## *Pre-Paint>Fuselage>Fit flap drive shaft bearing blocks*

## Objectives of this task:

In this task you will position and flock the flap drive shaft bearing blocks to the inside of the fuselage.
Note that the flap drive shaft will be fitted in the *Post-Paint* section: only the bearing blocks will be fitted in this task.

## Materials required:

Card # 16T or 16J *'Flaps'*
Resin and flock



## Prepare the drive shaft

The flap drive shaft is only used for bearing block alignment at this stage, so you will need to remove all the fittings: one drive arm from each end and the lever arm from one end, until you have just the bare tube. Note that there are actually 2 tubes, one inside the other: make sure that both tubes are still together when this task is completed and the shaft is reassembled.

## Position the bearing blocks

Place the drive shaft through the pre-drilled ¾" holes (circled) so that the shaft protrudes an equal amount from each side of the fuselage, then slip one bearing block on each end with the screw holes to the top.
Level the top of the block, hold it firmly in place and drill 2 x 3/16" holes through the fuselage skin, using the bearing block as a drilling jig as shown below right:
Mark the blocks to indicate which side of the aircraft they fit to as well as an arrow towards the front of the aircraft, then remove the flap drive shaft and the bearing blocks. Wax each end of the shaft – it will be used to align the bearing blocks as you flock them into place and the wax will prevent any flock sticking to it.
Countersink the outside of the screw holes to suit the Tinneman washers.
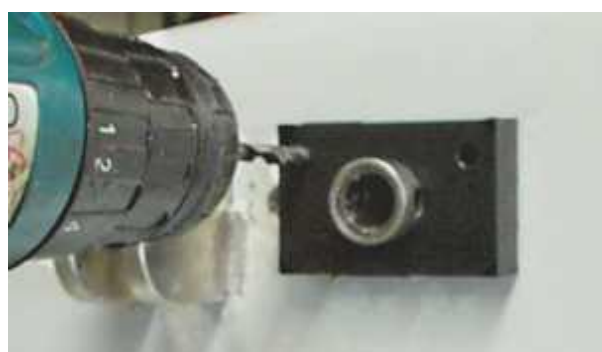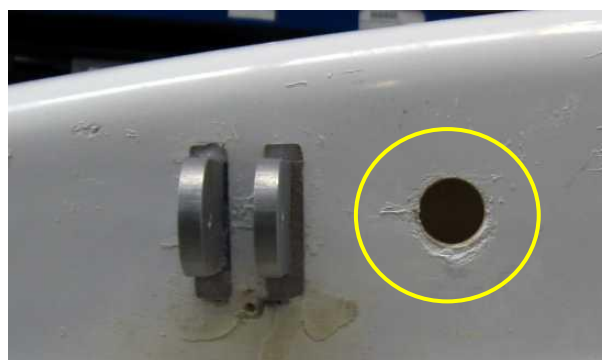
## Fit the bearing blocks

Roughen the inside of the fuselage around the area where the bearing blocks will be mounted and sand the backs of the bearing blocks, mix a small batch of resin and coat the area to be bonded then add flock to the resin and apply a 3mm bed of flock to the back of each block, then slip them onto the shaft with the flocked sides facing out and fit the shaft to the fuselage one end at a time, working from inside the cabin.



Move each block out and bed it against the fuselage and secure it with countersunk screws and Tinneman washers from the outside of the fuselage and washers and Nyloc nuts on the inside The photo above shows the bearing blocks (circled) flocked into place with the drive shaft keeping them in alignment: the photo has been taken from the front of the aircraft facing towards the rear.

Tighten the nuts just enough to hold each block in place while leaving the shaft free to turn. Clean away any excess flock from around the block and leave overnight to cure. The photo at right shows the fitted block from the outside with the drive shaft still in place, while the photo below shows the block from the inside with the shaft removed.





Next day tighten the Nyloc nuts firmly and do a final check for binding, then remove the flap drive shaft completely: pull it out through one side of the fuselage, clean off the wax, make sure that the inner and outer shafts are fitted together then reassemble the drive fittings to the shaft and store for later use.

This completes the *Pre-Paint>Fuselage>Fit flap drive shaft bearing blocks* task.