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CONTROL WHEEL UPGRADE INSTALLATION INSTRUCTIONS

General Information:

Early style control wheels are an integral design with the axle and control wheel manufactured as “one piece”. Beginning 1970, Beech developed an axle/adaptor kit to install the new large ram’s wheels. These kits allowed the upgrade of all previous early style wheels.

Beech developed the large style ram’s control wheel to accept electric trim controls, PTT switch, center-mounted clock, internal map light and other optional switches. The wheel was designed as a casting with a hollow interior. The Cygnet wheel is a FAA-PMA direct replacement for the Beech Ram’s wheel.

After the installation of these parts, the airworthiness directives for the Beech control wheel and axle adapter no longer apply.

Conversion from early style control wheels to large ram’s wheels requires:

1. Remove control wheel with the shorter of the two axles and install the new short axle adapter part. The keyway on the Cygnet part is vertical which will require the sprocket to be rotated 90 degrees when reinstalling.
2. All installations will require a readjustment of the chain turnbuckle screws to level the control wheel(s) and set proper tension. The wheels should be rigged to be level with the ailerons in the neutral position. Turnbuckle screws must be safety wired before returning the aircraft to service. Safety wiring procedure and turnbuckle screw engagement to be per Beech maintenance manual or AC 43.13 acceptable methods and practices
3. When upgrading a dual yoke the long axle may sometimes require a small shim installed on the long axle before inserting into the bearings. This spacer may also be between the sprocket and internal bearing. This shim is included on the long axle during shipping. To determine if required, insert long axle through the two bearings and check to see if the 5/8” diameter axle portion extends beyond bearing.
4. Make appropriate logbook entry of installation. A 337 is not required since these are PMA replacement parts and do not constitute a major repair or alteration. Control wheel weight is 2 lbs. Axle/adaptor is ½ lb. Weight difference should be computed by actual weight of the removed components compared to all the new installed parts. Be sure to include all new switches, clock, trim controls, map lights etc... that you may be adding in this installation.
5. Check for proper control operation. Visually inspect for full internal chain travel and safety wire installation before returning to service.
6. Please call Cygnet Aerospace technical support with any questions regarding the installation 805 528-2376.