

DEMCO

QUALITY & DEPENDABILITY YOU CAN TRUST

HIGH SPEED POLISHER GRINDERS

Please Read All
Instructions Before
Operating



Variable-Speed Lathe for Multi-Use Operations



2-Speed Lathe for Routine Operations

Owner's Manual

SAFETY FIRST!

Your DEMCO Polisher/Grinder is designed with your safety in mind. However, as with all power equipment, an adherence to standard precautionary safety procedures will protect the operator from possible injury.

RULES FOR SAFE OPERATION

POWER SUPPLY

The Polisher/Grinder is equipped with a three pronged electrical plug intended for a grounded three hole receptacle. If an adapter is used to accommodate a two pronged receptacle, the adapter wire must be attached to a know ground.

EYE PROTECTION

Always wear safety glasses or an eye shield while operating the grinder. Eyesight is precious! As with any power tool, there is always a possibility of foreign objects being thrown into the eye.

FUSE REPLACEMENT & BOTTOM COVER PLATE REMOVAL (All Models)

Unplug the electric cord before attempting any service with the bottom cover plate removed. Regardless of the control setting, "on" or "off", a **shock hazard** exists at the fuse location if the cord is left plugged in.

BELT GUARD

The belt guard must be in place while the polisher/grinder is in operation.

BRUSH REPLACEMENT (Model B-1)

Unplug the electric cord when servicing the brushes to prevent electrical shock.

WEAR PROPER APPAREL

Loose clothing, jewelry, ties, ribbons, etc. can get caught in any machinery. Play it safe and dress properly.

TURN GRINDER "OFF" AFTER COMPLETION OF WORK

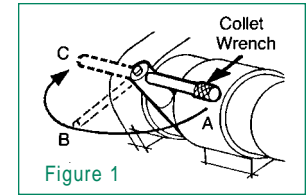
This is good practice with all power equipment.

OPERATION & MAINTENANCE

SPINDLE OPERATION (Figure 1)

To open the collet, move the lever in figure 1 to the extreme left. Always operate the clutch and brake slowly and smoothly. Insert mandrel into the collet and move the lever to the right.

Caution: Never close collet without having a mandrel or similar tool inserted. Spindle will bind if lever is in position "A" without a mandrel in the collet.

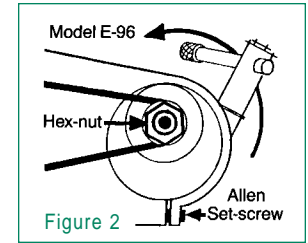


To stop the mandrel, apply the brake by positioning the lever to the left. Once the mandrel stops, stones and points can be removed and replaced. DO NOT apply the brake too quickly, since mandrels may unscrew, causing needless wear. By loosening the set screw, the handle may be adjusted to the most comfortable operating position.

COLLET ADJUSTMENT (Figure 2)

If mandrel is loose when in the operating position, adjustment of the collet may be necessary.

- 1) Open the collet (position "C").
- 2) Remove collet wrench from the end of the lever.
- 3) Place collet wrench in the collet and turn counterclockwise to loosen. Remove the collet.
- 4) Insert the hex wrench through the spindle nose.
- 5) Turn hex wrench counterclockwise to loosen, clockwise to tighten.
- 6) Reinstall the collet.



Note: If this procedure does not tighten the collet, replacement of the collet may be necessary. Replacement collets may be purchased from CMP Industries, Inc.

SPINDLE FAILURE

Caution: Spindle will not run without tool or mandrel inserted in collet. Always check the collet first!

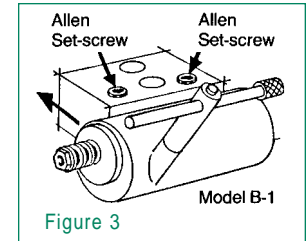
- 1) The collet must be clean.
- 2) Make sure the collet is not rusty and that it is lightly lubricated.
- 3) The collet must be screwed all the way in, with the clutch lever in position "C".
- 4) Check to see if the collet is worn out. If it is, replace it.
- 5) If the spindle binds, it is usually the fault of the collet. (It is advisable to have a new collet on hand at all times.)

