Adjusting the 3244 backbone actuation timings

Context

☑ Trendsetter 3244

☑ Platesetter 3244

Note: The newer TS3/8 engines (with shaft encoders) have different flow control systems from the original TS3 engines. The TS3 engines have flow control valves on both ends of each actuator, whereas the TS3/8 engines have a flow control on one end of the engine and a fixed orifice on the other end. Therefore, on the TS3/8 engines, you do not have the option of "setting" the speed. Rather, you must adjust the flow control on one cylinder so its speed matches that of the cylinder with the fixed orifice. (this fixed orifice has been selected to match the factory timing specs as closely as possible).



WARNING: Failure to follow the safety policies and procedures for field engineers may create a dangerous situation that could result in serious injury as well as damage to the output device. For more information, see: http://techplanet.creo.com/output/computer_to_plate/all_ctp/nav/safety.htm

Steps

1. Use a stopwatch to measure the actuation timing of each backbone and check results against the table below.

Note: Do not use the `time engine` or `time table` command for this procedure, as it has been found to be very inaccurate.

Actuator name	Times expected (seconds)
Leading edge retract (`lec off`)	0.6 +/- 0.1
Leading edge extend (`lec on`)	0.5 +/- 0.1
Roller retract (`rlr on`)	0.6 +/- 0.1
Roller extend (`rlr off`)	0.3 +/- 0.1
Trailing edge retract (`tec off`)	0.9 + 0.3
Trailing edge lock retract (`tec unlock`)	0.3 +/- 0.1
Trailing edge lock extend (`tec lock`)	0.3 +/- 0.1
Trailing edge extend (`tec on`)	0.9 +/- 0.1

2. If any of the times on an actuator are consistently out of specification, check first for mechanical problems or interference that may cause a problem.
3. If no mechanical problems are detected, adjust the speed control associated with the actuator.

Note: An intermittent fluctuation at times may not be a problem. However, you should re-test the actuators and inspect for any possible interference problems.

4. If all or most times are not correct, ensure the air supply is set to 80 psi and that there is not a restriction to flow in any of the air supply lines.

IMPORTANT: Make sure that both sides of the actuators reach the end of their travel simultaneously.

Notes

Hints for adjusting Engine Timing

- speed control on black hose controls the retract time
- speed control on red hose controls the extend time
- one turn of each speed control equals approximately 0.1 second

Roller Timing:

Once the roller timing has been adjusted, ensure that both sides of the roller are contacting the drum at the same time:

- Move the roller in and out by pushing on the blue button on the solenoid valve marked “roller” (or typing `rlr on|off`).
- Adjust the black (retract) speed control so that the you hear a “hollow clunk” sound when the roller contacts the drum.