SOUTH BEND LATHE

CE3458 PARTS MANUAL

10", 13", 14 1/2", 16" AND 16/24" LATHES

INSTALLATION, OPERATION

MAINTENANCE & PARTS MANUAL

South Bend Lathe Corp.

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12/1995

COST - $75.-

WARNING

IMPORTANT SAFETY INFORMATION

) IT SHALL BE THE RESPONSIBILITY OF THE END USER TO PROVIDE, AND ENSURE THE USE OF, A GUARD, GUARDING DEVICE, AWARENESS BARRIER, AWARENESS DEVICE, OR SHIELD...

) DO NOT OPERATE LATHE AT A HIGHER SPEED THAN WHAT THE CHUCK MANUFACTURER RECOMMENDS.

) NEVER PLACE ANY PART OF YOUR BODY NEAR MOVING PARTS OF THIS MACHINE.

) NEVER WEAR LOOSE CLOTHING THAT COULD BECOME CAUGHT OR TANGLED IN THE MOVING PARTS OF THE MACHINE.

) NEVER OPERATE OR MAINTAIN THIS MACHINE WITHOUT PROPER INSTRUCTIONS OR SUPERVISION, WEAR SAFETY GLASSES & SAFETY SHOES.

) STOP SPINDLE COMPLETELY BEFORE CHANGING OR ADJUSTING THE WORKPIECE FIXTURES OR TOOL.

LECTRICAL CONNECTION: MACHINE MUST BE INSTALLED BY ROFESSIONAL ELECTRICIAN TO VERIFY THE PROPER VOLTAGE.

12/1995

SPECIAL INFORMATION

FORM 1038
ALL MODELS

CARE OF MACHINE TOOLS THAT ARE NOT IN USE

When a machine is taken out of service, such as in a school where they would not be used during the summer months or at some other vacation or off period, it should be properly taken care of as follows:

1. Thoroughly clean the machine, being sure that all surfaces are cleaned. It is as important to clean the painted surfaces as well as the machined surfaces. The machine should be cleaned with some type of solvent if the machine has accumulated hard to remove deposits. If all deposits are not removed and a protective coating is applied, it will make the machine doubly hard to clean when the machine is put back into service. A neutralizing agent should be used where finger printing is common or where the climate is very damp.

2. After the machine has been thoroughly cleaned all of the machined surfaces should be covered with either a good grade of medium weight MACHINE OIL (NOT AUTO ENGINE OIL) or if the machine is going to be out of service for a long period of time a light weight grease (commercial petroleum jelly that has been thinned with naptha or mineral spirits is very good) should be used. When covering the machine surfaces care should be taken so that the machined surfaces are completely covered. Also you should try and keep the oil and grease off the painted surfaces.

3. If the machine has belts of any type, they should be loosened, so that they will not stretch while the machine is not in use.

4. All power to the machine should be disconnected. Some machines could be very easily damaged if run after being out of service for a long period of time.

5. The machine should be covered witha cover that will keep dust and dirt from accumulating on it. Also the cover should be liquid repellent to keep any liquid from coming into contact with the working parts of the machine. Such a cover is listed in our General Catalog. These covers are available for all sizes and types of machines that we manufacture.

MAINTENANCE

FORM 2000
10" & 14 1/2" MODELS

BACK GEAR AND ECCENTRIC SHAFT
10" and 14½" lathes only

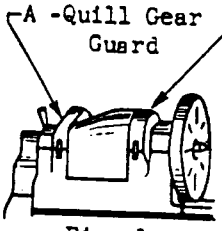

Fig. 1

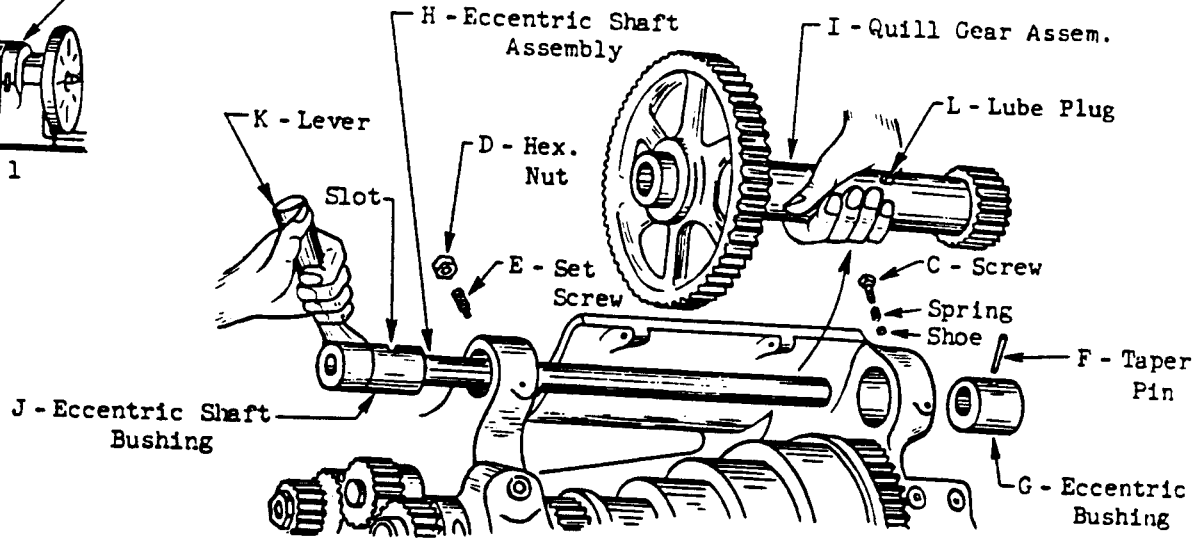

Fig. 2

I. TO DISASSEMBLE:

1. Remove items "A" and "B" (Fig. 1).
2. Loosen screw "C" (Fig. 2).
3. Remove items "D" thru "I" (Fig. 2) in alphabetical order.

