FLAT BELT DRIVE INSTALLATION

1. Remove motor from jointer-planer by loosening the three hex head mounting screws that fasten it to the side casting and rotating it upwards. Remove and discard round belt.

2. Pry black plastic pulley from motor shaft using two screwdrivers. Discard. Install large aluminum flat belt pulley provided in kit, (1). Secure pulley to motor shaft with an M6x20 screw and the existing washer.

3. Remove idler pulley assembly from machine. Discard.

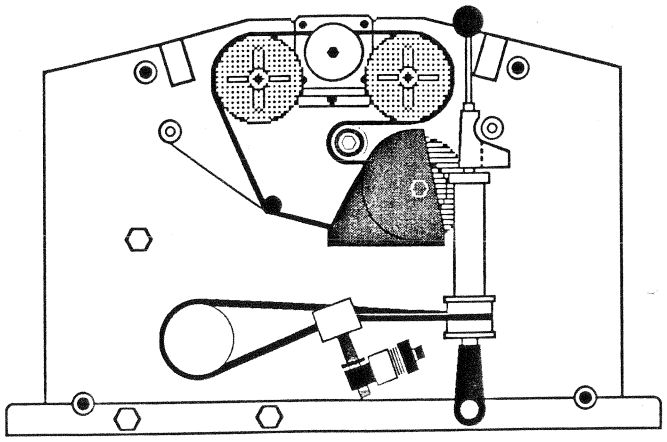
4. Loosen locknut, (2b), on threaded shaft of new idler pulley assembly, (2). Mount new idler assembly as shown, inserting the M6 allen head screw, (8), through the existing M8 hole from the inside of the machine. The idler pulley assembly should be angled toward the motor. Pulley should snap tightly against side of machine.

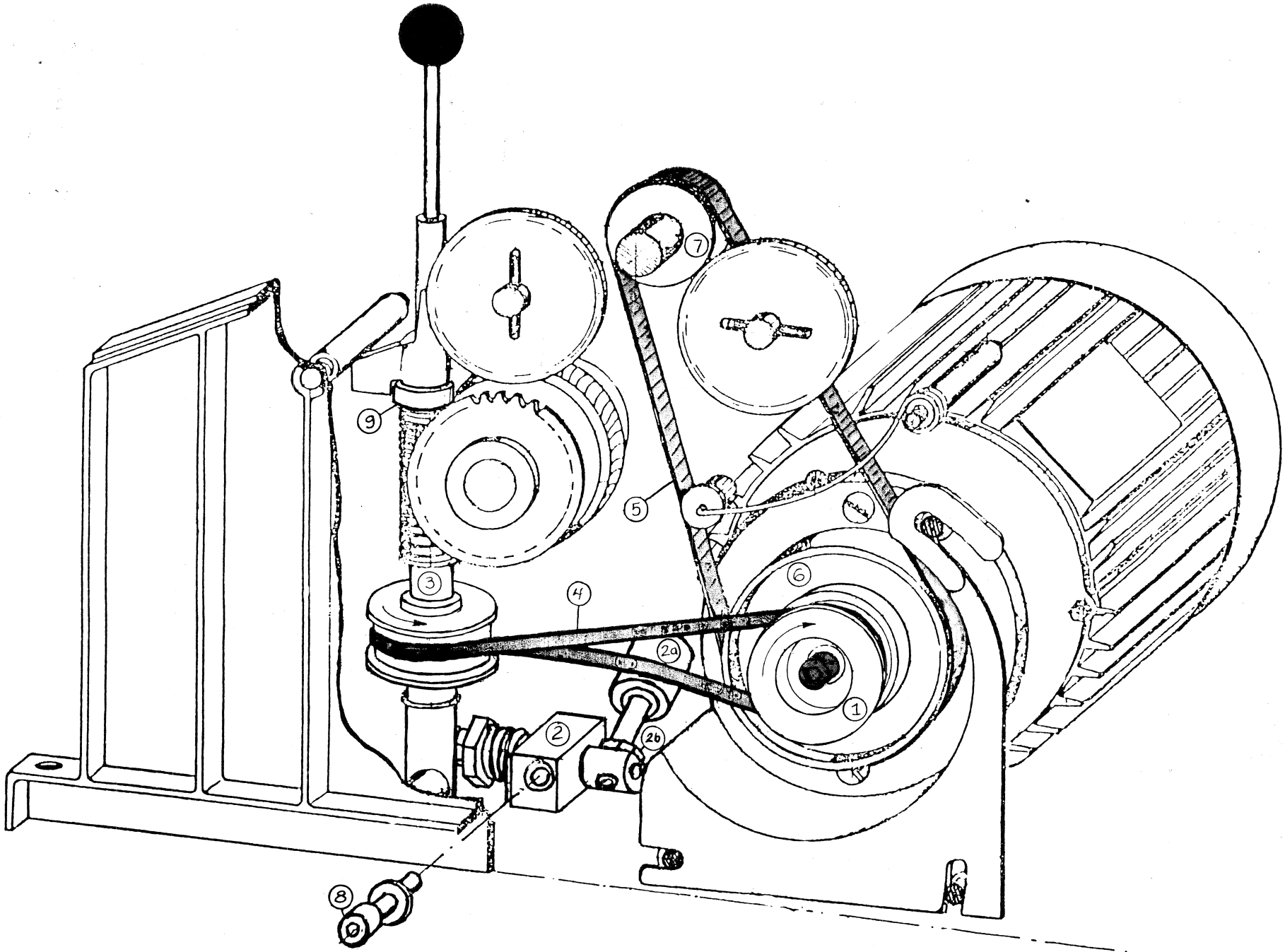
5. Remove existing worm gear assembly by unfastening screw at pivot point. Discard. Install new worm assembly, (3). Place new flat feed belt, (4), around worm gear pulley and set worm shaft at speed two (against small black gear).

