets are properly grounded. To avoid shock or fire replace the power cord if it is worn, cut, or damaged in any way.

If you are not sure that your outlet is properly grounded, have it checked by a qualified electrician.

Your unit is wired for 120 volts, it has a plug that looks like the one shown below.

This power tool is equipped with a 3-conductor cord and grounding type plug listed by Underwriters Laboratories. The ground conductor has a green jacket and is attached to the tool housing at one end and to the ground prong in the attachment plug at the other end.

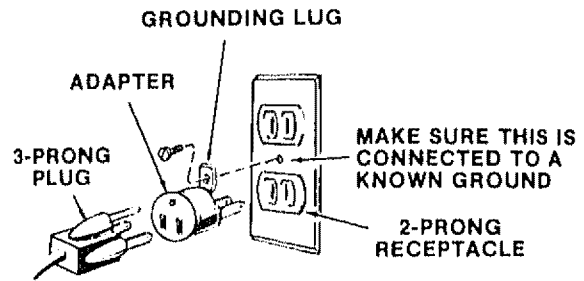


This plug requires a mating 3-conductor grounded type outlet as shown above.

WARNING: To maintain proper tool grounding whenever the outlet you are planning to use for this power tool is of the two prong type, do not remove or alter the grounding prong in any manner. Use an adapter as shown and always connect the grounding prong to known ground.

It is recommended that you have a qualified electrician replace the two prong outlet with a properly grounded three prong outlet.

An adapter as shown below is available for connecting plug to 2-prong receptacles. The green grounding lead extending from the adapter must be connected to a permanent ground such as to a properly grounded outlet box.



NOTE: The adapter illustrated is for use only if you already have a properly grounded 2-prong receptacle.

WARNING: Do not run motor unless headstock is in an upright position. Failure to follow this warning may burn out the motor relay and the motor.

WIRE SIZES

NOTE: Make sure the proper extension cord is used and is in good condition.

The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord. Use only 3 wire extension cords which have 3 prong grounding type plugs and 3 pole receptacles which accept the tool's plug.

CAUTION: For circuits that are farther away from electrical service box, the wire size must be increased proportionately in order to deliver ample voltage to the lathe motor.

Length of the Conductor	Wire Sizes Required (American Wire Gauge Number) 120V Lines
0-25 Feet	No. 16
26-50 Feet	No. 14
51-100 Feet	No. 12

unpacking and checking contents

WARNING: To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a source of power. This cord must remain unplugged whenever you are working on the lathe.

Model 113.228360 Wood Lathe is shipped complete in one box.

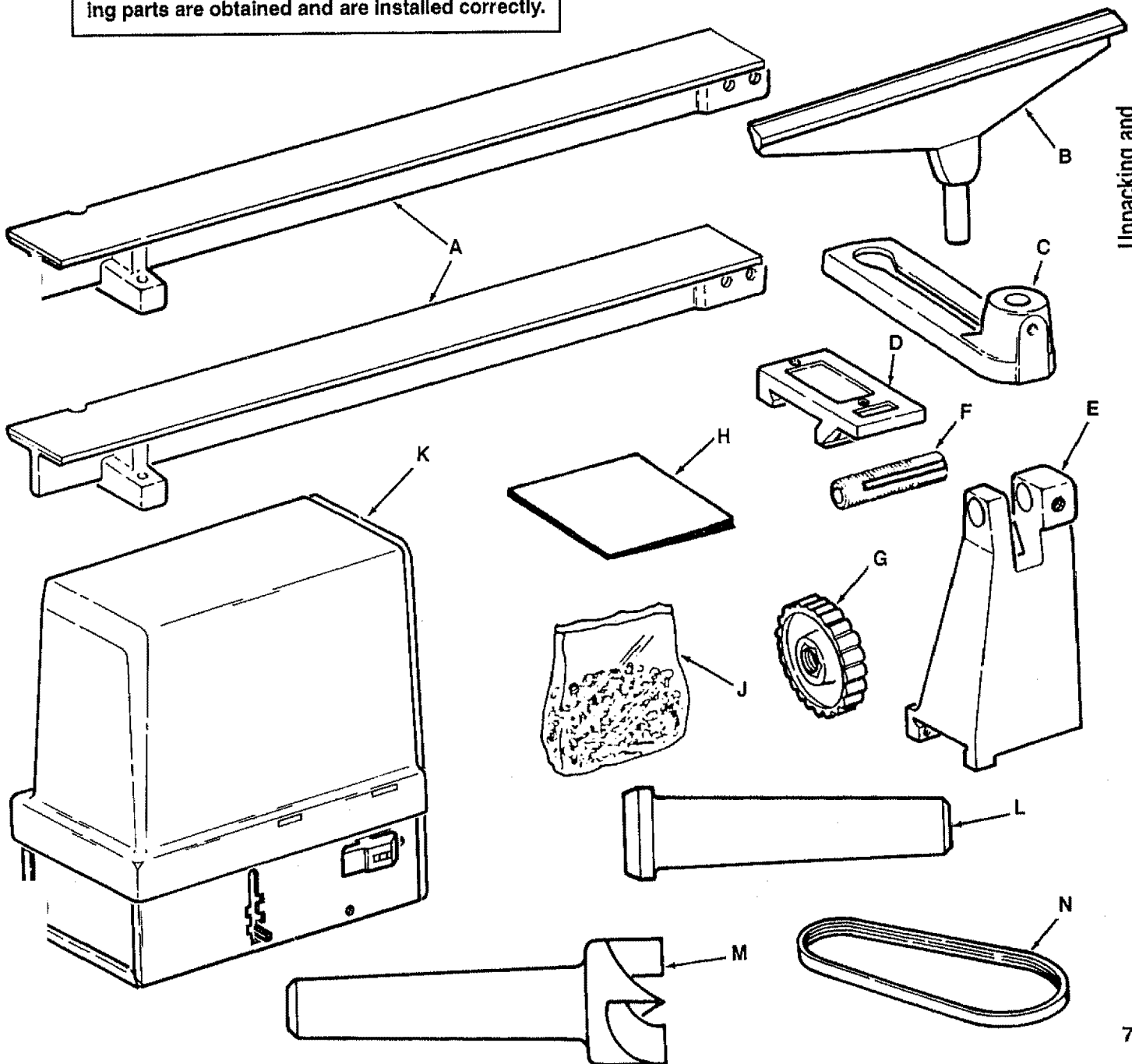
1. Unpacking and Checking Contents

- a. Separate all "loose parts" from packaging materials and check each item with "Table of Loose Parts" to make sure all items are accounted for, before discarding any packing material.

WARNING: If any parts are missing, do not attempt to assemble wood lathe, plug in the power cord, or turn the switch on until the missing parts are obtained and are installed correctly.

TABLE OF LOOSE PARTS

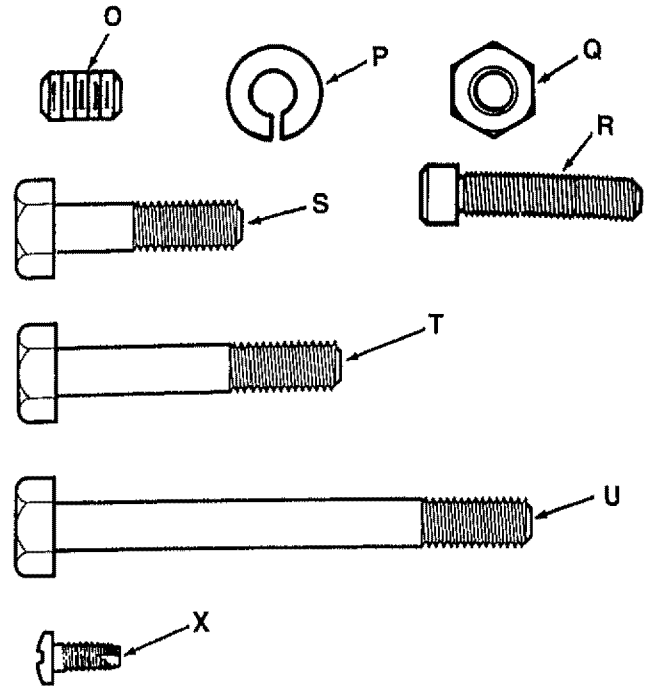
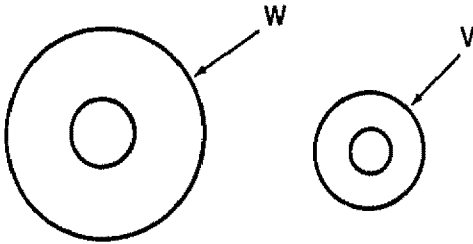
ITEM	DESCRIPTION	QTY.
A	Bed Machined	2
B	Tool Rest 12 In.	1
C	Holder Tool Rest	1
D	Slide	1
E	Tail Stock	1
F	Spindle Tail Stock	1
G	Handwheel	1
H	Owner's Manual	1
J	Bag of Loose Parts	1
K	Headstock/Motor Asm.	1
L	Center Spur	1
M	Center Cup	1
N	Belt Poly "V" 14 In.	1



Unpacking and
Checking Contents

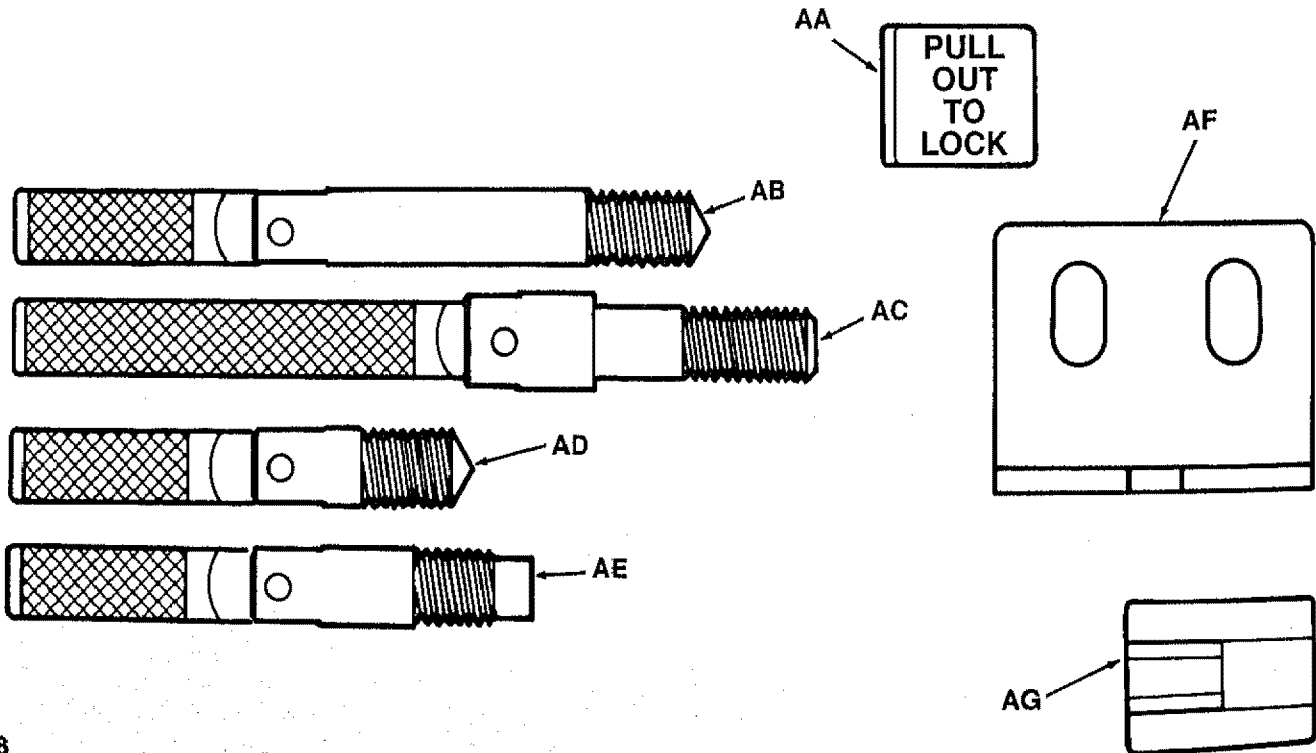
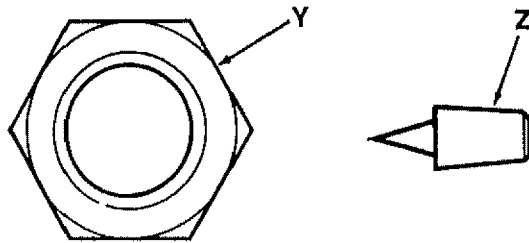
List of Loose Parts in Bag #507743

O	Screw Soc. Hex 1/4-20 x 3/8	1
P	Lockwasher 1/4	7
Q	Nut Hex 1/4-20	7
R	Screw Soc Cap 10-32 x 1	1
S	Bolt Hex HD 1/4-20 x 1	2
T	Bolt Hex HD 1/4-20 x 1-1/2	1
U	Bolt Hex HD 1/4-20 x 2-1/2	4
V	Washer 17/64 x 5/8 x 1/16	9
W	Washer .380 x 1-9/64 x 7/64	1
X	Screw Pan HD Ty "B" #6 x 3/8	1



List of Loose Parts in Bag #507635

Y	Nut Hex 3/4-16	1
Z	Center Point	2
AA	Key Switch	1
AB	Tool Rest Slide Lock 3/8-16 x 3-15/16	1
AC	Tool Rest Lock 3/8-16 x 4-9/16	2
AD	Tail Stock Lock 3/8-16 x 2-5/8	1
AE	Spindle Lock 3/8-16 x 2-15/16	1
AF	Bracket Bed Center	1
AG	Tension Knob	1



location and function of controls

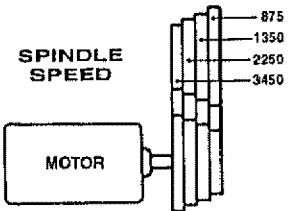
Location and Function of Controls

1. **ON-OFF SWITCH** . . . Turns lathe on and off and locks lathe in off position.
2. **TOOL REST SLIDE** . . . Allows the tool rest to be moved along the bed.
3. **TOOL REST SLIDE LOCK** . . . Locks the tool rest slide to the bed.
4. **TOOL REST LOCK** . . . Locks the tool rest to the tool rest base.
5. **TAILSTOCK LOCK** . . . Locks the tailstock to the bed.
6. **TAILSTOCK** . . . Slides along the bed and supports the workpiece for spindle turning.
7. **SPINDLE LOCK** . . . Locks the spindle in the tailstock.
8. **HANDWHEEL** . . . Moves the tailstock spindle into correct position for support of workpiece when spindle turning.
9. **TAILSTOCK SPINDLE** . . . May be moved back and forth by rotating the handwheel. Supports the cup center.
10. **CUP CENTER (DEAD CENTER)** . . . Installed into the tailstock spindle . . . supports the workpiece on center at the tailstock . . . referred to as dead center because it does not rotate.
11. **TOOL REST** . . . Supports the turning tool.
12. **TOOL REST HOLDER** . . . Allows positioning of the tool rest correct distance away from workpiece.

13. **TOOL REST HOLDER LOCK** . . . Locks the tool rest holder to the tool rest slide.
14. **HEADSTOCK SPINDLE** . . . Supports the spur center.
15. **SPUR CENTER** . . . Installed in the headstock spindle . . . supports the workpiece on center at the headstock . . . transfers power from the headstock to workpiece causing the workpiece to rotate . . . referred to as a live center because it rotates.
16. **MOTOR COVER** . . . Protects operator from contact with hot motor and drive belts.
17. **SPEED CHART** . . . Indicates general recommended speeds for various sizes of workpieces.

