Kodak

Automatic Pallet Loader

Picker Gantry Hard Stop Upgrade

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Revision History

Revision	Date	Author	Comments
1	04 Jan 2008	S.Damiano	First draft
2	29 Jan 2008	A.Blignaut	Revised and edited
3	19 Feb 2008	A.Blignaut	Hard stop section isolated from the rest of the document.

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1. OVERVIEW

This document describes how to install two APL picker gantry hard stops.

2. PARTS/TOOLS NEEDED

Upgrade kit – 518-03263A

3. RELATED DOCUMENTS

Adjusting the Picker/Pusher Gantry Belts (719-00972A)

4. UPGRADING THE PICKER GANTRY

4.1 Installing the Eject Side Hard Stop

1. Move the picker to the home position (against the gantry post nearest to the operator). Type `>>init`
2. Idle the picker gantry Y-drive. Type `>>apl pusher y idle` .
3. Open the APL doors to get access to the picker gantry. Type `>>apl unlock` .
4. Loosen the picker gantry Y-drive belt on the eject side of the APL. First loosen the tension adjustment screw on the spring cylinder (shown with the hex key inserted) and then loosen the two tensioning bracket screws on either side of the spring cylinder.

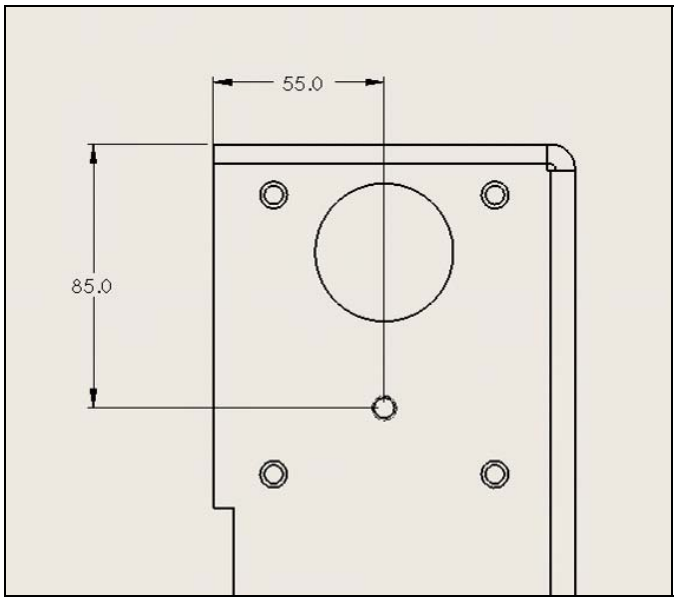


5. Remove the four pulley shaft coupling screws.



6. Remove the belt from the pulley and remove the pulley from the shaft.

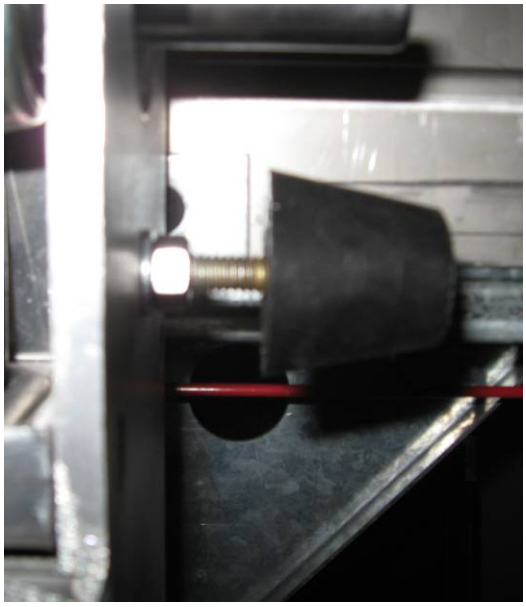
7. Using a pair of calipers, mark out and center punch a hole as shown below—dimensions are in millimeters.



