

---

**DO NOT REMOVE THIS NOTICE**

**WARNING:** This machine is potentially dangerous and could cause serious injury or death.

- Read, obey and understand all operating instructions.
- Wear eye protection and other appropriate safety items.
- Never climb, walk or stand on machine.
- Inspect machine before operating, making sure all guards are in place and in good condition.
- Operate within rated machine capacity.
- Do not remove hopper or guards while machine is in operation.
- Keep clear of all moving parts.
- Never try to clear hopper with stick or other tools while machine is on.
- Do not put hands or other body parts inside machine or any moving part or pinch point.
- Use extreme caution when around machine and controls.
- Keep machine clean and properly maintained.
- Stop machine immediately at any sign of malfunction or danger.
- Use electrical lockouts when servicing and/or when machine is not in use.
- Only authorized personnel should operate this machine.

**WARNING: THIS MACHINE IS POTENTIALLY DANGEROUS AND COULD CAUSE SERIOUS INJURY OR DEATH.**

**DO NOT REMOVE THIS NOTICE**

---

## ADDITIONAL WARNINGS

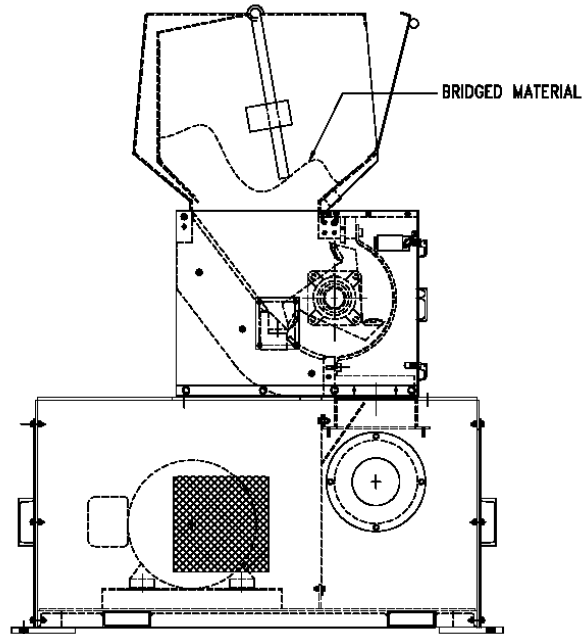
**NEVER** OPERATE GRANULATOR SYSTEM WITHOUT BOTH ACCESS PANELS IN PLACE.

**NEVER** OPERATE GRANULATOR SYSTEM WITHOUT STUB SHAFT GUARD AND GUARD FOR DRIVE IN PLACE.

**NEVER** OPERATE GRANULATOR SYSTEM WITHOUT INFEED CHUTE BOLTED INTO PLACE.

**NEVER** OPERATE GRANULATOR SYSTEM WITHOUT CLEAN OUT DOOR IN PLACE.

**NEVER** REACH INTO INFEED CHUTE OR USE AN OBJECT TO REACH INTO THE CHUTE WHILE GRANULATOR SYSTEM IS RUNNING. IF "BRIDGING" OCCURS (SEE DEFINITION AND SKETCH BELOW), SHUT DOWN GRANULATOR SYSTEM COMPLETELY AND REMOVE THE BRIDGE.



**BRIDGE/BRIDGING:** OCCURS WHEN MATERIAL BLOCKS ITS OWN FLOW AND DOES NOT FALL INTO THE CUTTING CHAMBER.

## MAINTENANCE DATA

The JRS / Mitts & Merrill granulator requires very little maintenance. Periodic inspections, however, will prove to be advantageous.