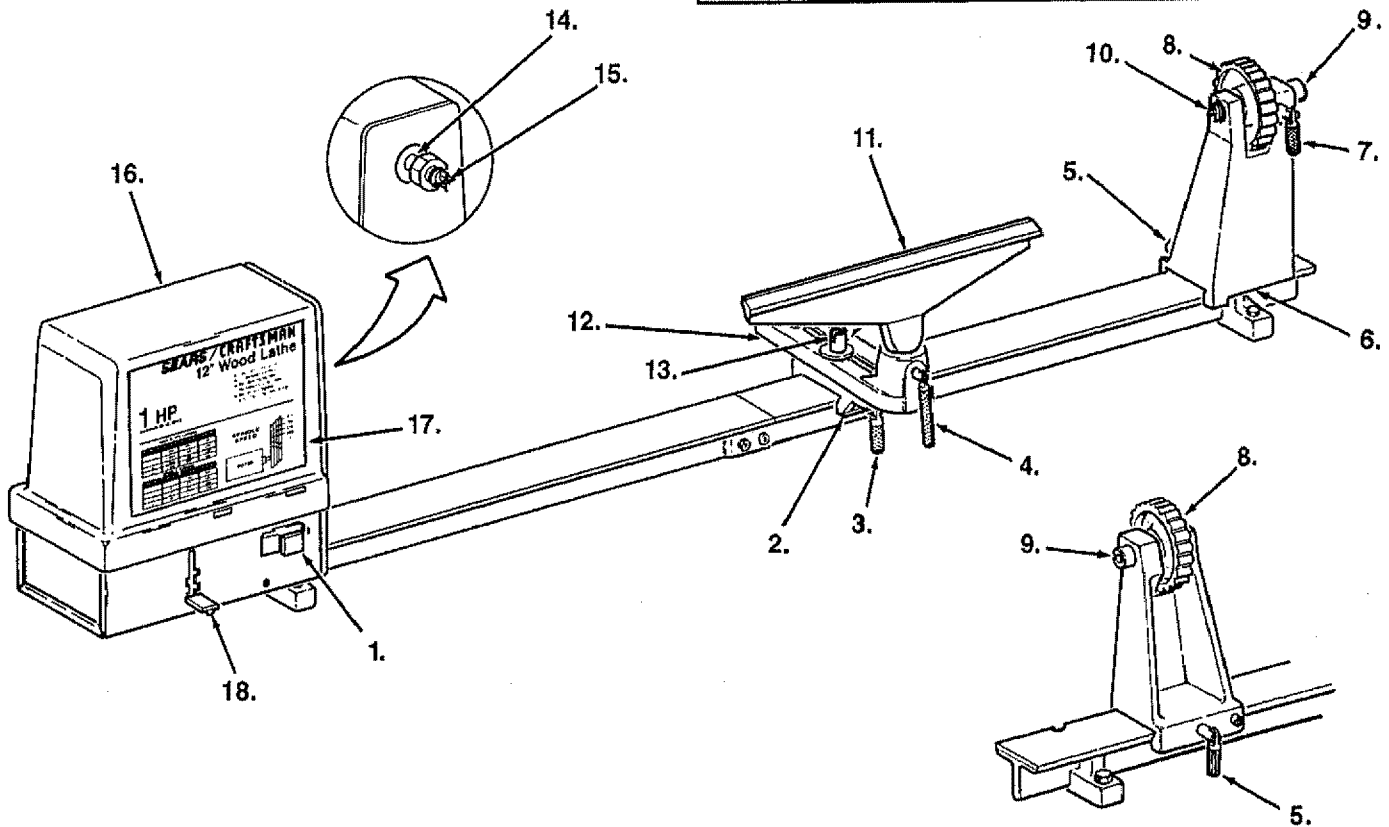
FACEPLATE TURNING			
DIAMETER	THICKNESS	ROUGHING	FINISHING
12	4 MAX	875	1350
10	4 MAX	1350	2250
8	4 MAX	1350	2250
6	4 MAX	2250	3450

SPINDLE TURNING			
SQUARE	LENGTH	ROUGHING	FINISHING
1	12	1350	2450
2	18	875	2250
3	27	875	2250
4	36	675	2250



18. **BELT TENSION ADJUSTMENT LEVER** Allows proper tensioning of the drive belt.

WARNING: To avoid injury from thrown pieces, always use lowest speed when starting a new workpiece, using faceplate, or turning between centers to avoid possible injury.



assembly

WARNING: To avoid injury from unexpected lathe movement and to provide necessary stability, mount the lathe to a stationary work bench with a top at least 1 inch thick.

The lathe should be positioned on workbench approximately 6-1/2" from front edge of workbench and the workbench must extend past both ends of lathe.

Tools Needed:

- 1/8" Hex "L" Wrench
- 5/32" Hex "L" Wrench
- Wrench 7/16"
- Socket 7/16"
- Ratchet (Socket Wrench)
- Socket Extension
- #2 Phillips Screwdriver
- Drill
- 5/16" Drill Bit
- Pliers
- Adjustable Wrench
- Straight Edge
- Hammer



1/8" HEX "L" WRENCH
5/32" HEX "L" WRENCH



7/16" SOCKET



7/16" WRENCH



SOCKET EXTENSION



#2 PHILLIPS SCREWDRIVER



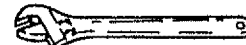
SOCKET WRENCH



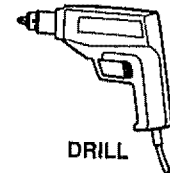
PLIERS



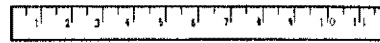
5/16" DRILL BIT



ADJ. WRENCH



DRILL



STRAIGHT EDGE

MOUNTING YOUR WOOD LATHE TO WORKBENCH

1. Locate two sections that make up lathe bed. Place sections on workbench. Slide the two ends against each other as shown in illustration.
2. Locate center bed mounting bracket in loose parts bag. Also locate two (2) 1/4-20 x 1 hex head bolts, two (2) 1/4" lockwashers and two (2) 1/4" nuts. Place bolts through holes in center bed mounting bracket and through holes in center of lathe bed as shown. Place 1/4" lockwashers and nuts on the bolts and hand tighten. To allow alignment of the bed sections, nuts must be tight enough to hold bed sections in a selected position but not so tight that bed sections cannot be moved under the bolt heads.

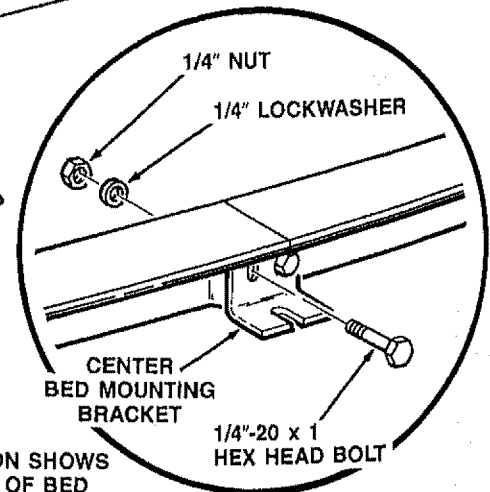
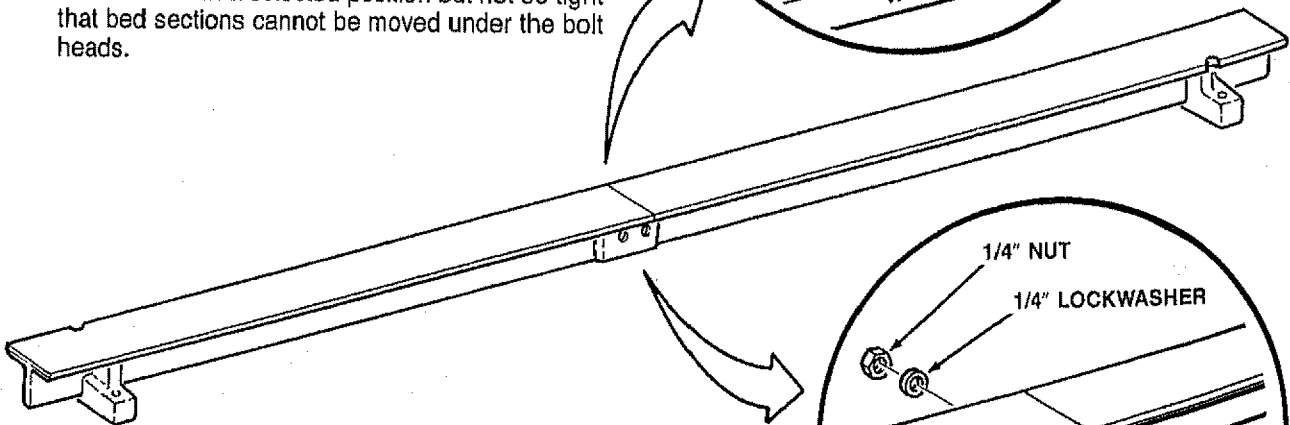
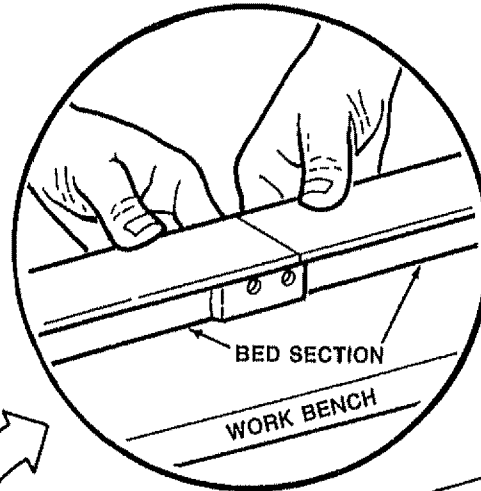
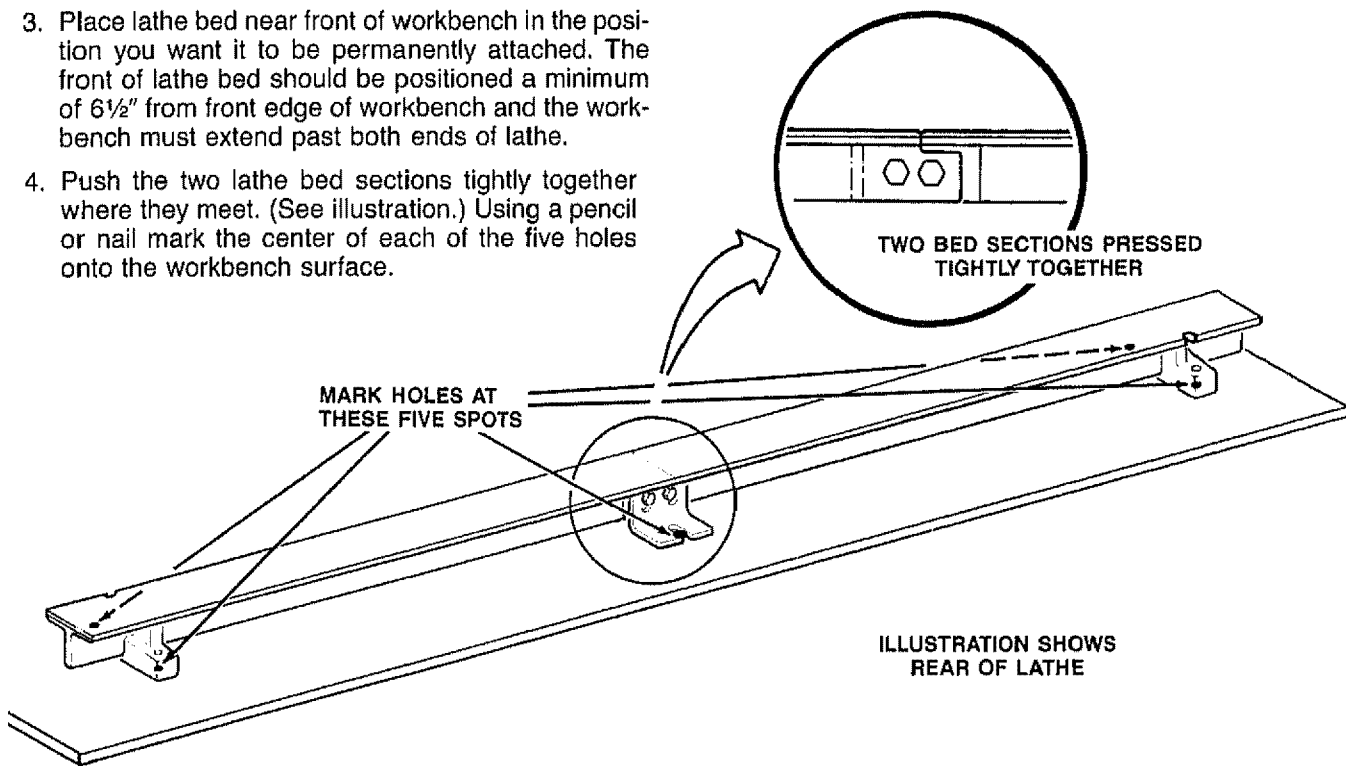


ILLUSTRATION SHOWS BACKSIDE OF BED

- Place lathe bed near front of workbench in the position you want it to be permanently attached. The front of lathe bed should be positioned a minimum of 6½" from front edge of workbench and the workbench must extend past both ends of lathe.
- Push the two lathe bed sections tightly together where they meet. (See illustration.) Using a pencil or nail mark the center of each of the five holes onto the workbench surface.

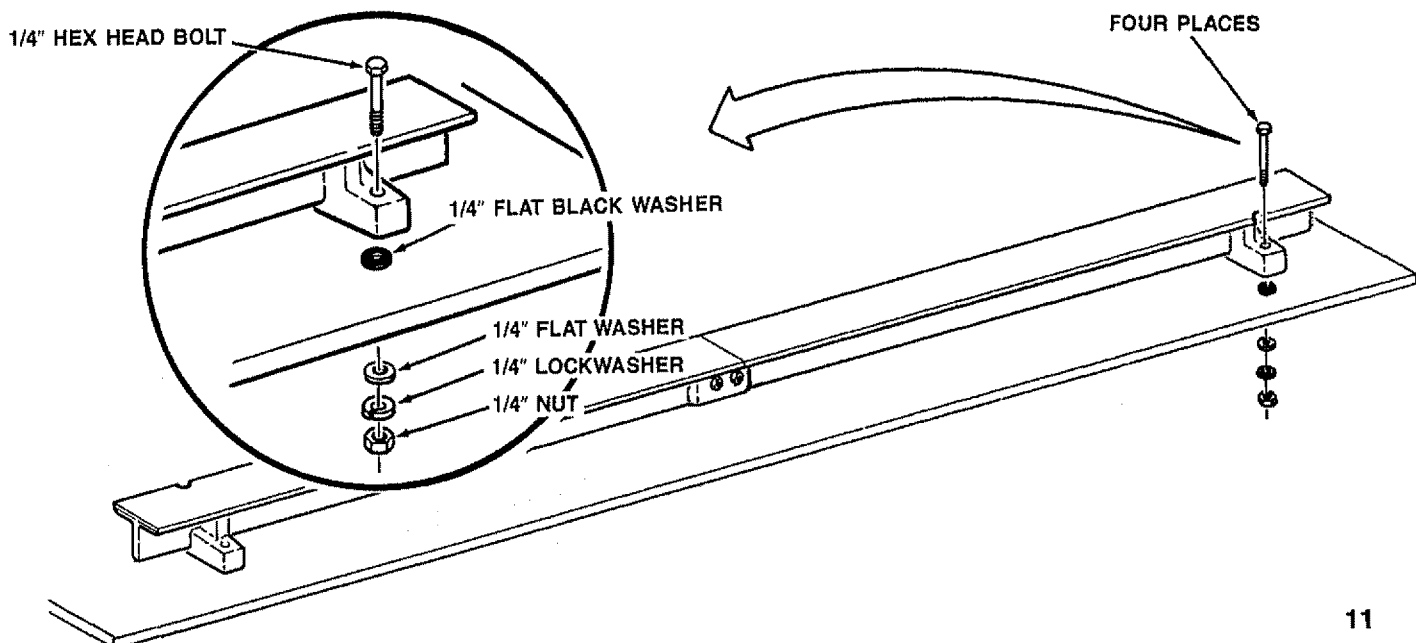


WARNING: Check under the workbench before drilling holes to make sure electrical wires, gas pipes, etc., will not be hit by drill bit.