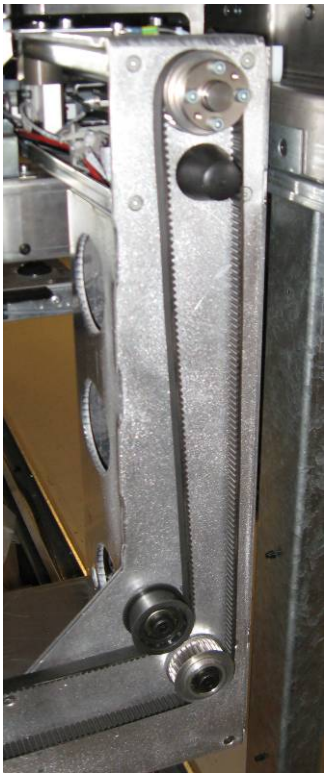
8. Drill a hole, size letter “F”, then tap the hole through using a 5/16-18 UNC tap.



9. From the upgrade kit, install the bumper (360-0050), the 5/16-18 nut (52-3118), and M8 flat washer (52-4165). Adjust the bumper in until the bolt is flush with the back side of the metal—the final adjustment will be done later in this procedure.



10. Reinstall the pulley onto the shaft and install the belt around the pulley. Do not tighten the pulley shaft coupling screws yet as you will need to loosen them when aligning the picker/pusher.



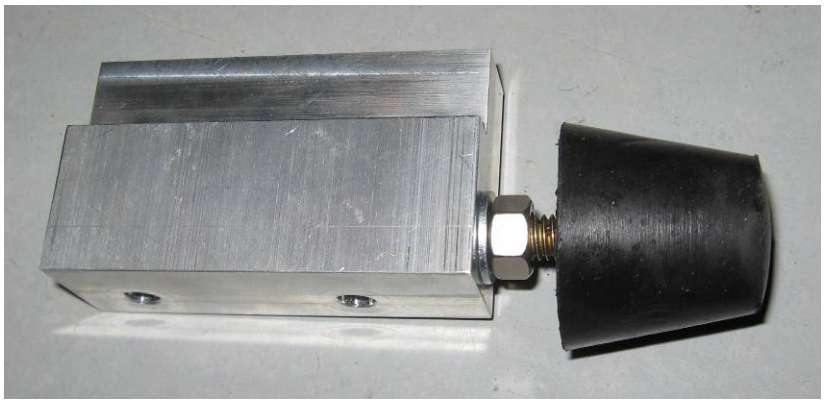
11. With the tensioning bracket screws still loose, tighten the tension adjustment screw until the spring is compressed inside the spring cylinder. There should only be enough friction on the spring cylinder so that the cylinder can still be turned using your fingers.

12. Adjust the picker/pusher gantry belts according to the following procedure located on TechPlanet: *Adjusting the Picker/Pusher Gantry Belts*.

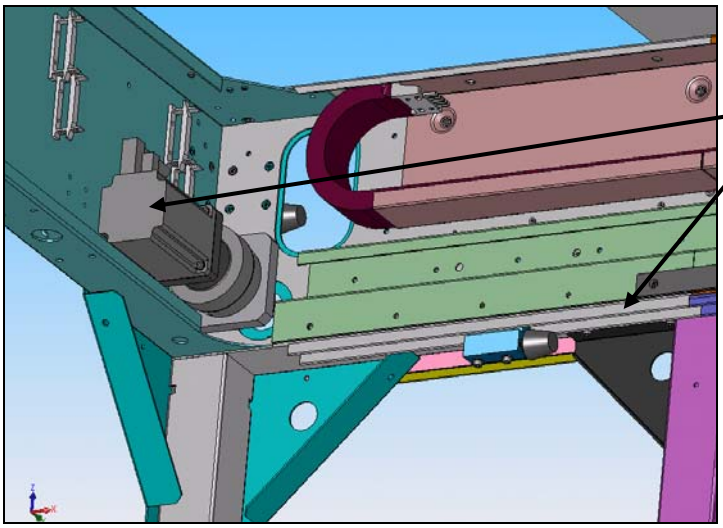
13. Clean up any metal debris from the drilling/tapping process.