II. TO REASSEMBLE:

1. Replace items "H" and "I". (Be sure gears are free of dirt, chips, and nicks.)
2. Replace item "G" and pin with item "F".
3. Replace item "E", locating the point of the screw in slot of eccentric shaft bushing "J" and replace nut "D".

III. ADJUSTING BACK GEARS:

1. Engage back gears using eccentric shaft lever "K" and allow mating gears to bottom. Then back off back gears until you feel a slight rock between mating gears and tighten set screw "E". Tighten screw "C" so tension on bushing "G" is enough to hold gears in mesh on heavy cuts, but not so tight that the eccentric shaft lever "K" is hard to operate. Make final adjustment by allowing lathe to run for a few minutes. If there is an abnormal amount of noise such as a gear rattling noise the gear clearance is too great, adjust by slightly unscrewing set screw "E". If it seems to be a howling noise, the gear clearance is insufficient. Adjust by screwing in slightly set screw "E". When proper gear clearance is obtained, lock set screw "E" with nut "D".

IV. OILING

1. Remove plug "L" and fill teflon grease. Use our CE1625 or equal.

MAINTENANCE

FORM 2001
13", 16" & 16/24"

BACK GEAR AND ECCENTRIC SHAFT
13", 16" AND 16/24" LATHES ONLY

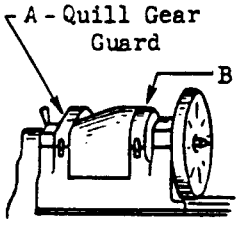

Fig. 1

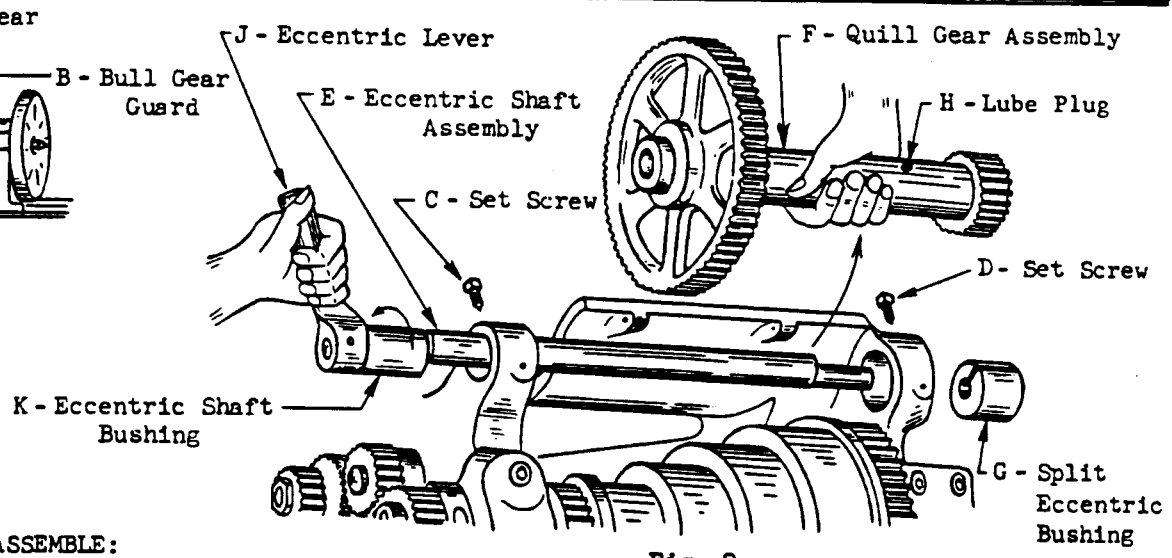

Fig. 2

I. TO DISASSEMBLE:

1. Remove items "A" and "B" (Fig. 1)

2. Remove items "C" thru "G" (Fig. 2) in alphabetical order.

II. TO REASSEMBLE:

1. Replace items "E" and "F". (Be sure gears are free of dirt, chips, and nicks.)

2. Slip in item "G" with countersunk spot in line with hole for set screw "D".

3. Replace screws "C" and "D" and finger tighten until points of screws are located in bushing countersunk spots.

4. Tighten set screw "C" firmly.

5. Tighten set screw "D" so tension on bushing is tight enough to hold gears in mesh on heavy cuts, but not so tight that the eccentric shaft lever "J" is hard to operate.

III. OILING:

1. Remove oil plug "H" (Fig. 2) and fill with teflon grease, our CE1625 or equal.

IV. INSTALLING NEW ECCENTRIC SHAFT ASSEMBLY:

1. Disassemble per instructions under sub-heading I.

2. Reassemble according to *instructions under sub-heading II, but do not tighten* set screw "C".

3. Engage back gears using eccentric shaft lever "J" and allow mating gears to bottom. Then back off back gears until you feel a slight rock between mating gears. IMPORTANT - Turn eccentric shaft bushing in direction as shown above (↶) until pin is against stop. Tighten set screw "C" enough to make an impression on bushing "K".