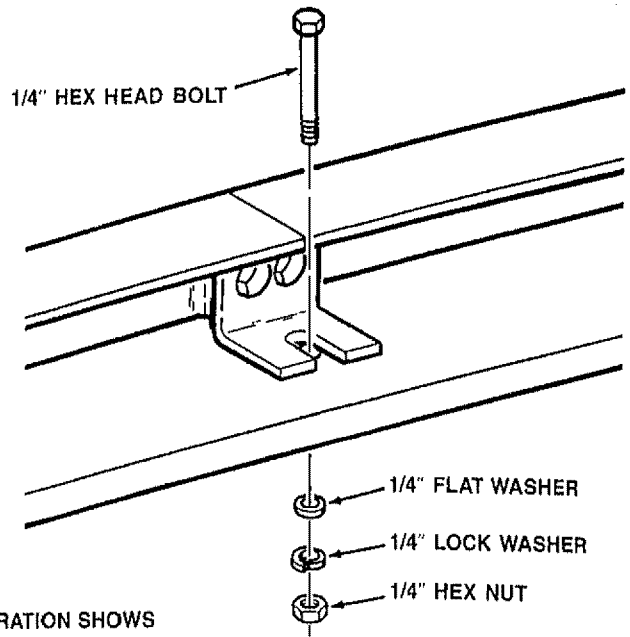
- Move lathe bed out of the way so pencil marks can be seen. Using a drill and 5/16" bit, drill through workbench at each pencil mark. (Use a center punch or nail to dent workbench surface at each pencil mark before drilling holes. This will prevent holes being drilled off center.)
- From the loose parts bag locate four, black 1/4" flat washers. Position one washer over each drilled hole, except hole drilled at center of bed. Now po-

sition lathe bed so holes in bed line up with holes in washers and holes drilled in workbench. (See illustration.)

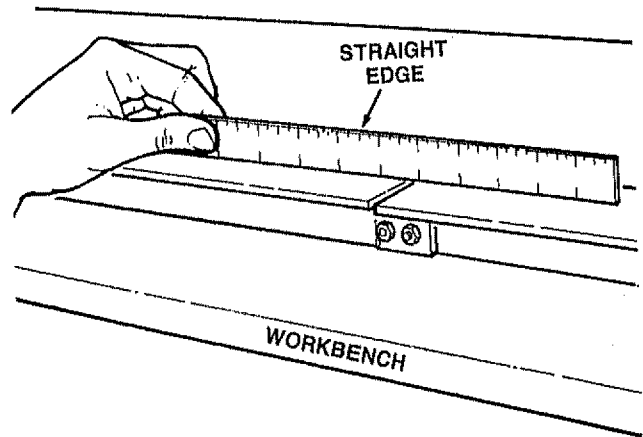
- From the loose parts bag find four (4) 1/4" x 2-1/2" hex head bolts. Place the four bolts through drilled holes at each end of lathe bed and down through workbench. (Supplied bolts are for use with a one inch thick workbench)
- From the loose parts bag find four (4) 1/4" flat washers, four (4) 1/4" lockwashers, and four (4) 1/4" hex nuts. Position washers and nuts under table top onto each of the four bolts as illustrated. (Do not tighten at this time.)



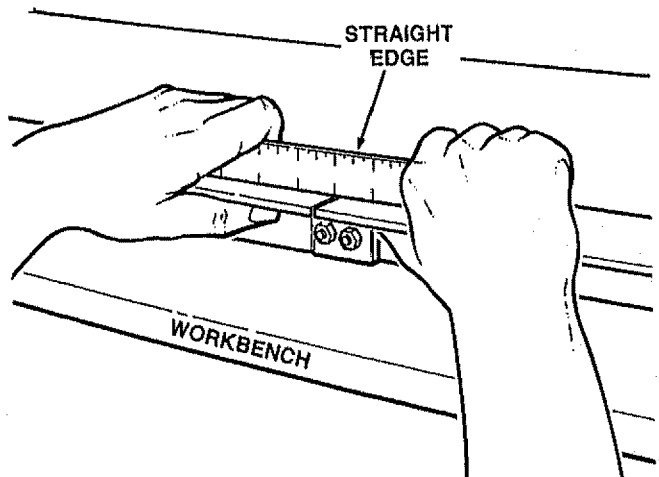
9. From the loose parts bag locate a 1/4" x 1-1/2" hex head bolt, 1/4" flat washer, 1/4" lockwasher, and 1/4" hex nut. Place bolt through center bed mounting bracket and down through drilled hole in the workbench. Place flat washer, lockwasher, and hex nut onto bolt from underside of table and tighten.



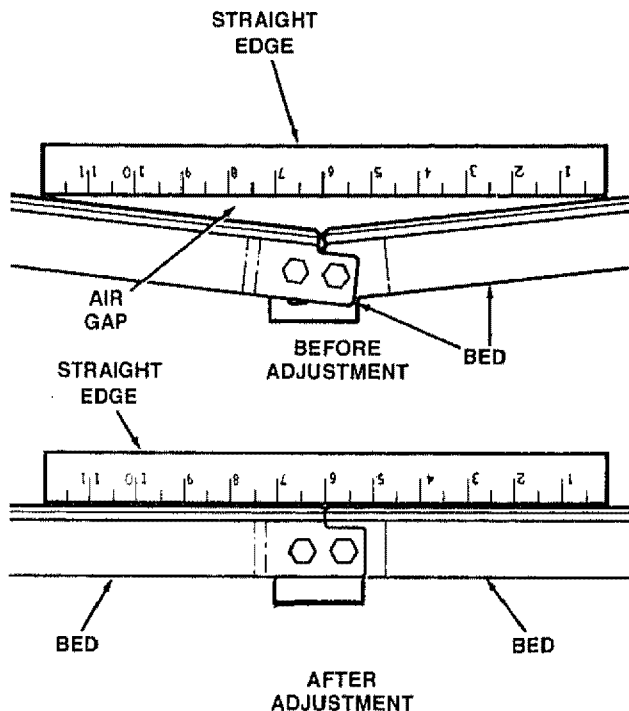
10. Place the edge of a straight edge (at least twelve inches long) on top of bed sections. Position straight edge so it overlaps each section of the bed equally. (See illustration.)



11. Kneel down in front of workbench so straight edge is at eye level. Position your hands as shown in illustration so you can move bed sections up or down while holding straight edge in position.



12. Hold straight edge tightly against bed sections. Lift up on bed sections until air gap between straight edge and bed sections disappears. The edge of straight edge will now be touching bed section along full length of straight edge. (See illustration.) If bolts that hold bed sections together have been properly tightened, the bed sections will remain in this position. If bed sections will not stay in this position, tighten bolts in center of bed a little more and complete Step 11 over again.



13. While you hold the bed sections in this position tighten bolts that hold center bed mounting bracket to the bed sections. The lathe bed should now be straight and level. Use straight edge to make sure bed sections did not move during bolt tightening.
14. Tighten all five nuts under workbench to secure lathe to workbench.

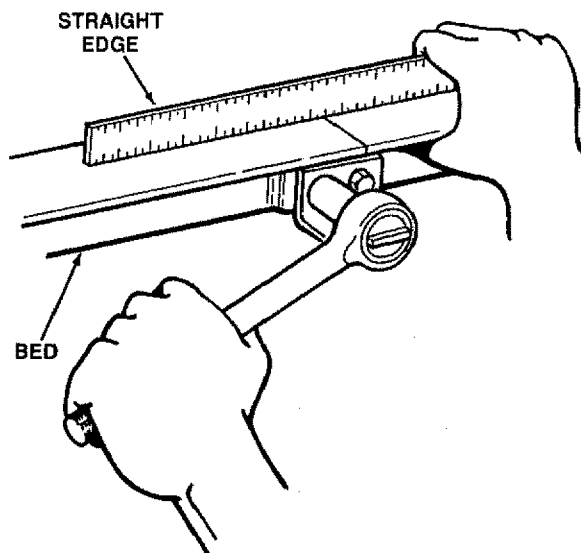


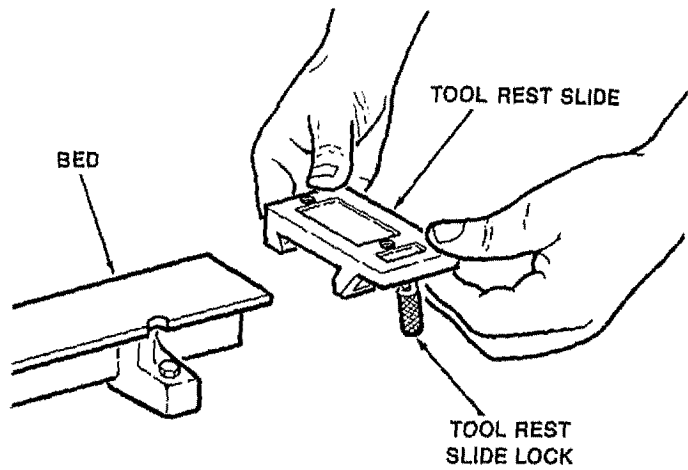
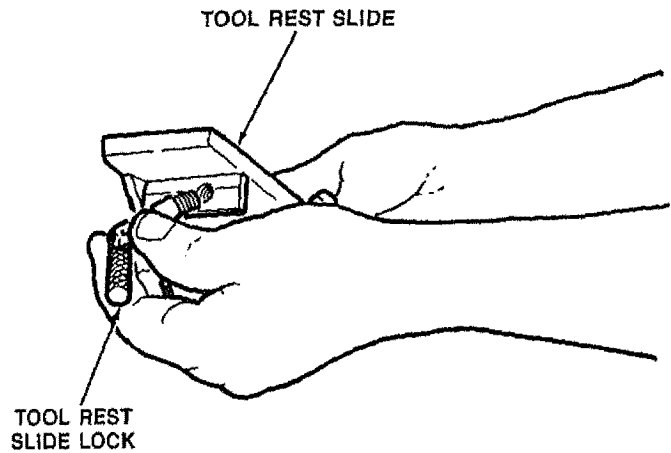
ILLUSTRATION SHOWS REAR OF LATHE



TOOL REST SLIDE LOCK

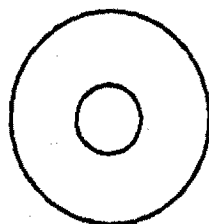
MOUNTING AND ASSEMBLING TOOL REST ASSEMBLY

1. From the loose parts find the tool rest slide and tool rest slide lock. The shape and appearance of tool rest slide lock is as shown in illustration. Slide the tool rest slide onto right end of lathe bed. Screw tool slide lock into tool rest slide (as shown) until tight.

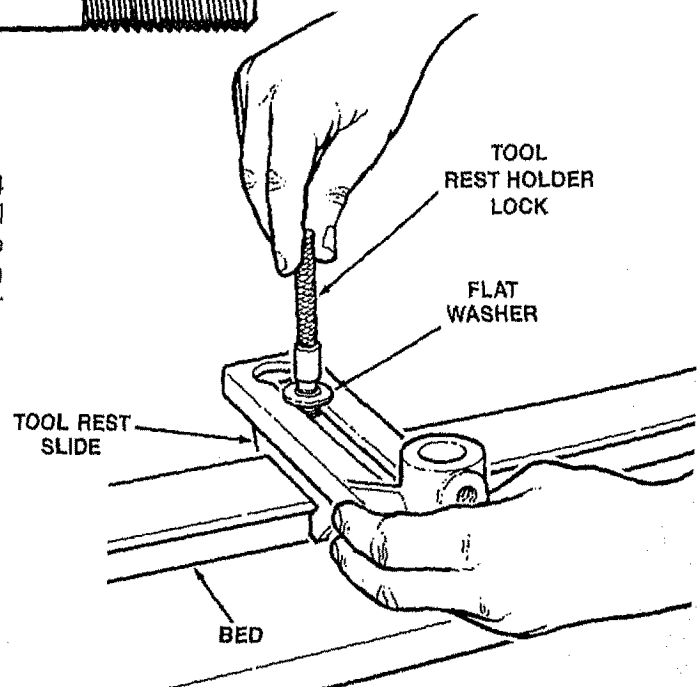


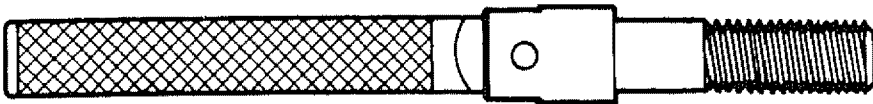
TOOL REST HOLDER LOCK

2. From the loose parts, locate a .380 x 1-9/16 x 7/64 flat washer (see illustration), tool rest holder and tool rest holder lock. The appearance and shape of the tool rest holder lock and flat washer are shown in illustration. Attach tool rest holder and flat washer to tool rest slide as shown.



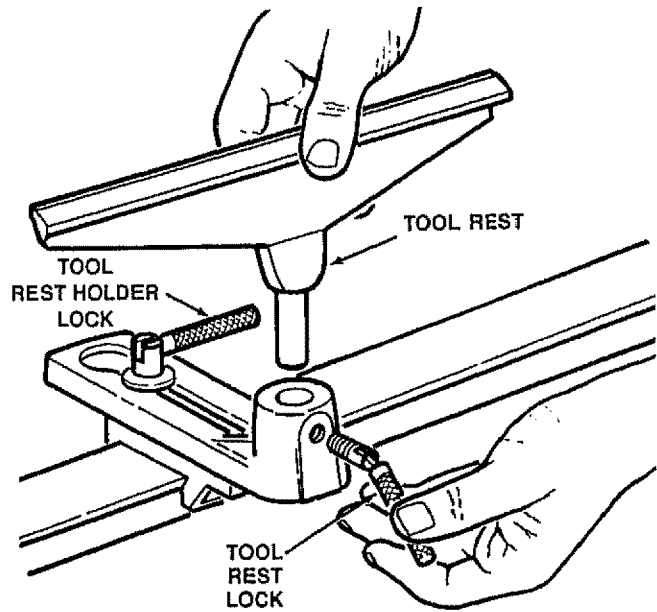
.380 x 1-9/16 x 7/64 FLAT WASHER





TOOL REST LOCK

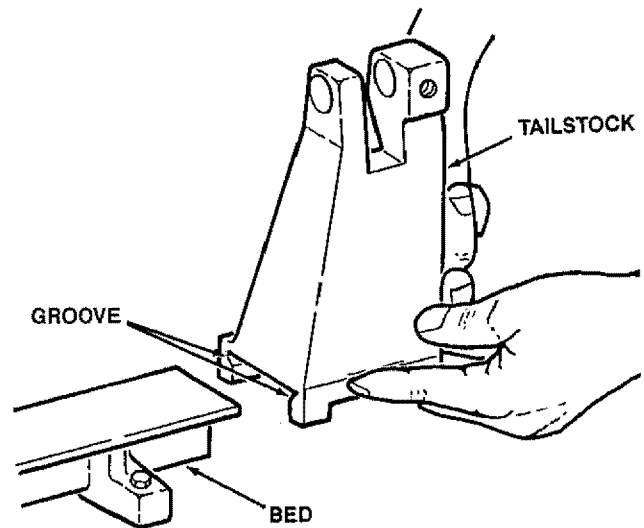
- From the loose parts locate the tool rest and tool rest lock. See illustration for appearance of tool rest lock. Set tool rest in tool rest holder and install tool rest lock as shown.