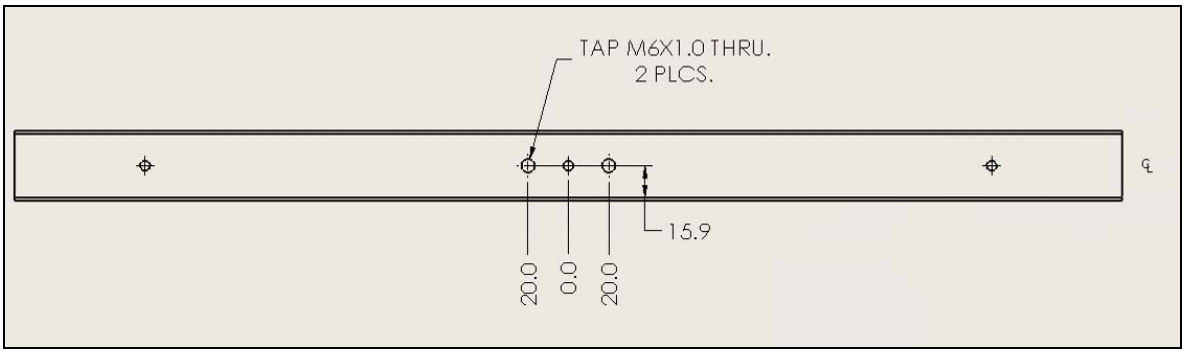
4.2 Installing the Power Box Side Hard Stop

1. Set up the other hard stop bracket (252-18171A) as shown with the bumper (360-0050), 5/16-18 nut (52-3118), and M8 flat washer (52-4165).



2. Refer to the diagrams below and use a pair of calipers to mark the center points for the two holes. Use the center rivet as a reference point on the end cap guide bracket. Dimensions are in millimeters.





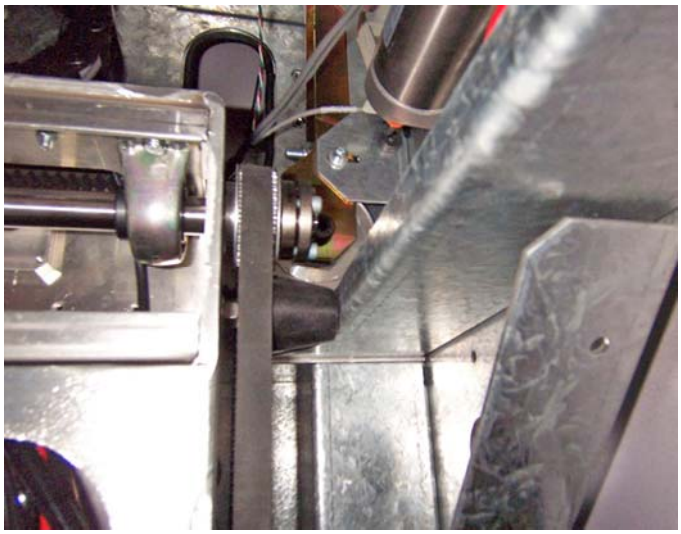
3. Punch the hole locations and drill 5 mm holes through both pieces of sheet metal. Tap the holes with a M6x1.0 tap. Clean up the metal debris from the drilling and tapping process.

4. Using two M6 bolts (52-4097) with Bellville washers (52-4247), install the hard stop that you assembled in step 1. Adjust the bumper all the way in for now.

4.3 Adjusting the Hard Stops

To adjust the bumpers:

1. Type `>>init` .
2. Type `>>set bay 1 segmentposx` to query the current value for bay 1.
3. Type `>>set bay x segmentposx` (where x is the last bay).
4. Type `>>apl gantry lock` to lock the picker gantry and table gantry together.
5. To adjust the hard stop closest to the shutter:
    a) Type `>>apl table x move <value>` (where <value> is the segmentposx value for bay 1).
    b) Adjust the hard stop out until there is a very small gap between the bumper and the APL frame.



6. To adjust the hard stop closest to the power box:

   a) Type `>>apl table x move <value>` (where <value> is the segmentposx value for the last bay).

   b) Adjust the hard stop out until there is a very small gap between the bumper and the gantry.