6. Mount flat cutterhead drive belt, (5), on motor pulley, (6). Place motor flange on mounting screws. Place flat feed belt, (4), on new motor pulley in direction shown in drawing. Mount flat cutterhead drive belt, (5), on arbor pulley, (7). Tension cutterhead drive belt by pivoting motor downwards in a counter clockwise direction. Tighten mounting screws. Do not overtension belt.

7. Swing out idler pulley, (2a), and mount flat feed belt as shown. Rotate arbor pulley by hand to make certain that belt tracks on pulley at both feeding speeds. Shift gears once or twice to make certain that the pulley does not contact the motor flange when changing speeds. It may be nescessary to raise or lower the idler pulley by threading its shaft up or down to find the position where belt tracks properly. Make sure that the belt does not contact the pulleys' rims when running. When belt tracks well, tighten locking nut on pulley shaft. Make sure that the belts and pulleys are free of grease. (Denatured alchohol is a good degreaser). Replace cover on machine and test. Re-adjust if belt falls off idler or if idler touches motor when changing speeds.

8. Make sure that the grease wells in the center of each black gear are kept filled. Also, the needle bearings, (9), in the cup at the top of the worm shaft must be kept greased. A tube of lithium grease was supplied with your machine for this purpose.

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2a
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Maintenance of Model 570 Dual Flat Belt Drive Jointer Planers

The Owner's Manual for this machine indicates that the needle bearings on the worm gear and the wheels need greasing from time to time.

To clarify this, we recommend that these parts be checked for lubrication on the following intervals:

Light Planing (hobbyists using on weekends)
Check every three months

Moderate Planing
Check Monthly

Heavy Planing
(professional or daily use)
Check every week

Lubrication may not be required every time you check, however, it is wise to check the drive train at these intervals to be sure.

How And What to Check
Unplug the machine and remove the gear cover. You must unscrew the shift stick first, of course.

The first part to check is the pinion gear (#1 in the illustration at right). This gear has two levels, one for high and one for low feed speed. In the center of each level there is a shallow "well" that runs around the circumference of the gear. This should have grease in it, and the grease should appear cream to dark grey in color.