MOUNTING AND ASSEMBLING TAILSTOCK

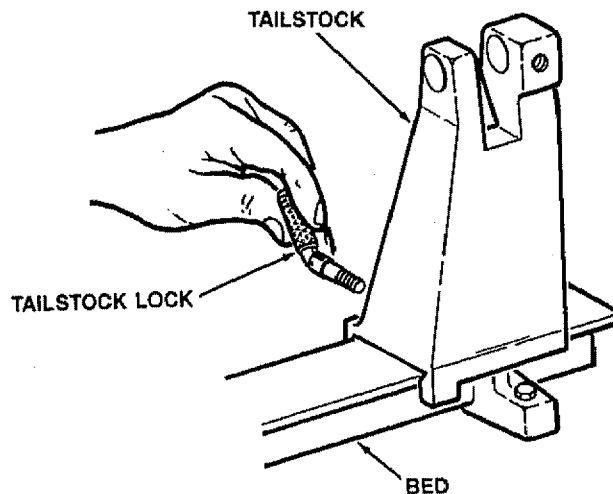
- From the loose parts locate the tailstock. From the loose parts bag locate tailstock lock. The appearance and shape of tailstock lock is shown in illustration.

Slide tailstock onto right end of lathe bed. The top surface of bed fits into V-grooves on both sides of tailstock as shown.

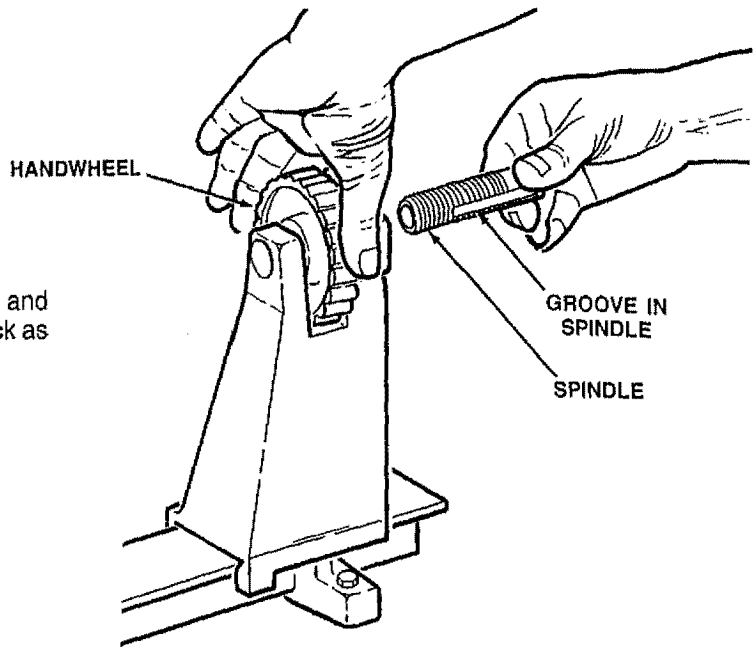


TAILSTOCK LOCK

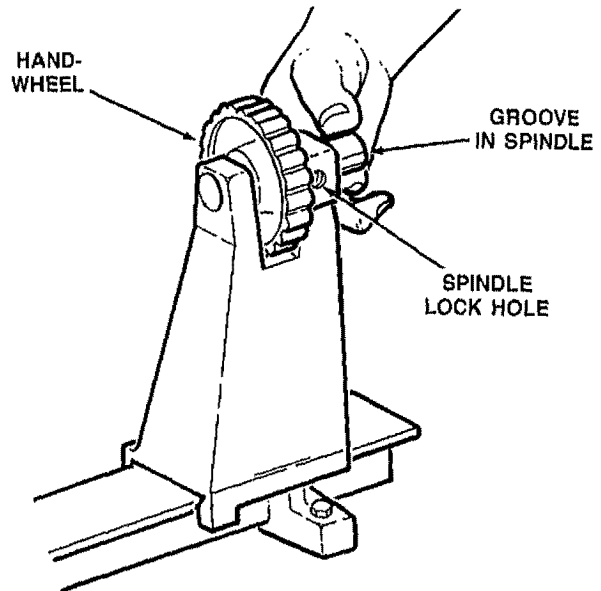
- Install tailstock lock into rear side of tailstock as shown. The size and appearance of tailstock lock is as illustrated.



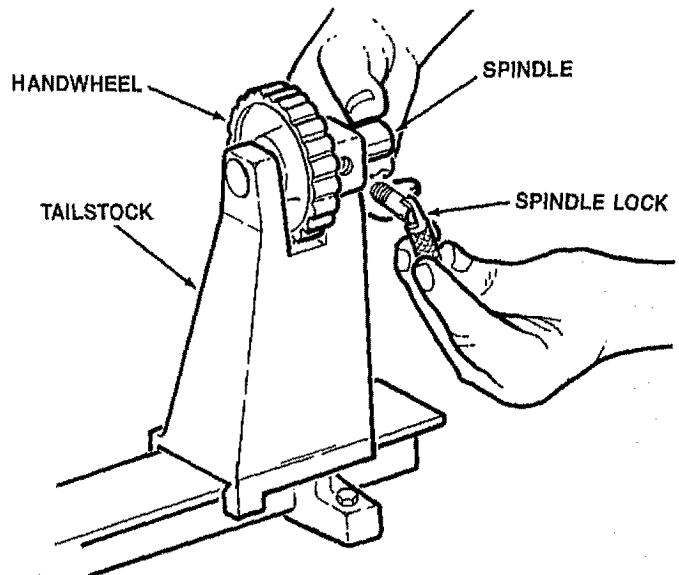
3. From the loose parts locate the handwheel and tailstock spindle. Place handwheel into tailstock as illustrated.



4. Slide spindle through opening on right side of tailstock and thread spindle through handwheel as shown. The groove in spindle must line up with spindle lock hole.



5. From the loose parts bag find the spindle lock. The appearance and shape of spindle lock is shown in illustration. Screw lock into spindle lock hole as shown. Tip of spindle lock must fit into groove in spindle to prevent spindle rotation.

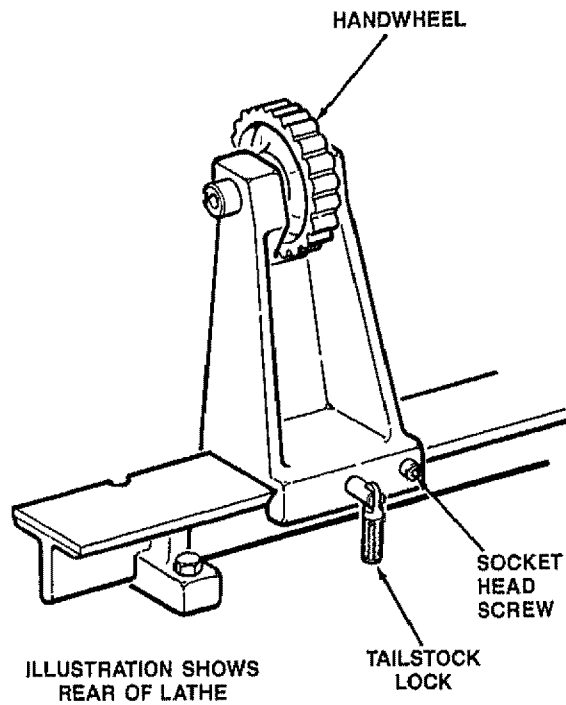




10/32" SOCKET HEAD SCREW

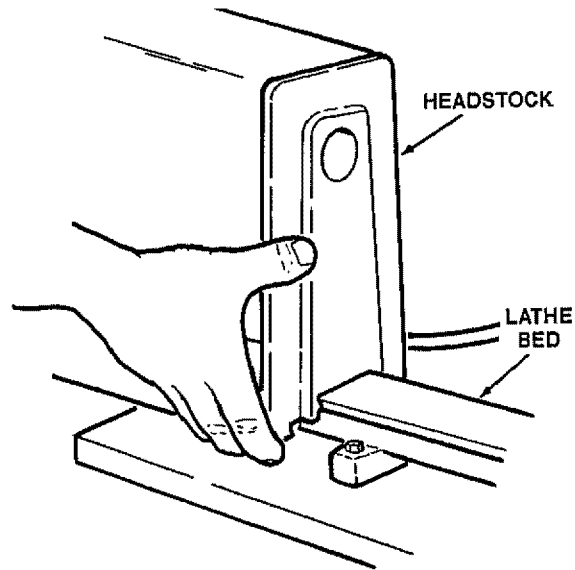
- From the loose parts bag locate a 10/32 x 1" socket head screw. Screw the screw into the back side of the tailstock as shown. Failure to install this bolt will allow tailstock to slide off end of bed. Should it slide off accidentally and fall to the floor, damage to tailstock and cup center could result.

WARNING: The stop screw is for your protection. It prevents the tailstock from being used part way off the end of the bed which could cause the tailstock to loosen when operated the lathe.



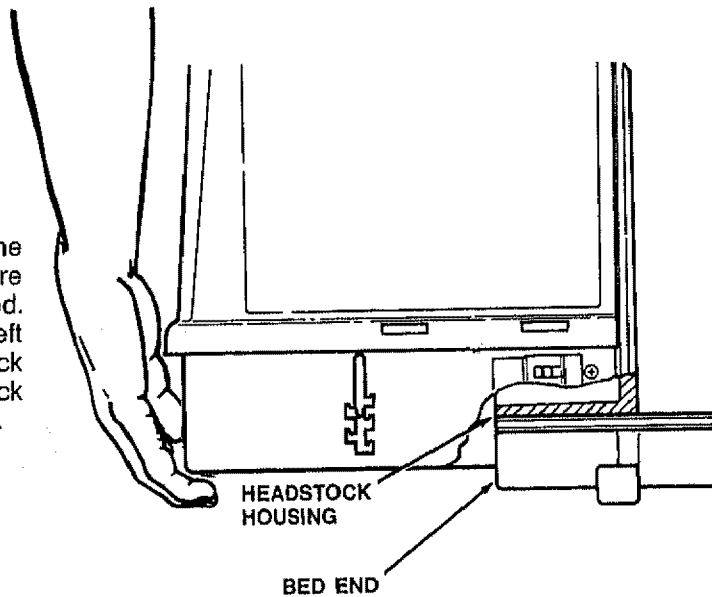
MOUNTING AND ASSEMBLING HEADSTOCK

- Line up V-grooves in headstock with left end of lathe bed. Slide headstock onto lathe bed as far as possible.



Mounting and Assembling Headstock

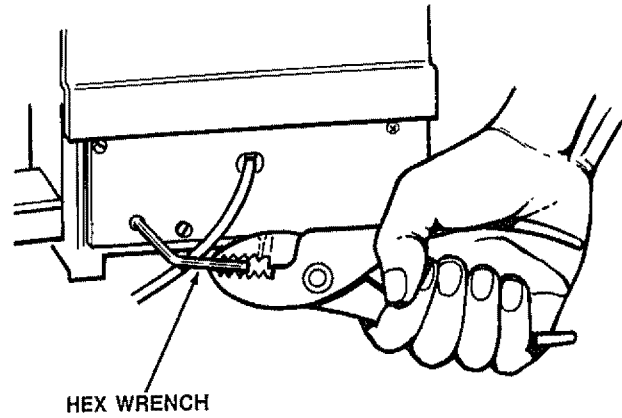
- To be sure headstock is positioned properly on lathe bed, look under headstock and make sure headstock housing is touching end of lathe bed. (See illustration.) Now, place left hand under left end of headstock assembly. Lift up on headstock assembly and push it toward bed. Hold headstock assembly in this position and proceed to step 3.



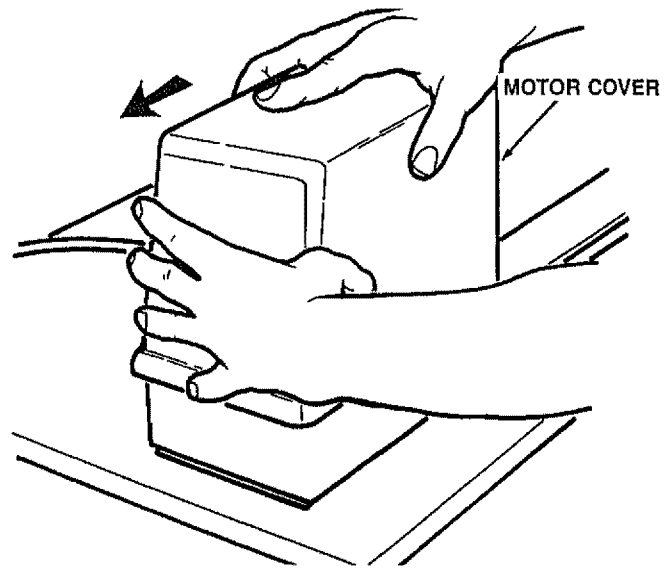
3. Place a 5/32" hex wrench through round opening near power cord on backside of headstock. Insert hex wrench into set screw located 1-1/2" inside round opening. Tighten set screw securely using pliers on the end of the hex wrench.

Check to see that headstock is securely attached to lathe bed by rocking the headstock assembly from left to right, and also up and down. If any looseness is detected retighten the set screw.

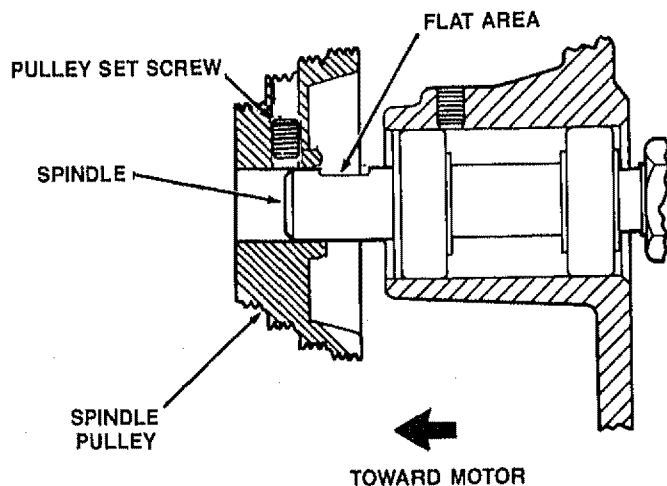
WARNING: Failure to tighten this set screw securely may allow headstock to move during use. This could allow a spindle turning to come loose, fly out, and cause injury to the operator.



4. Remove motor cover from headstock by placing your right and left hand, as illustrated, and pushing cover to the left.



5. Using a 1/8" hex-L wrench loosen the spindle pulley set screw. Slide the spindle pulley to the left and look behind the pulley to locate the flattened section on the spindle. The spindle pulley set screw must be aligned with and screwed down against the flat section on the spindle when completing step 6.

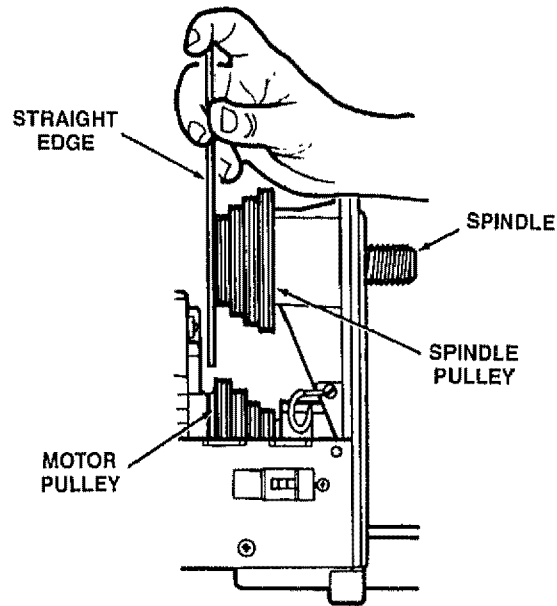


- Place straight edge against spindle pulley so one end of straight edge is just above the large section on motor pulley. With straight edge touching full face of spindle pulley, slide spindle pulley left or right until the straight edge is in line with the left side of motor pulley. (See illustration.) Keep both pulleys aligned with straight edge. Using a 1/8" hex-"L" wrench, tighten set screw securely. Set screw must be positioned straight above flat section on spindle before set screw is tightened.

