Calibrating the unload table cup rotate position

Context

☑ Trendsetter 3244 Autoloader

Background

The *alpos crp (cup_rotate_pos*) NVS parameter specifies the absolute distance in mm between the HOME position and the ROTATE position. The firmware moves the traveler the distance specified by *alpos crp* and then checks for the rotate position sensor before attempting to rotate the unload vacuum cups.

If the sensor is not tripped, the traveler jogs forward a millimeter at a time for 5 mm, and if the sensor is not tripped it backs up towards HOME and then jogs forward in 2 millimeter increments for 10 mm.

Note: If the machine is running version 1.20 or older firmware, then the traveler jogs a few millimeters at a time towards the away end of the table until the sensor is tripped or the firmware gives up and suspends.

Steps

To calibrate the unload table cup rotate position

1. Move the unload table to the down position:

   ```
   table down
   ```

2. Move the traveler home:

   ```
   table move home
   ```

3. Increase the traveler speed:

   ```
   table speed fast
   ```

4. Move the traveler the distance specified by *alpos crp*:

   ```
   table move rotate
   ```

5. Check that the sensor tab is 1 to 2 mm on the home side of the rotate position sensor. Use the table command to check that the rotate position sensor is true.

   ```
   table
   ```

6. If required, use the following series of commands to adjust and check the rotate position sensor.

   ```
   set alpos crp <new_value>
   table move rotate
   table
   ```

7. Save the calibrated value with this command:

   ```
   nvs save alpos crp
   ```

8. Move the traveler home:

   ```
   table move home
   ```