The following is recommended as a guideline for maintenance:

### A. KNIVES

- Inspect knives periodically for sharpness and proper setting. The time interval for these inspections will depend on the operating time of the Granulator and the type of material being reduced.
- Insure that knife screws are properly tightened. Recommended torque in foot-pounds is as follows:

KNIFE SCREWS FOR:	8 X 10 GRANULATOR	10 X 12 GRANULATOR	14 X 20 / 16 X 35 GRANULATOR
ROTOR KNIFE	85 – 100 *	100 – 125	100 – 125
BED KNIFE	45 – 55	100 – 125	100 – 125

### B. LUBRICATION

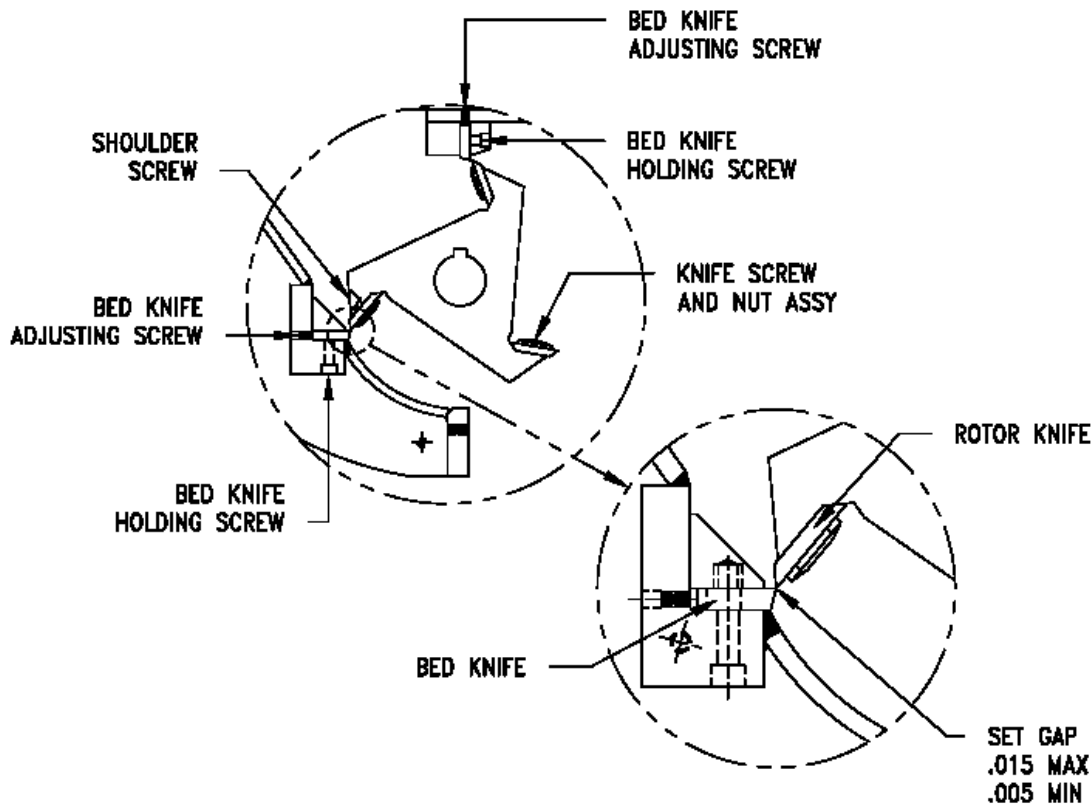
- These bearings have been greased: no additional lubricant is necessary to start. Re-grease at intervals suggested in Table 1. Add grease slowly with shaft revolving until grease comes rapidly out of pressure relief hole in grease fitting. Use caution when using high pressure high-volume gun.
- Granulators GM-7384 and up, recommended torque is 45-55 foot-pounds.

**TABLE 1  
GREASE LUBRICATION**

OPERATING	CONDITION	BEARING OPERATING TEMP.	GREASING INTERVAL	USE GREASE EQUIVALENT TO THESE GRADES
DIRT	MOISTURE	32°F - 120°F	6-12 MONTHS	PHILLIPS  PETROLEUM CO.  PHILADE 1B & RB
DIRT	MOISTURE	120°F - 160°F	6-12 MONTHS	MASTER LUBRICANTS CO. LUBRIKO M-21
DIRT	MOISTURE	160°F - 200°F	1-2 MONTHS	IMPERIAL OIL LT'D ANKOK 280
FAIRLY CLEAN	NONE		1-4 WEEKS	