From the loose parts bag find a 1/4-20 x 3/8" hex socket set screw. Using a 1/8" hex-"L" wrench, screw this set screw into the spindle pulley above the set screw you just tightened. Screw the second set screw down tightly against the first set screw.

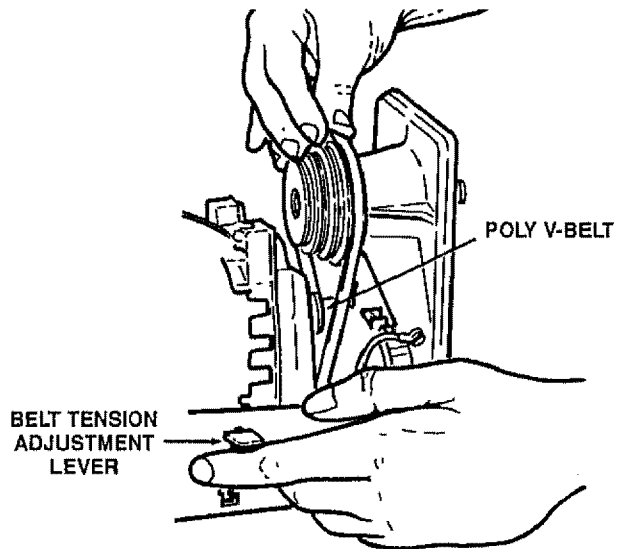


HEX SOCKET
1/4 20 x 3/8 SETSCREW

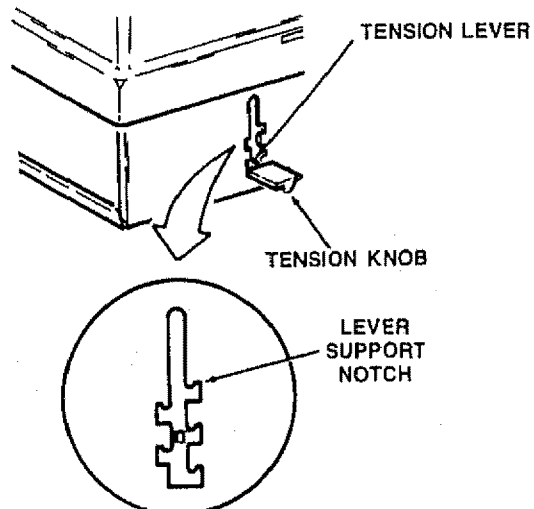


- From loose parts bag, find tension knob. Position knob in front of belt tension lever with flat surface facing upward. Push knob onto belt tension lever as far as it will go. Tap with hammer to seat it completely.
- With belt tension adjustment lever centered in its groove, move lever all the way up. Hold lever in this position and install poly-V belt onto smallest step of motor pulley and largest step of spindle pulley.

NOTE: All three of "V" ribs on poly-V-belt must be riding in a groove on pulleys or loss of power, misalignment, and early belt failure may result.



- Lower belt tension lever and remove your hand. Notice which lever support notch is immediately below the belt tension adjustment lever. Place lever into this notch by pushing down and sideways on the lever. The lever is spring-loaded so if belt slips during operation, place lever in next notch down.
- Re-install motor cover by reversing the instructions followed in Step 4.

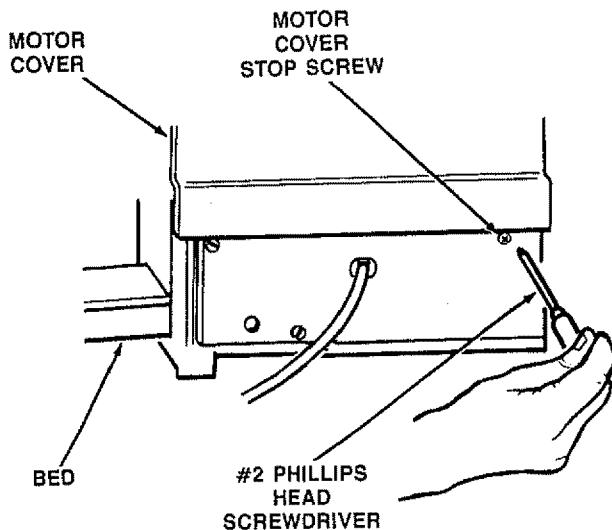


- From the loose parts locate a #6 x 3/8 phillips head screw (see illustration). Using a #2 phillips head screwdriver install this motor cover stop screw. It is located on backside of headstock as shown in illustration.

WARNING: the motor cover stop screw is for your protection. It prevents the motor cover from sliding back too far when moving belt for speed changes. It protects you from touching heated motor after lathe use. It must be reinstalled.

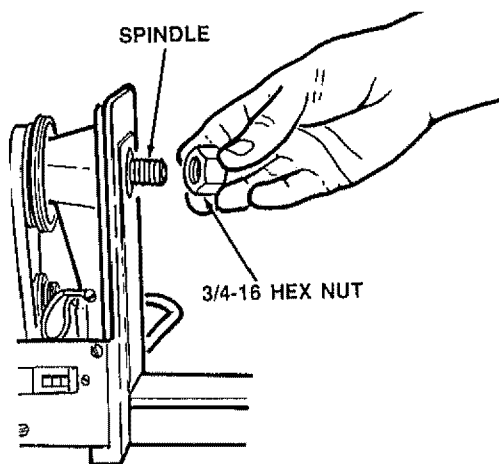


#6 x 3/8 PAN HEAD SCREW

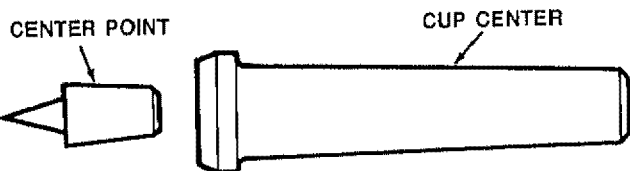


INSTALLATION OF CUP AND SPUR CENTERS

- Find a 3/4-16 hex nut among the loose parts and screw it onto headstock spindle until finger tight.

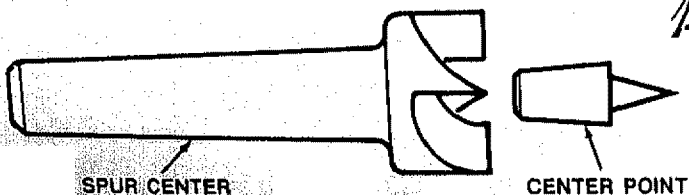
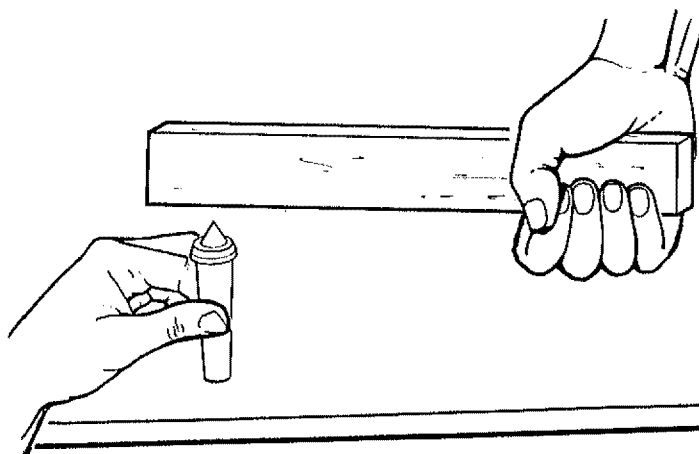


Installation of Cup and Spur Centers



- Find two center points, a spur center, and a cup center among the loose parts. To insert a point into a center, hold the center against workbench as illustrated. Check and be sure that inside of opening at the end of center is clean. Place a point into opening and using a small board, gently tap the point into the center.

Repeat this process on the other point and center.

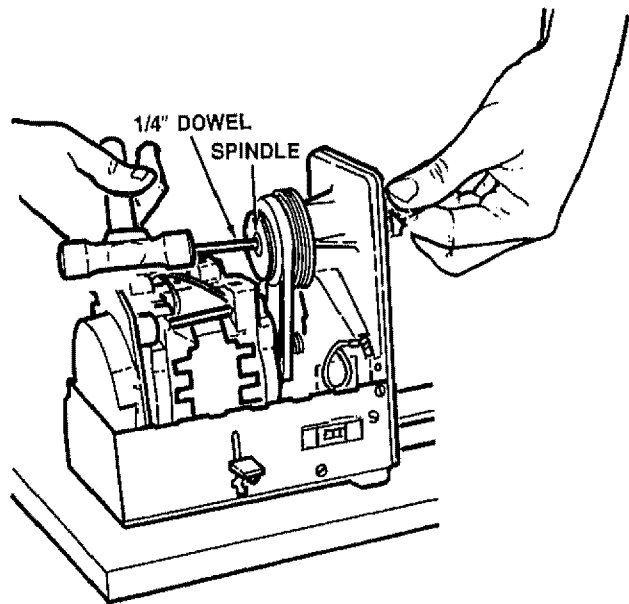


3. Check and be sure that inside of headstock and tailstock spindles are clean. Insert spur center into headstock spindle and cup center into tailstock spindle.

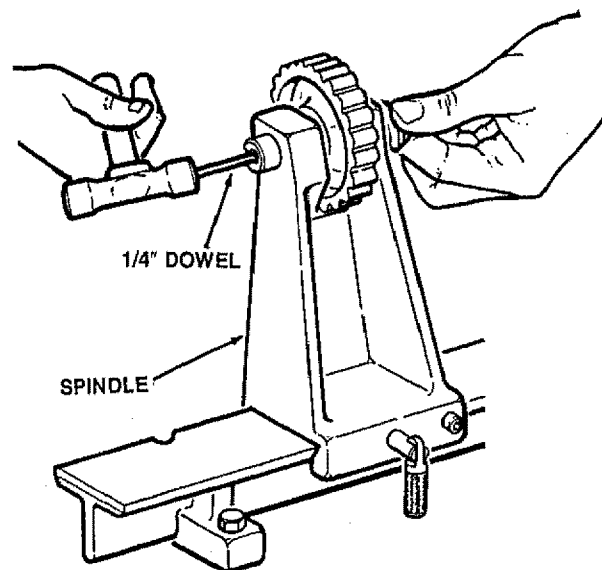
NOTE: Do not drive or hammer spur center and cup center into spindles as removal may be difficult. Use a soft hammer or block of wood and give them a gentle tap.

4. To remove spur center from spindle push motor cover to left, hold the spindle pulley with one hand, and using a wrench, turn the hex nut counterclockwise until center is ejected.

If this method doesn't eject spindle, remove motor cover (see section covering "Mounting and Assembling Headstock"). Insert a 1/4" dowel rod or brass rod through hole in spindle. Hold spur center with one hand and tap dowel or rod with a hammer.



5. To remove cup center insert a 1/4" wood dowel or brass rod through hole in tailstock as shown. Hold center with one hand and tap dowel or rod with a hammer.



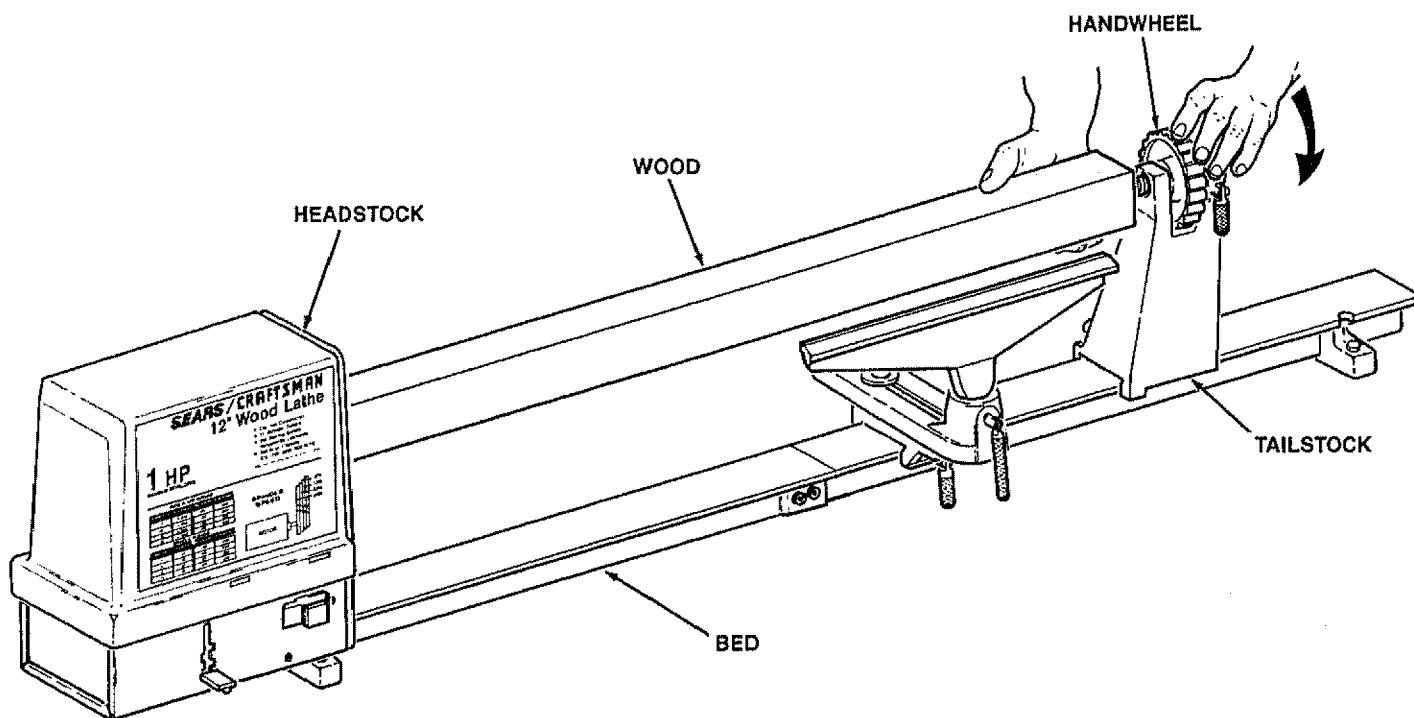
WARNING: Before using the lathe, test to make sure headstock is properly secured to lathe bed. Failure to properly secure headstock to lathe bed may allow headstock to move during use. This could allow a spindle turning to come loose, fly out, and cause injury to operator.

6. To be sure headstock is properly secured to lathe bed, place a piece of wood between the centers as illustrated.

Lock the tailstock to the lathe bed by turning tailstock lock clockwise until tight. Scribe a line on the bed at right edge of headstock.

Rotate top of handwheel toward operator. This applies pressure to the headstock as wood is tightened between centers.

As you continue to tighten handwheel, watch headstock to see if it moves away from the line on lathe bed. It should not move. If it does, go back to section entitled "Mounting and Assembling Headstock" and follow instructions to retighten headstock to bed.



INSTALLATION AND USE OF ON-OFF SWITCH KEY

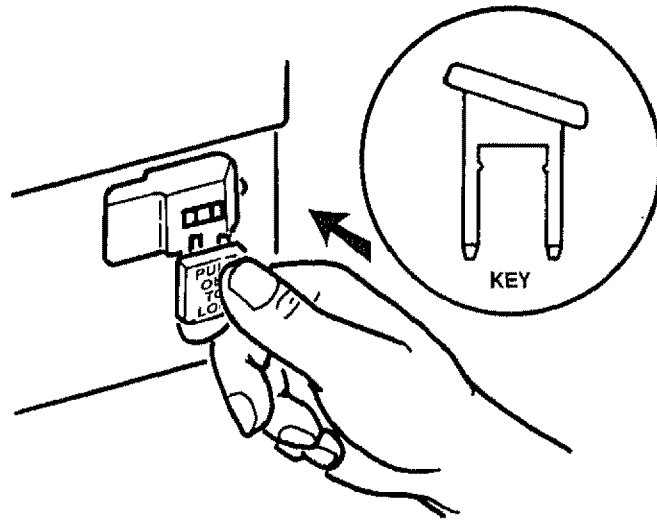
WARNING: Don't connect power cord to an electrical outlet until your lathe is mounted in its upright position. Failure to observe this warning may cause motor relay to burn out.