Should the spindle become noisy or otherwise faulty, contact CMP Industries, Inc. We reserve the right to make a full charge for repairs if the unit returned is received in a tampered condition.

SPINDLE LUBRICATION

Once a day, open the collet and unscrew it, using the collet wrench with lever in position "C". Clean out all grit, and apply a light film of oil on collet only. This is the only area to be oiled! DO NOT OVER-OIL or attempt to oil any other part of the spindle. With the clutch lever still in position "C", replace the collet, making sure the collet is screwed in all the way.

Note: Use small adjustment screw in back of collet for proper adjustment.



PULLEY REPLACEMENT (Figure 2)

Insert hexagon wrench into hexagonal hole at end of the shaft, to keep it from turning. Unscrew nut and pull off old pulley. Replace with a new pulley and then replace nut.

BELT REPLACEMENT (Figures 2 & 3)

MODEL E-96: Refer to figure 2. Loosen set screw. Rotate spindle by pushing handle forward to relieve belt tension. Remove belt.

MODEL B-1: Refer to figure 3. Loosen 2 set screws. Push spindle inward to relieve belt tension. Remove belt. When replacing belt, refer to "PROPER CARE OF MOTOR PULLEY & SPINDLE PULLEY".

PROPER CARE OF MOTOR PULLEY & SPINDLE PULLEY

It is imperative that the belt tension be correct to assure a long life for pulley and bearings. To set belt tension, loosen set screw(s) (see "BELT REPLACEMENT"). Align the motor pulley with the spindle pulley by using a straight edge. Then move the spindle towards you by rotating (Model E-96), or sliding (Model B-1). **Adjust tension to allow approximately 3/8" play in the belt.** This procedure should be repeated as the new belt stretches. It is very important that this be done to avoid costly repairs! If not, it will cause unnecessary wear on belts, motor pulley and spindle pulley. Motor pulleys and spindle pulleys should be replaced when the flat on the "double V" becomes pointed, to avoid damage to new belts. Never run a "double V" belt on a "single V" pulley. However, a "single V" belt can be run on a "double V" pulley without incurring any damage. **SET SCREW ON MOTOR PULLEY "MUST" BE TIGHT!**

DRIVE MOTOR LUBRICATION (Model E-96 Only)

Older Model E-96 motors have oil caps. After 2 years of normal operation, add 1/2 teaspoon of S.A.E. motor oil to each oil cap on the drive motor. Repeat annually thereafter. Newer Model E-96 and Model B-1 motors have sealed, pre-lubricated bearings and DO NOT require oil.

A NOTE OF CAUTION

The bulbs used are 12 volt bulbs wired in series. A 115-volt to 24-volt transformer is used to supply power to them. There is a similar 6-volt bulb used for high-intensity lamps and some laboratories have used them by mistake. **Result: A burned-out transformer! USE TYPE 1143 or GE-1073, 12 VOLT BULBS ONLY!**

WARRANTY POLICY

Your new DEMCO Polisher/Grinder is warranted to be free of defects in material and workmanship for a period of one year from time of purchase, as to the motor, base and drive assembly only. The high-speed, fully automatic spindle assembly is warranted to be free from defects in material and workmanship for 90 days from the date of such purchase. This warranty is limited to the following: 1) CMP Industries, Inc. will, without charge, repair or replace the defective part, provided the unit is returned to us during the warranty period, all shipping charges "prepaid" by the customer. This warranty does not cover items other than the motor, base, drive assembly and high-speed, fully automatic spindle assembly; 2) In order for this warranty to be effective, the owners warranty registration form supplied with each unit must be mailed "postage prepaid" to the manufacturer, CMP Industries, Inc., within 10 days; 3) CMP Industries, Inc. is not responsible for damage, service problems or malfunctions resulting from misuse, negligence, alteration, accident, fire, improper repair of the unit by persons other than the manufacturer and failure to follow any recommended maintenance requirements.



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