GENERAL
Read these instructions through carefully to avoid personal injury or damage to the machine. Conditions required to create a possible hazard in CK-10, CV-616, and SV-10 and methods for avoiding injury or damage are as follows:

CONDITIONS
There is a certain set of conditions that can occur in the CK-10, CV-616, and SV-10 Vertical Honing Machines in which the machine may jam due to improper operation. This would create a possible hazard to the operator if he were to actuate the Drive Arm Lift Lever.

This possible hazard can be created if the honing tool jams tightly into the bore being honed while on the down stroke. The honing tool could jam tight enough to stop the stroking motion of the drive arm which would cause the clutching belt to slip.

The operator should turn the honing machine off by the emergency stop button when the jam-up occurs.

The overload protective device built into the connecting Link Assembly may be in the extended position with its overload spring compressed (see Figure 1).

With the overload protective device in its extended position with the machine turned off, a hazardous condition may be present.

If the operator would attempt to lift the Drive Arm Lift Lever just enough to unlock the over-center lock down position of the Lift Lever, the Lever may move or snap rapidly upward and with considerable force, through a distance of up to seven inches of arc travel, depending on how far the overload protective device was extended.

SHOULD JAM-UP OCCUR
If the jam-up should occur, either from improper setup of the machine or from incorrect use of the machine by the operator, the following steps should be followed:

1. Immediately turn machine off with emergency stop button.
2. Open right hand side guard door so that overload protective device can be seen.
3. If the overload protective device is in its extended position with its overload spring compressed and yoke blocks separated (refer to Figure 1), then slowly rotate Cradle Elevating Handle counterclockwise to lower the cradle and workpiece (see Figure 2), thereby allowing the overload protective device to reset itself to normal position with its two yoke blocks firmly together.

As the cradle is lowered, the drive arm and jammed honing tool will also move downward.

Do not lower the cradle any further than that distance necessary to permit the two yoke blocks of the overload protective device to come together. The movement of the two yoke blocks can be observed through the right hand guard door opening.
4. Attempt to release the honing head or honing tool by applying only a light to moderate retracting force to the Feed Handwheel (see Figure 3). Retract handwheel by turning counterclockwise when viewed from the top. Do not apply excessive force to the Feed Handwheel as the internal feed gears may be damaged.

If honing tool becomes free in the bore, then cautiously raise Drive Arm Lift Lever to lift honing tool out of the bore and inspect tool for damage.

5. If the feed system of the honing head or honing tool has been damaged, the operator will not be able to free the tool by retracting the Feed Handwheel.

In this case only, after the cradle has been lowered to release the tension of the overload device (see Figure 4), remove the set screw that secures the Lower Drive Tube to the Upper Drive Tube and slowly raise the Drive Arm Lift Lever to disengage the two drive tubes.

**CAUTION**

As the two drive tubes become disengaged, hold or support the lower drive tube to keep it from falling to one side and causing other damage.

If a CK or CV type honing head is being used, rotate the Lower Feed Rod inside the Lower Drive Tube three or four turns in a clockwise direction, (viewed from top of drive tube) and gently tap downward on the end of the Lower Feed Rod to free the honing head from the workpiece. This action releases the wedge from the push pins in the honing head (may need to be repeated two or three times).

If a CV-1000 Mandrel Adapter Unit is being used, disconnect Adapter Unit from the mandrel and then remove mandrel from workpiece in manner required by degree of damage found.

If a DH-Tool is being used, disconnect Adapter Unit from the tool and then remove tool from workpiece in manner required by degree of damage found.