ON-OFF SWITCH

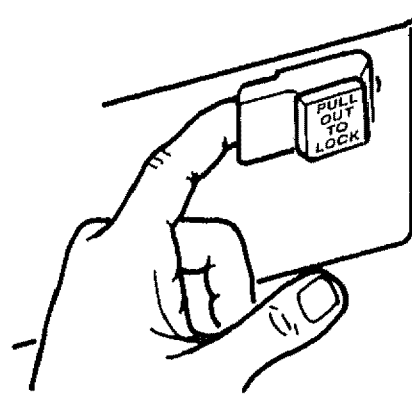
The On-Off Switch has a locking feature. THIS FEATURE IS INTENDED TO PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.

1. Insert key into switch.

NOTE: Key is made of yellow plastic.



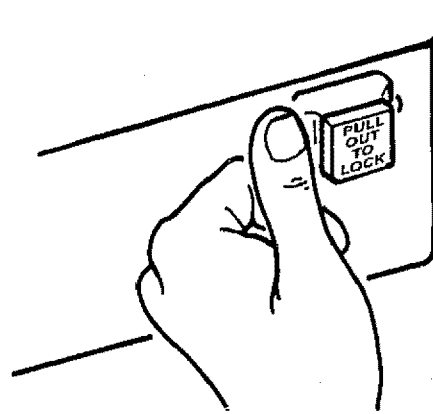
2. To turn Lathe ON . . . INSERT your finger under switch lever and pull END of switch out.



3. To turn Lathe OFF . . . PUSH lever in.

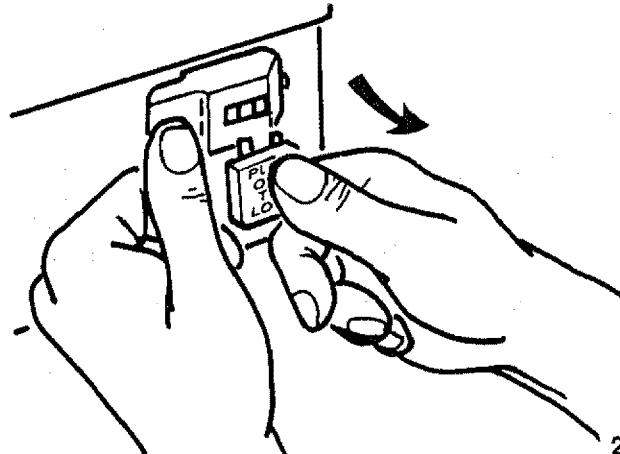
WARNING: Never leave the lathe unattended until it has come to a complete stop and you have removed the switch key.

Do not cycle the motor switch on and off rapidly, as this may cause the faceplate to loosen. In the event this should ever occur, stand clear of the faceplate until it has come to a complete stop . . . retighten it.



4. To lock switch in OFF position . . . HOLD switch IN with one hand, REMOVE key with other hand.

WARNING: For your own safety, always lock the switch "off". When lathe is not in use...remove key and keep it in a safe place...also...in the event of power failure (all of your lights go out) turn switch off...lock it and remove the key. This will prevent the lathe from starting up again when the power comes back on.



basic lathe operation

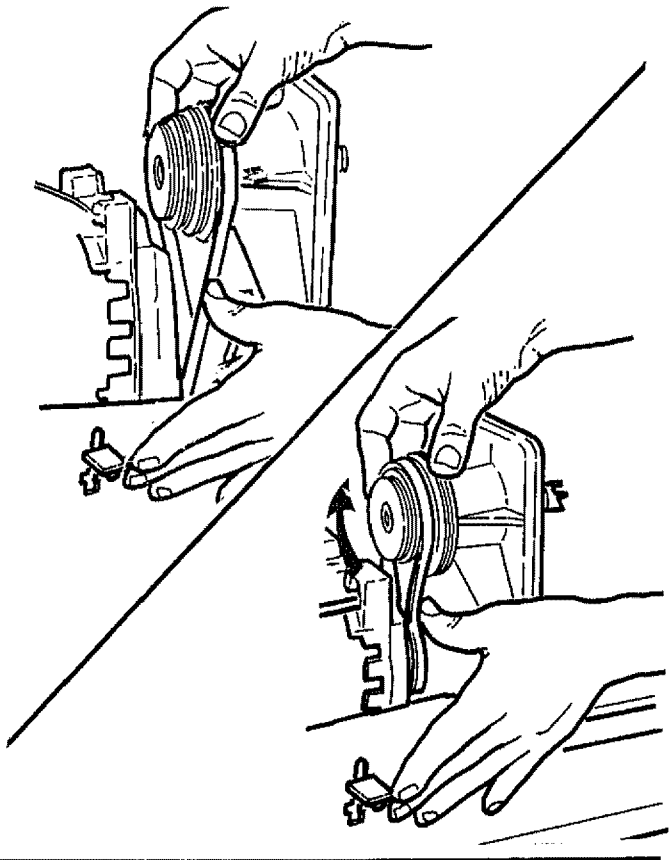
WARNING: To avoid injury from unexpected starting, for your own safety, turn switch "off" and remove plug from power source outlet before making any adjustments or setups.

CHANGING SPEEDS

The belt is shown positioned on smallest motor pulley and largest spindle pulley. This causes lathe to operate at 875 RPM.

To run the lathe faster — say 1350 RPM. You must shift the belt toward the motor.

1. Make sure power cord is removed from the outlet.
2. Release belt tension adjustment lever by pushing it down and moving it to the center of the slot.
3. With motor cover slid back, turn spindle pulley counterclockwise with your left hand while pushing belt toward motor with your right hand.
4. Keep turning pulley while pushing on belt until it "climbs" down onto the next smaller section of spindle pulley.
5. Now turn spindle pulley clockwise while continuing to push belt toward motor until belt "climbs" up onto next larger step of motor pulley.

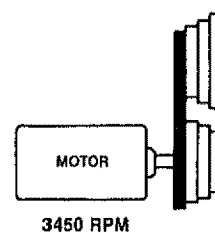
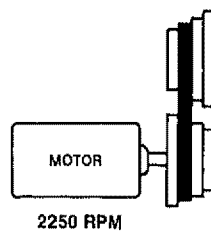
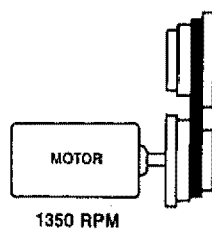
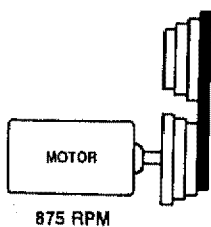
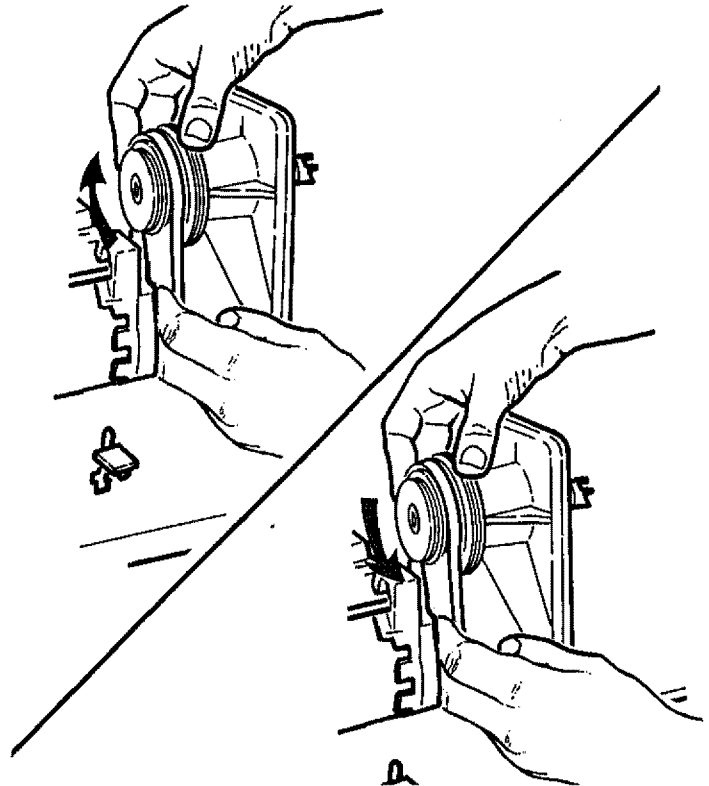


To make the lathe go slower, the belt must be shifted away from the motor.

1. Turn spindle pulley clockwise with your right hand while pushing belt away from motor with your left hand.
2. Keep turning pulley until belt "climbs" down onto next smaller step of motor pulley.
3. Now turn spindle pulley counterclockwise while still pushing belt away from motor until belt "climbs" up onto next larger step of spindle pulley.

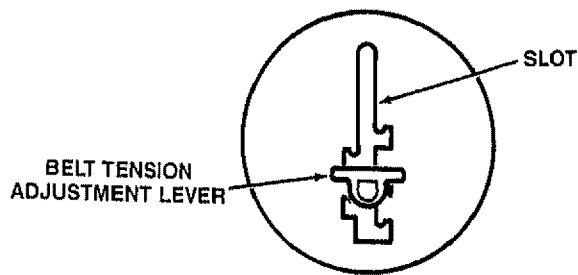
NOTE: The belt must be fully engaged on the selected pulley section before adjusting the belt tension lever. Failure to do so could cause slipping of the belt and early belt failure.

WARNING: Motor cover must be slid closed after belt change is complete to prevent injury during operation.



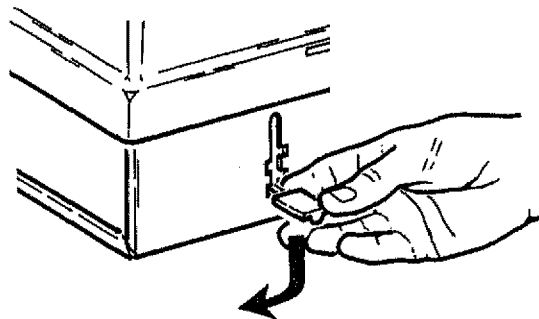
BELT TENSION ADJUSTMENT

1. Place belt tension adjustment lever in middle of long slot.



2. Notice which lever support notch is immediately below belt tension adjustment lever. Place lever in this notch by pushing down and sideways on the lever.

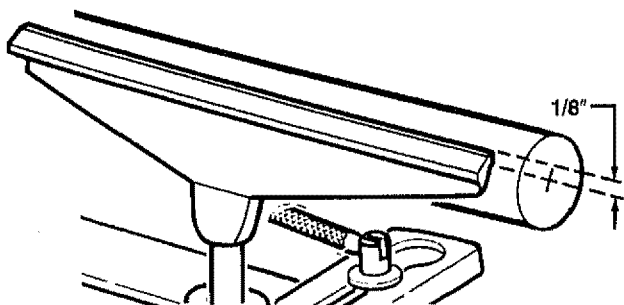
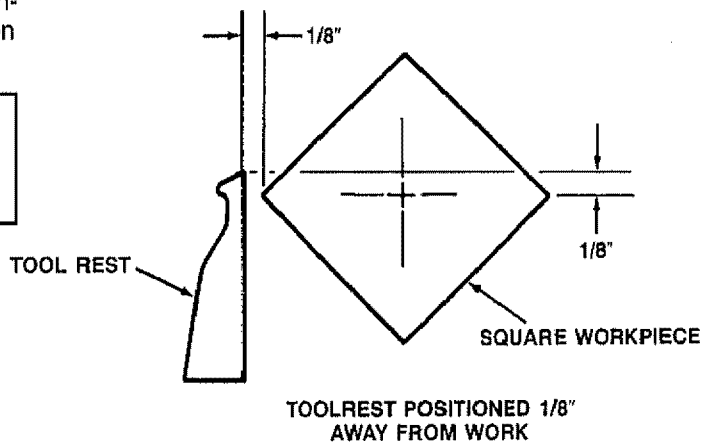
The lever is spring loaded so if belt slips during operation, place lever in next lower notch.



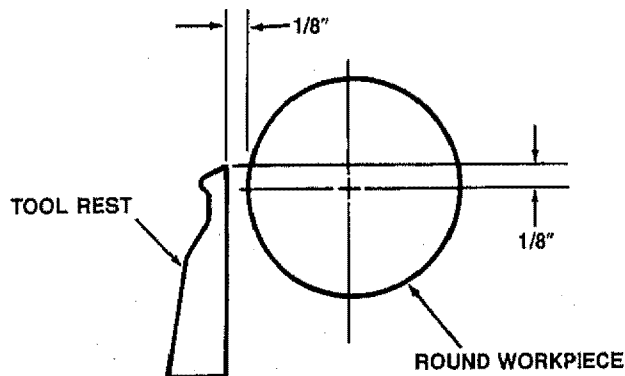
POSITIONING OF THE TOOLREST

The tool rest should be positioned $1/8$ inch above centerline of workpiece and $1/8$ inch away from the section on the workpiece to be cut.

WARNING: Failure to position the tool rest as described can result in a turning tool being thrown from your hand, causing severe injury.



TOOLREST POSITIONED $1/8$ ' ABOVE CENTERLINE OF WORKPIECE



Positioning Belt Tension
of the Tool Rest Adjustment

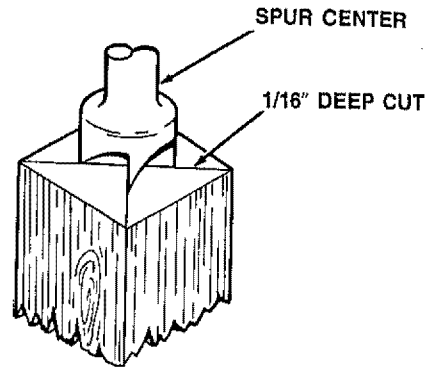
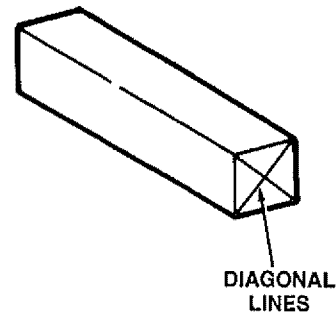
basic lathe operations

MOUNTING WOOD FOR SPINDLE TURNING

WARNING: To avoid injury from unexpected starting, turn switch "off" and remove switch key before mounting workpiece in lathe. We recommended that spindle turnings larger than four inches in diameter not be attempted.

If you have not done a lot of wood turning, we suggest you start by mounting a small spindle turning. Follow these steps:

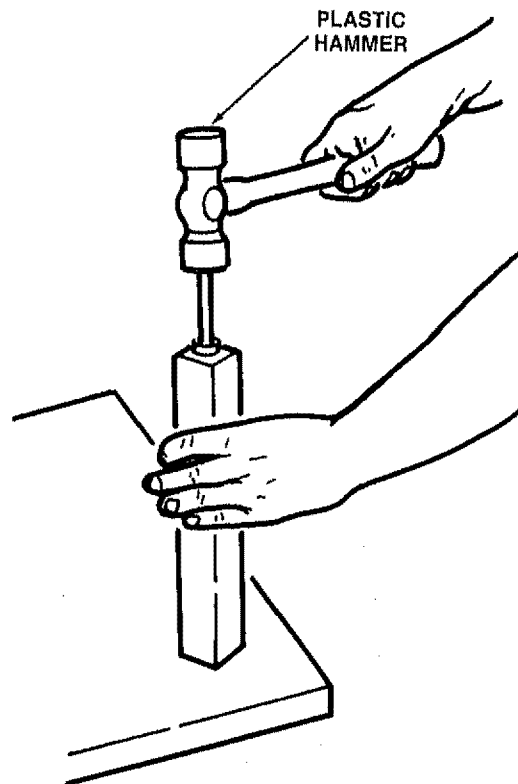
1. Carefully inspect and select a piece of wood 2" x 2" x 12" and always use wood free of checks, splits, cracks or knots.
2. Draw diagonal lines across each end of wood to locate the center of each end.
3. On one end using a non-power handsaw, make a saw cut approximately 1/16" deep on each diagonal line. The spurs on the spur center will be placed in these cuts.
4. The other end is for the cup center. Place point of cup center on the wood where diagonal lines cross.



