

# Hartzell HC92ZK-8D SN:312L - Piper Comanche 180

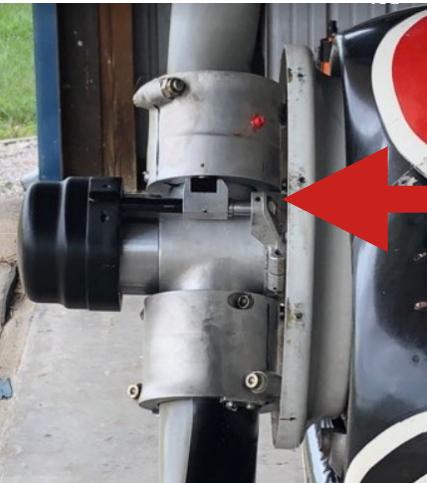
## Prop Control Diagnostic Logic



Low Pitch

Prop is in this position when engine operating regardless of prop control position.

From the Propeller Owners Manual:  
A non-counterweighted propeller requires governor supplied oil to increase blade angle. If the oil supply is lost, the non-counterweighted propeller will go to low pitch, or high RPM



*The blade position does not match the piston position*

*The piston is fully extended but the blades are in the low pitch position. Since oil is used to increase pitch the blades should be in the high pitch position*

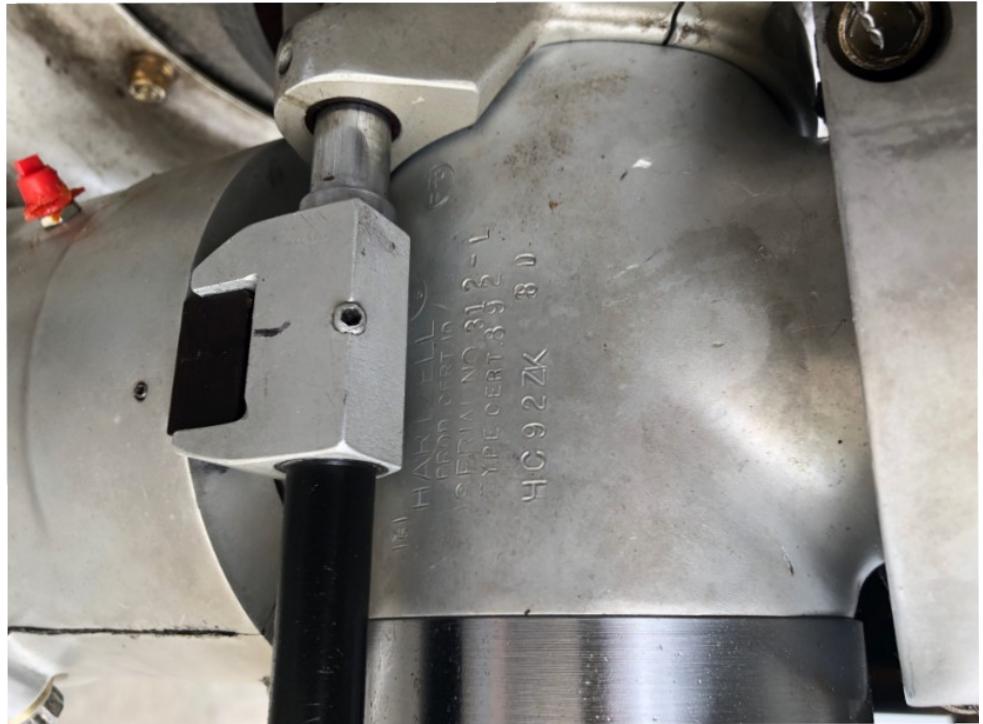
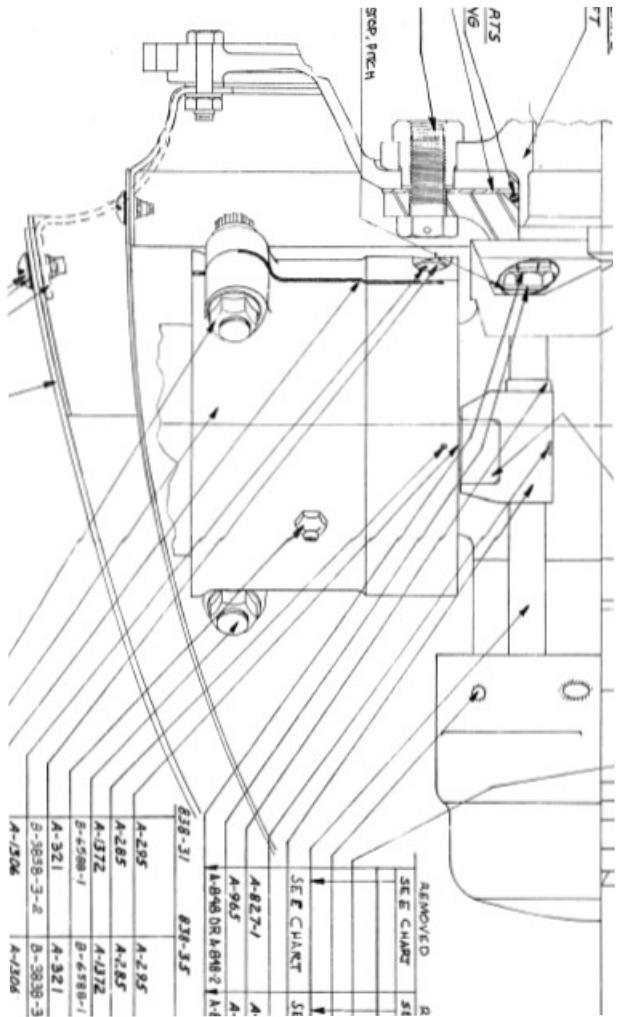
*The piston is fully retracted but the blades are in the low pitch position.*



High Pitch

*I can rotate the blades by hand to this position*

*The piston is compressed and oil has been forced out back to the sump.*



*Note grease zerk position in picture  
vs drawing and general orientation  
of the blade retainer*