

# Griffon 2000TDX

Built by Tony Middleton



The model was built to the drawings from Mark Porter's web site but with two lift ducts. Both ducts are identical in size but the forward duct used a single air outlet to the skirt; however, the model currently runs with one lift duct. Several props were tried as well as multi-blade fans all with different pitches. Multi-blade fans were very effective at lifting weight. One 8 blade fan would lift the model at a weight of 14lbs and sail on water but would not accelerate over the hump. Running over tarmac however was fine and did not drag the skirt at all.

The thrust duct was built as per Mark's diagrams and then mounted onto a base that can be removed from the model for modifications etc. The biggest problem here was getting enough thrust to push the model over the hump when operating over water. Many propellers were tried but with the duct as designed the model never achieved hump speed. Currently the model uses a duct with a 10x6 three-blade prop and a 2.3:1 belt drive gearbox.

The superstructure was drawn up using photographs from the Griffon web site. Several views were needed and care taken over perspective. The superstructure was built as three separate units to facilitate access to the base so that changes could easily be made. The front cabin was the first of the three units to be made and is secured with two clamps.

The centre cabin acts as a cover to the radio compartment and is the only part of the superstructure that has no catches to hold it down. Construction is as per the rest of the superstructure and consists of liteply and balsa. Celluloid is used for the windows.

The air duct cover was the last section of the removable superstructure and is designed to lock into the rear thrust unit via two dowels while being locked down by two clamps at the front edge. Construction is of liteply and balsa with 1/64" ply used for the louvers.

The skirt is made from a polyurethane coated polyester fabric, which is sold as tent liner and has been designed to suit the bag and plenum pressures.

A Futaba 8FG Super Transmitter on 2.4Ghz and a Futaba R6208SB receiver is used to control the model, with only one servo being required for the rudders. The speed controllers (ESCs) used are, one RClone RF10 unit for the thrust and RClone RF10 unit controller for lift. The thrust ESC has forward and reverse capability but the lift ESC is forward only. The model runs well on two 3000mAh 8cell Nimh packs but only has a duration of 15mins.

The radio equipment and batteries need to be positioned so that the model balances at the centre point. The 8 cell battery packs are installed in the forward cabin and can be moved to change the balance of the model for over water operation. The two speed controllers and receiver are mounted to the rear of the central cabin. The rudder servo is mounted right at the rear on the left side of the model to enable a direct link between the servo and the rudders. If running on water then a slightly rearward balance can be an advantage to help achieve the 'on hump' ride.