5. Drive cup center into wood. Use a wooden mallet or a plastic hammer. If you don't have one, use a steel hammer, but put a piece of wood on the end of cup center to protect it. Remove the cup center.
6. Drive the spur center into other end of wood. Make sure the spurs are in the saw cuts. Remove spur center.
7. Make sure the centers and the holes in the headstock spindle and tailstock spindle are clean. Insert spur center into headstock and cup center into tailstock and tap them in lightly with a piece of wood. Do not drive them in.
8. Put a drop of oil or wax on the wood where it contacts the cup center. This will lubricate the wood while it is turning.
9. Place the wood between the centers and lock the tailstock.

WARNING: To avoid injury from thrown pieces, be sure the spur center and cup center are firmly seated against the workpiece and that the tailstock is securely locked in place.

10. Move the cup center into the wood by turning tailstock hand wheel. Make sure cup center and spur center are "seated" into wood in holes made in steps 5 and 6 above. Turn the wood by hand while turning the hand wheel until the cup center and spur center are tight against workpiece.
11. Lock the tailstock spindle by tightening the spindle lock.



12. Adjust the tool rest approximately 1/8" away from the corners of the wood and 1/8" above the center line. Note the angled position of the tool rest base.

WARNING: For your own safety, after adjusting the tool rest be sure and lock the tool rest holder, the tool rest slide and the tool rest.

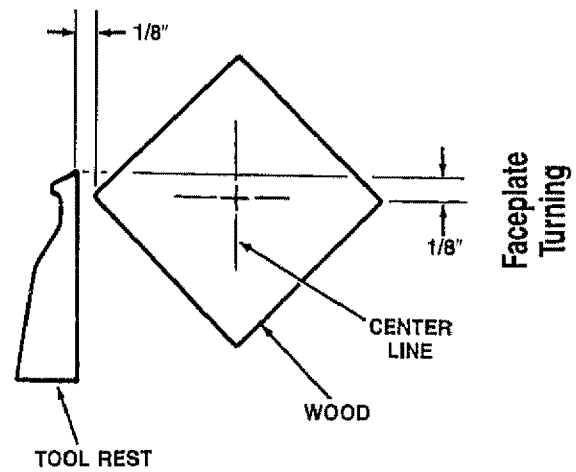
Look at the speed chart. Notice that a 2" square turning up to 18" long should run at 875 R.P.M. for "roughing." Move the Poly-V-Belt on the pulleys to the slowest speed as outlined under "Changing Speeds" section.

When finish-turning any size wood, notice that the recommended speed of the lathe is increased considerably above the rough-turning speed.

However, if excessive vibration occurs at any speed always shut the lathe off immediately and reduce the speed until the vibration is not excessive.

During any spindle turning operation check all locks frequently for tightness. Also frequently check the fit of the cup center against the turning. Do not allow the wearing away of wood to cause a loose fit.

WARNING: To avoid injury from thrown pieces, turn workpiece by hand to make sure it doesn't hit any parts of the lathe. Always make sure the workpiece is properly mounted and the lathe is set at the proper speed (RPM) before re-inserting the switch key. Never spindle turn workpieces longer than these specified in the chart for the sizes shown. Never spindle turn workpieces greater than 4" square.



FACEPLATE TURNING

DIAMETER	THICKNESS	ROUGHING	FINISHING
12"	4" MAX	875	1350
10"	4" MAX	1350	2250
8"	4" MAX	1350	2250
6"	4" MAX	2250	3450

SPINDLE TURNING

SQUARE	LENGTH	ROUGHING	FINISHING
1"	12"	1350	3450
2"	18"	875	2250
3"	27"	875	2250
4"	36"	875	2250

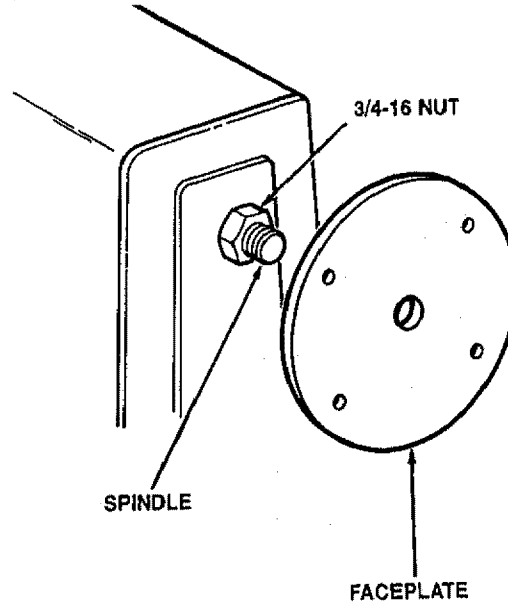
FACEPLATE TURNING

WARNING: When doing faceplate turnings, always follow instructions supplied with the faceplate for mounting the workpiece to the faceplate. (for one (1) possible exception—see "special note" to the right) workpieces not properly and securely attached to the faceplate may come loose during operation, fly off, and hit the operator (faceplates are sold separately at Sears—see the list of recommended accessories for the correct part numbers.)

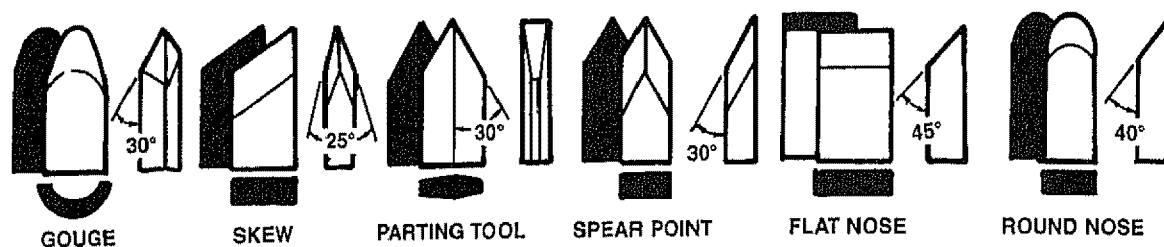
For information on how to do faceplate turning, refer to the "Power Tool Know How" books available at your Sears store. (See the list of recommended accessories for the correct part number.)

Faceplates are attached to this wood lathe by screwing them onto the threaded section of headstock spindle and up against the 3/4-16 hex nut as shown in the diagram. Do not remove the 3/4-16 hex nut from the spindle when mounting faceplates to the spindle on this model wood lathe.

SPECIAL NOTE: The instructions with your faceplate may tell you to remove the 3/4-16 hex nut from the spindle before installing your faceplate. Instead of removing the 3/4-16 hex nut, tighten the faceplate up against the nut on Model 113.228360 Wood Lathe.



turning tools



THE SIX COMMONLY USED CHISEL TYPES

A book entitled "Power Tool Know How Table Saw" is available at your nearest Sears Retail Store or Catalog Store. This book contains considerable data applicable to the wood lathe.

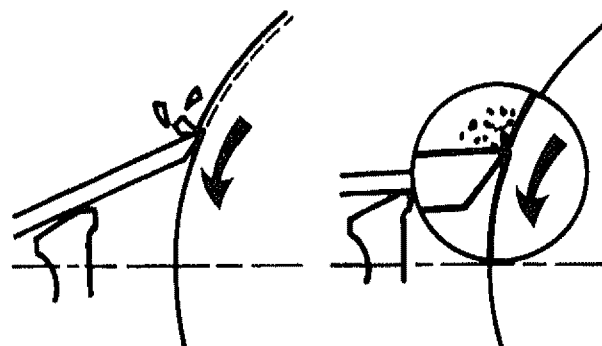
SELECTION OF CHISELS

Recommended chisels have handles approximately 10

inches long to provide plenty of grip and leverage. Sharp tools are essential for clean, safe work . . . buy tools that will take and hold clear edges. There are six commonly used chisel types. The gouge skew and parting tool are used for cutting under the surface of the workpiece. The flat nose, round nose and spear point are used for scraping.

CUTTING AND SCRAPING

When doing a cutting operation, the chisel is held at an angle so the sharp edge actually cuts below the revolving workpiece surface to peel off shavings. To do a scraping operation, the chisel is held at a right angle to the workpiece and removes fine particles instead of shavings. Many operations require that cutting chisels be used for scraping, but scraping chisels should never be used for cutting. When cutting, material is removed faster than when scraping and produces a smoother finish which requires less sanding.

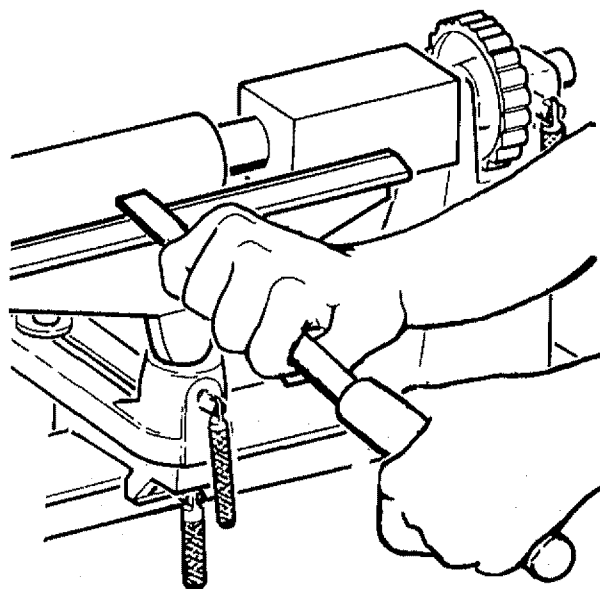


CUTTING

SCRAPING

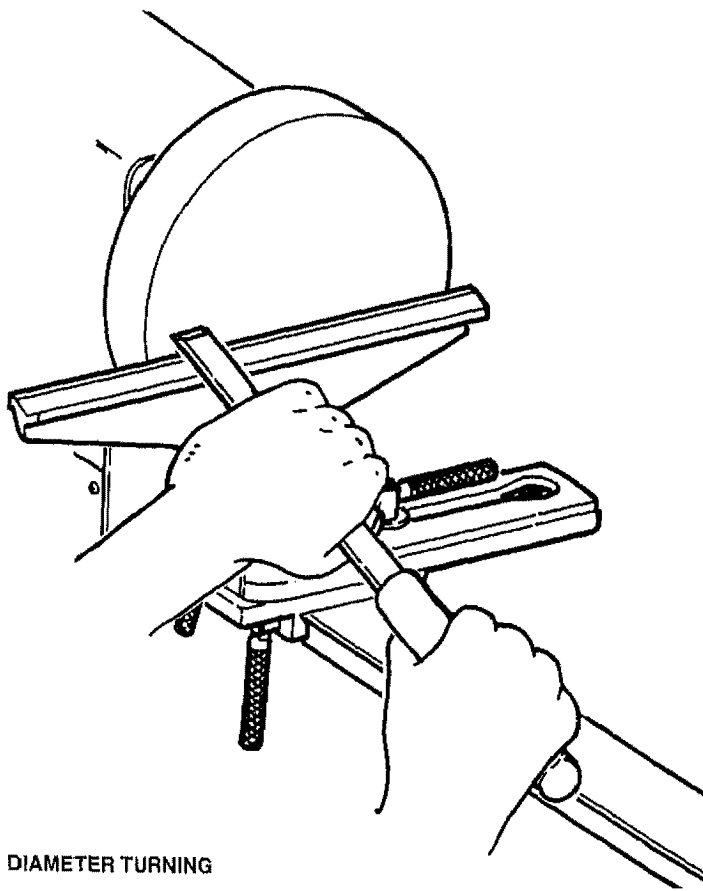
WHEN YOU CAN CUT AND WHEN YOU MUST SCRAPE

If you are removing wood from the circumference of a workpiece (for example, turning down the outer surface of a cylinder or the inner wall of a hollow round box) you may use either a cutting or a scraping action. This is true because the granular structure of the wood will allow easy removal of wood at the circumference of the workpiece in much the same way as a peeling is removed from an apple or a potato.



CIRCUMFERENCE TURNING

If you are removing wood from the diameter of a workpiece (as when turning the face of a faceplate turning) you must use a scraping action only. This is true because you are removing wood across the grain. Wood does not peel easily across the grain, and attempts to use a cutting action will result in damage to the workpiece and throwing of the chisel by the workpiece.



DIAMETER TURNING

WARNING: To avoid having the woodworking chisel torn from your hand, always work from a larger diameter toward a more narrow diameter on the wood turning and always do rough circumference cutting with the gouge chisel.

THE GOUGE

Three gouges, the 1/4-, 1/2- and 3/4-in. sizes, are ample for general homeshop turning; but other sizes from 1/8- to 2-in. can be purchased.

Always use the gouge for rough circumference turning of raw stock down to a cylinder of working size. It is the best tool to use for rapid cutting away of large areas of the workpiece. With practice, it can be used for cutting coves and the shaping of long cuts and is also useful for scraping.

THE SKEW

The skew should be used only by operators who have become proficient in the use of all other turning tools. Two skews, the 1/2- and 1-in. sizes, are all that are needed for general use. Other sizes are available. This tool is used to make finish cuts and to cut vees and beads. Properly used, it produces the best finish that can be obtained with a chisel.

WARNING: To avoid injury from a thrown workpiece, never cut all the way through a spindle turning.

THE PARTING TOOL

The parting tool has just one primary purpose: to cut straight into the workpiece as deep as desired.

THE SCRAPING CHISELS (SPEAR POINT, FLAT NOSE, AND ROUND NOSE)

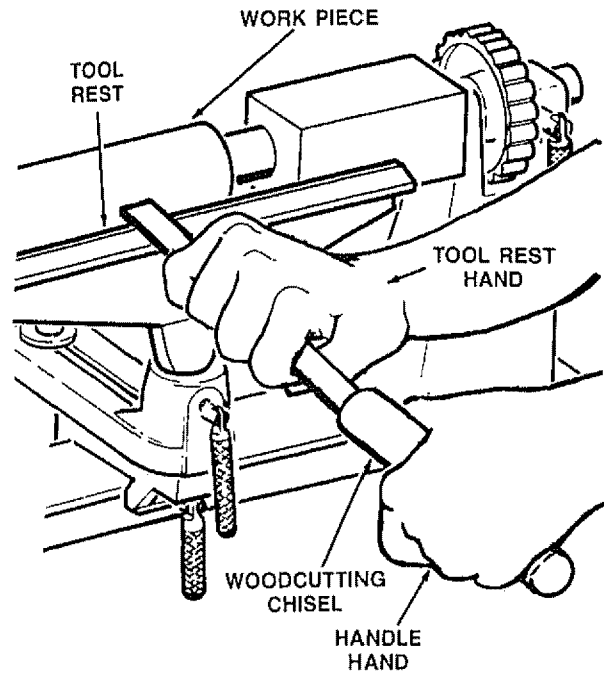
A 1/2-in. wide spear point chisel, a 1/2-in. wide round nose chisel, and a 1-in. wide flatnose chisel are very useful for diameter scraping operations and for circumference scraping, when cutting methods cannot be employed.

HOLDING THE WOODWORKING CHISEL

In handling all turning tools, the handle hand takes a natural position, being nearer or farther from the end of the handle depending on the amount of leverage required. The position of the tool rest hand should be as illustrated with turning tool held firmly against the tool rest and fingers and thumb wrapped around the turning tool on the opposite side of the tool rest, away from the rotating workpiece.