## INSTRUCTIONS FOR SETTING KNIVES

**IMPORTANT: ALL GRANULATOR KNIFE SETTINGS SHOULD BE CHECKED AND RESET AFTER AN INITIAL 24 HOUR BREAK IN PERIOD**



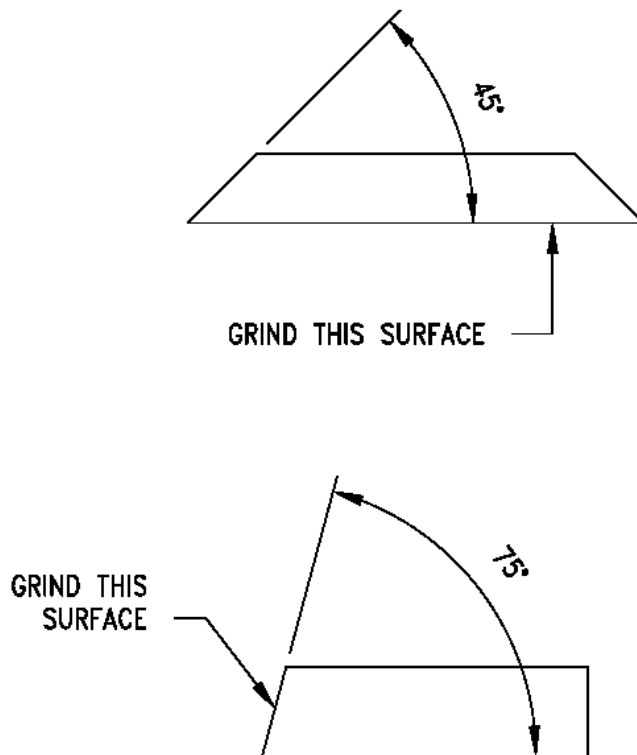
### SETTING ROTOR KNIVES:

With all mating surfaces free of foreign particles, position rotor knives toward center of rotor – against shoulder screw. Tighten shoulder screws as noted on maintenance data sheet.

### SETTING BED KNIVES

1. Back off of adjusting screws to allow sufficient clearance between knives.
2. place bed knife into position after insuring that all mating surfaces are free of foreign particles. Tighten holding screws into position – do not torque at this time.
3. Move bed knife out to desired clearance by tightening adjusting screws.
4. Torque holding screws as noted in maintenance data sheet.

## KNIFE SHARPENING



### KNIFE SHARPENING NOTES:

1. Do not draw temper when grinding.
2. Cutting edges must be perpendicular with knife sides
3. Grind on flat side of wheel – DO NOT HOLLOW GRIND.

---

## BELT CARE AND TENSIONING

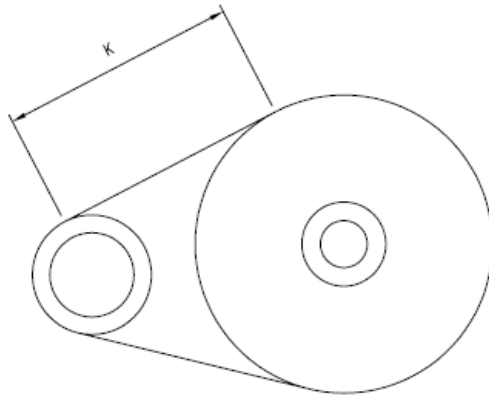
### TENSIONING A DRIVE

General Rules of Tensioning:

- A. Ideal tension is the lowest tension at which the belt will not slip under peak load conditions.
- B. Check tension after sixteen (16) hours and again after fifty (50) hours of initial operation.
- C. Over-tensioning shortens belt and bearing life.
- D. Keep belts free from foreign material which may cause slip.
- E. Make V-drive inspection on a periodic basis. Tension when slipping. Never apply belt dressing as this will damage the belt and cause early failure.

### TENSIONING PROCEDURE

- A. Measure the span length, K. Center to Center of Pulley



- B. At the center of the span (K) apply a force (perpendicular to the span), large enough to deflect the belt 1/64" for every inch of span length.

EXAMPLE: The deflection of a 34-inch span would be  $34/64$  or  $17/32$  inch.

A V-belt tension tester is a good tool to have for easy checking of belt tension. Scales are provided for reading both the required force and the distance of belt deflection.