If there is no or only very little grease in the well, it needs to be replenished. If the grease appears very dark grey or black in color, new grease should be applied.

Use white "lithium" grease, which is generally available in auto parts stores and well stocked hardware stores. Only fill the "wells" and be sure not to use too much grease. Too much is as bad as too little, as the grease may splash onto the belts.

The second part to check is the needle bearing (#2) on the top of the worm gear. This is located at the top of the worm gear, between it and the metal casting that the speed change lever screws into.

Pull the worm gear away from the pinion gears and slide the worm down to expose the needle bearing. It looks like a series of small metal rods lying down (radially) around the shaft. Metal washers may be covering them, which can be lifted with your finger or pocket knife.

Check that there are no empty spaces in the needle bearing and that there is grease present. If more grease is required, use the same lithium grease. If there are empty spaces, indicating that some of the needles have come out, order a replacement needle bearing # 58.53.2764.

Note: When cleaning the machine and gear train, especially with a vacuum or compressor, always hold the worm tight up against the roller bearing so as not to "blow away" any of the small rollers.

Next, wipe the feed drive chain (#3) with a very small amount of grease on a rag - use grease very sparingly on the chain.

In addition to this routine maintenance, the needle bearings inside the worm gear (#5) should be checked periodically, once a year for light to moderate planing, once every six months for heavy use.

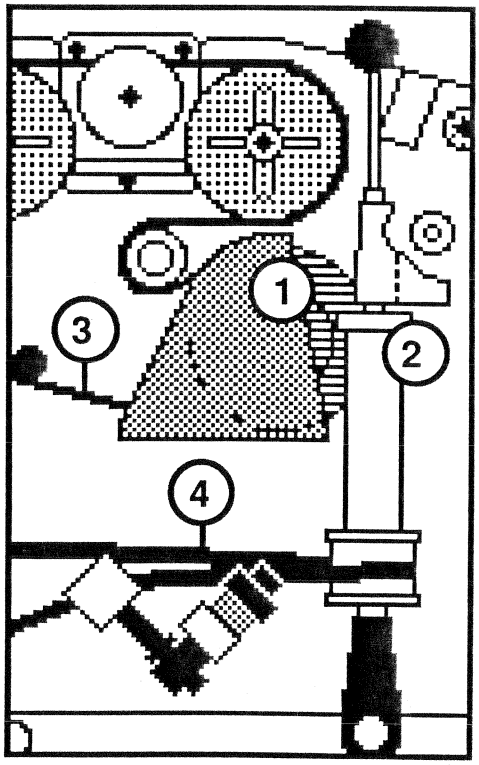
To get to these bearings the worm must be disassembled. Release the belt tension by loosening the three screws that hold the motor mounting bracket to the machine. Unfasten the bolt at the bottom of the worm shaft. Remove worm assembly from the machine. To remove worm from its shaft, push the cylindrical retaining sleeve (#6) toward the pulley. Separate the two halves of the black bracket. Slide the worm off its shaft. Clean, inspect and regrease the needle bearings. Reassemble.

Be certain that no grease has gotten onto the drive belts, particularly the feed drive belt (#4). If grease does get on the belts, clean them with a little alcohol.

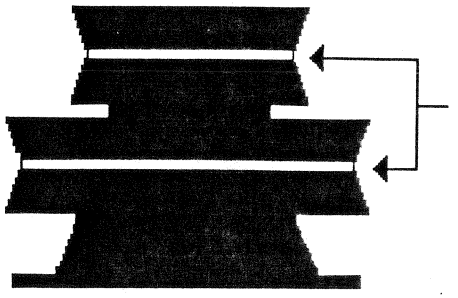
After greasing your machine, close the gear cover and run the machine for about five minutes. Then unplug the machine, remove the gear cover and make sure the belts have no grease on them.

Also, we have found that a small amount of "belt dressing" (available in auto parts stores) improves the traction and drive of the belts.

This little attention will help insure that your INCA Jointer / Thickness Planer gives years of service.



PINION GEAR



WORM GEAR ASSEMBLY