WARNING: To avoid injury from a thrown turning tool, keep firm hand grip on the tool by wrapping fingers and thumb around tool. Use both hands spaced apart for proper leverage and control.

Keep your weight balanced on your feet. Do not rest your weight on the turning tool or tool rest. Avoid awkward hand positions where a sudden slip could cause a hand to move into the workpiece.

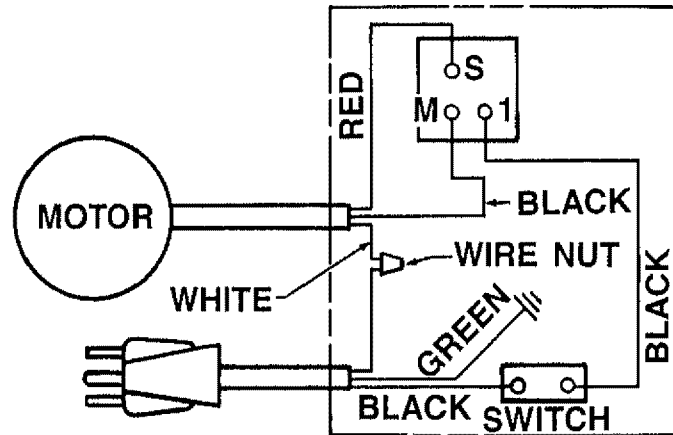


maintenance

WARNING: For your own safety, turn switch "off" and remove plug from power source outlet before maintaining or lubricating your lathe.

Apply a coat of automobile-type wax to the lathe bed to help the tool rest and tailstock move freely.

Have power cord replaced if it becomes worn or frayed.



lubrication

Periodically lubricate the ram in the tailstock with No. 20 or No. 30 engine oil.

MOTOR MAINTENANCE AND LUBRICATION

1. The bearings, in both end shields of the motor, have been lubricated at the factory with correct lubricant. No other part of the motor requires lubrication.
2. If disassembly of the motor is necessary, it should be returned to your nearest Sears retail or mail-order store in order to prevent voiding the guarantee.

NOTE: The speed of this motor cannot be regulated or changed.

3. Every effort should be made to prevent foreign material from entering the motor. When operated under conditions likely to permit accumulations of dust, dirt, or waste within the motor, a visual inspection should be made at frequent intervals. Accumulations of dry dust can usually be blown out successfully.

NOTE: Motors used on wood-working tools are particularly susceptible to the accumulation of sawdust and wood chips and should be blown out or "vacuumed" frequently to prevent interference with normal motor ventilation.

Sears recommends the following accessories

ITEM	CAT. NO
Work Bench	See Catalog
Drill Chuck 1/2" Capacity with No. 1 M.T. Shank	See Catalog
Screw Center with No. 1 M.T. Shank ..	See Catalog
Ball Bearing Center with No. 1 M.T. Shank	See Catalog
60° Center with No. 1 M.T. Shank	See Catalog
Face Plate, 4" Dia. with 3/4"-16 Thread 9 Holes	9-2489
Copy Crafter	9-24917

Sears may recommend other accessories not listed in the manual.

See your nearest Sears store for other accessories.

ITEM	CAT. NO.
Turning Tools	See Catalog
Draw Bolt with 1/4"-20 Threads	See Catalog
Power Tool Know-How Handbook	9-29114
Bowl Turning Tool Rest	9-24903
Face Plate 6" with 3/4"-16 Thread 6 holes	9-24904
Face Plate 4" dia. with 3/4"-16 Thread Cast Iron, 6 holes	See Catalog

Do not use any other accessory unless you have received and read complete instructions for its use.

trouble shooting

WARNING: For your own safety, turn switch "off" and remove plug from power source outlet before trouble shooting.

TROUBLE SHOOTING CHART

TROUBLE	PROBABLE CAUSE	REMEDY
Motor will not run.	<ol style="list-style-type: none"> Defective On-Off switch. Defective switch cord. Defective switch box receptacle. Burned out motor. Blown fuse or tripped circuit breaker 	<ol style="list-style-type: none"> Replace defective parts before using Lathe again. Consult Sears Service. Any attempt to repair this motor may create a HAZARD unless repair is done by a qualified service technician. Repair service is available at your nearest Sears store. Replace fuse or reset circuit breaker.
Lathe slows down when turning Excessive noise	<ol style="list-style-type: none"> Poly-V-Belt slipping. Pulley Lock screws loose. 	<ol style="list-style-type: none"> Adjust belt tension, see Assembly Section. Tighten lock screws. See Section "Mounting and Assembling Headstock."
Headstock loose on bed.	<ol style="list-style-type: none"> Setscrew not tight. 	<ol style="list-style-type: none"> Tighten setscrew. See Section, "Mounting and Assembling Headstock."
Wood burns at tailstock end.	<ol style="list-style-type: none"> Cup center too tight or not lubricated. 	<ol style="list-style-type: none"> Back off tailstock ram and lubricate cup center. See Basic Lathe Operation Section, "Spindle Turning."

trouble shooting

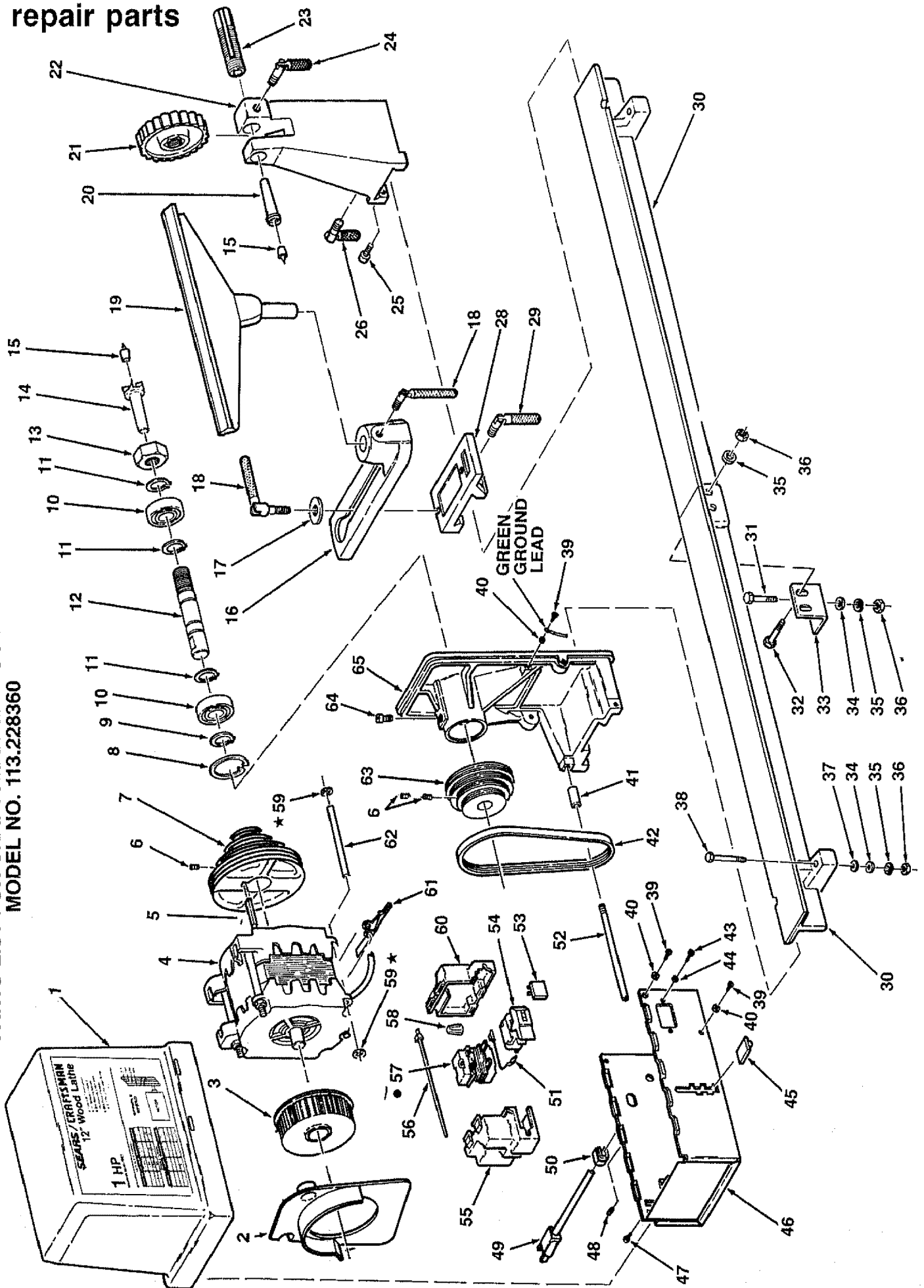
TROUBLE SHOOTING — MOTOR

NOTE: Motors used on wood-working tools are particularly susceptible to the accumulation of sawdust and wood chips and should be blown out or "vacuumed" frequently to prevent interference with normal motor ventilation and proper operation of the centrifugally-operated starting switch.

TROUBLE	PROBABLE CAUSE	REMEDY
Excessive noise.	1. Motor.	1. Have motor checked by qualified service technician. Repair service is available at your nearest Sears store.
Motor fails to develop full power. NOTE: LOW VOLTAGE: (Power output of motor decreases rapidly with decrease in voltage at motor terminals. For example, a reduction of 10% in voltage causes a reduction of 19% in maximum power output of which the motor is capable and a reduction of 20% in voltage causes a reduction of 36% in maximum power output.)	<ol style="list-style-type: none"> 1. Circuit overloaded with lights, appliances and other motors. 2. Undersize wires or circuit too long. 3. General overloading of power company facilities. 	<ol style="list-style-type: none"> 1. Do not use other appliances or motors on same circuit when using the lathe. 2. Increase wire sizes, or reduce length of wiring. See "Motor Specifications and Electrical Requirements" section. 3. Request a voltage check from the power company.
Motor starts slowly or fails to come up to full speed.	<ol style="list-style-type: none"> 1. Low voltage will not trip relay. 2. Windings burned out or open. 3. Starting motor while headstock is not in normal operating position. 4. Starting relay not operating. 	<ol style="list-style-type: none"> 1. Request voltage check from the power company. 2. Have motor repaired or replaced. 3. Place headstock in normal operating position and restart motor. If motor fails to start go to probable cause Number 4. 4. Have relay replaced.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Improper cooling. (Air circulation restricted through motor due to sawdust, accumulating inside of motor.) 	<ol style="list-style-type: none"> 1. Take shallower cuts. 2. Clean out sawdust to provide normal air circulation through motor. See "Maintenance and Lubrication" section.
Motor stalls (resulting in blown fuses or tripped circuit breakers).	<ol style="list-style-type: none"> 1. Voltage too low to permit motor to reach operating speed. 2. Fuses or circuit breakers do not have sufficient capacity. 	<ol style="list-style-type: none"> 1. Request voltage check from the power company. 2. Install proper size fuses or circuit breakers.
Frequent opening of fuses or circuit breakers.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Fuses or circuit breakers do not have sufficient capacity. 	<ol style="list-style-type: none"> 1. Take shallower cuts. 2. Install proper size fuses or circuit breakers.
Tool rest will not slide along full length of bed.	1. Bed sections are not straight and level with each other.	1. Complete instructions in section entitled "Mounting Your Wood Lathe to Workbench"

repair parts

PARTS LIST FOR CRAFTSMAN 12" WOOD LATHE MODEL NO. 113.228360



**PARTS LIST FOR CRAFTSMAN 12" WOOD LAIHE
MODEL NO. 113.228360**

Always order by Part Number—Not by Key Number

Key No.	Part No.	Description
1	507816	Cover-Motor w/Labels
2	816757	Housing-Fan
3	816775	Wheel-Turbine
4	816751	●Motor
5	STD580101	*Key-3/16 Sq. x 3/8
6	STD502503	*Screw-Soc. Set 1/4-20 x 3/8
7	816575	Pulley-Motor
8	38884	Ring-Retaining
9	805645-5	Ring Retaining Bowed
10	816868	Bearing-Ball
11	STD580275	*Ring-Retaining 3/4
12	816565	Spindle
13	816989	Nut-Hex 3/4-16
14	816569	Center-Spur
15	56619	Center-Point
16	816586	Holder-Tool Rest
17	STD551037	*Washer-.380 x 1-9/64 x 7/64
18	816992	Clamp-Bolt
19	70016	Rest-12" Tool
20	816570	Center-Cup
21	816578	Handwheel
22	816581	Stock-Tail
23	816564	Spindle-Tail Stock
24	816991	Clamp-Bolt
25	141594-42	Screw-Hex Soc. HD. Cap 10-32 x 1
26	816990	Clamp-Bolt
28	816567	Slide-Tool Rest
29	816990-2	Clamp-Bolt
30	816579	Bed-Machined
31	STD522515	*Screw-Hex. HD. 1/4-20 x 1 1/2
32	STD522510	*Screw-Hex. 1/4-20 x 1 1/2
33	816552	Bracket-Bed Center Mtg.
34	9414920	Washer 17/64 x 5/8 x 1/16
35	STD551125	*Lockwasher-1/4
36	STD541025	*Nut-Hex 1/4

Key No.	Part No.	Description
37	9414920	Washer 17/64 x 5/8 x 1/16
38	STD522525	*Screw-Hex HD. 1/4-20 x 2-1/2
39	STD510803	*Screw-Pan HD. #10-32 x 3/8
40	STD551210	*Lockwasher #10
41	802392-41	Spacer
42	816439	Belt-Poly V "J" 14
43	STD510607	*Screw-Pan HD. 6-32 x 3/4
44	STD551206	*Lockwasher Ext. #6
45	816831	Knob-Tension Lever
46	507817	Housing-w/Labels
47	STD610603	*Screw-Ty. B #6 x 3/8
48	60227	Screw-Soc. Set 5/16-18 x 1 1/4
49	816573-1	Cord w/Plug
50	69164	Relief-Strain
51	816560	Lead-Jumper
52	816825	Screw-Motor Pivot
53	815863	Key-Switch
54	816566	Switch-Locking
55	816945	Box-Switch R.H.
56	817134-4	Tie Cable
57	817157	●Relay
58	803709	Connector-Wire
59	802955-7	★Nut-Push 1/4
60	816946	Box-Switch L.H.
61	816758	Lever-Tension
62	816759	Rod-Motor Pivot
63	816572	Pulley-Spindle
64	STD503105	*Screw Cone Pt. 5/16-18 x 1/2
65	816591	Head-Stock
—	SP5110	Owner's Manual (Not Illustrated)
—	507635	Bag of Loose Parts (Not Illustrated)
—	507743	Bag of Loose Parts (Not Illustrated)

* Standard Hardware Item — May Be Purchased Locally.

★ If this part is removed, discard and replace with a new Push Nut.

● Relay must accompany motor when motor is returned for service. Any attempt to repair this motor may create a hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears Store.

repair parts

SEARS

**owner's
manual**

SERVICE

**MODEL NO.
113.228360**

WOOD LATHE

**HOW TO ORDER
REPAIR PARTS**

**IF YOU NEED REPAIR
SERVICE OR PARTS:**

For Repair Service, Call
this Toll Free Number:
**1-800-4-REPAIR
(1-800-473-7247)**

For Replacement Parts
Information and Ordering,
Call this Toll Free Number:
**1-800-FON-PART
(1-800-366-7278)**

12-INCH WOOD LATHE

Now that you have purchased your 12-inch Wood Lathe should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. Be sure to provide all pertinent facts when you call or visit.

The model number of your 12-Inch Wood Lathe will be found on a plate on the backside of the headstock.

**WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING
INFORMATION:**

PART NUMBER	PART DESCRIPTION
MODEL NUMBER 113.228360	NAME OF ITEM 12-INCH WOOD LATHE

All parts listed may be ordered from any Sears Service Center and most Sears stores. If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.