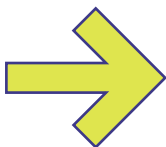




DON'T LOSE YOUR HEAD, — lose the flybar —



FOLLOWING THE REVIEW ON THE MIKADO V-BAR SYSTEM IN THE LAST ISSUE, RICHARD BUDD THOUGHT IT WOULD BE A GOOD EXCUSE TO LOOK AT AN ALTERNATIVE HEAD UNIT FOR A T-REX 500 SIZE HELICOPTER FROM RJX



As you may have read in the V-Bar review last month (issue 47/March 2010), there

were some delays in flying due to having the wrong adaptor plates in the Mikado T-Rex 500 conversion kit. I happened to mention my disappointment in the delay in testing the V-Bar whilst on a trip across to Rossendale Models. "You do know that RJX is working on a 500-size flybarless head," I was asked, but no I didn't. Within a few minutes, I had been shown a picture, and in less than a week I had the prototype (or early production) example in my hand.

I was initially a little disappointed that this was not a complete head. No doubt that this is to keep the price lower, but it does require you to use the following parts from your original T-Rex 500 head:

- 1 x Feathering spindle
- 2 x Dampers
- 2 x Spacer washers (between dampers and blade grips)
- 2 x Thrust race washers.
- 2 x Ball links and pushrods.

I have to admit, instead of using parts from the standard head, I simply purchased the required spares from the local model shop and I still ended up with change from £7!



The RJX kit contains plenty of CNC machined and black anodised alloy parts



Assembling the head only took 20 minutes and it fitted straight on without having to change any of the V-Bar set-up. It is a well made, strong and good value upgrade



The CNC alloy head block, blade grips, pitch arms, driver arms and thrust races

WHAT'S IN THE KIT?

So what do you get with the RJX head? Opening the pack showed that you get:

- 1 x CNC Ally Head block
- 2 x CNC Ally blade grips

- complete with radial bearings
- 2 x CNC Ally blade pitch arms with ball links
- 2 x CNC Ally Swash driver arms complete with double ball races
- 2 x Thrust Races
- Nuts, bolts and washers

What you don't get is any instructions. Although I personally don't think any are necessary, they can be downloaded from the RJX website if required (www.rjxhobby.com).

CLOSER LOOK

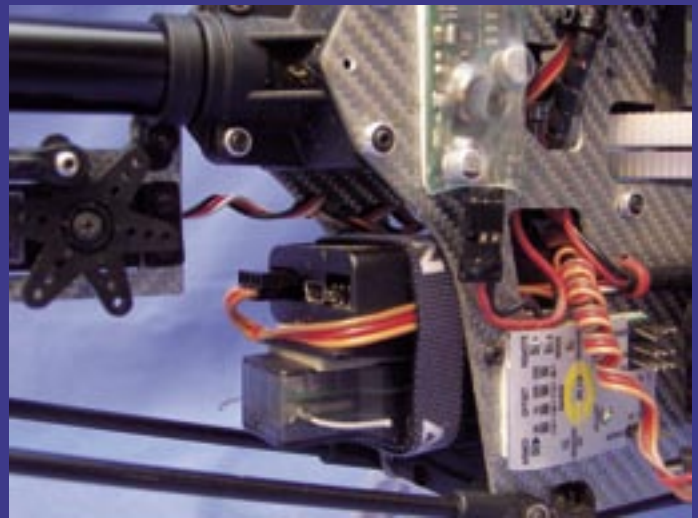
A closer look at the head block showed that there were three mounting positions and that the bolts that retained the swash driver arms also acted to clamp the head block to the shaft. All ally parts were nicely finished and anodised in black. Getting out the digital vernier gauge allowed for some measuring. I first measured the standard head which showed that the standard height between the top bearing and the feathering shaft was 100mm. A check on the RJX head showed that the three mounting points allowed an equivalent height of 80mm, 84mm and 88mm respectively. The next measurement of interest was the pivot distance between

the centre of the spindle and the centre of the ball. Here both used an identical distance of 28mm. This meant that I would not have to alter any of my existing V-Bar set up, but I could see what difference getting the centre of the head closer to centre of gravity.

Assembling the head only took 20 minutes, but I did make a last minute decision to substitute some K&B 3D dampers. All that was required was to fit the dampers into the head block along with the feathering spindle, add the spacers then the blade grips. Finish with the thrust race washer and the greased thrust races (making sure that they are the right way round - larger bore towards the centre of the head) and complete with bolt and washer. The pitch arms are attached with a pair of M3 bolts in each and set for trailing edge control of the blade. The head can then be attached to the heli with the M3 Jesus bolt (I chose the centre 84mm position).



The CNC machined alloy parts are well made and precisely finished



The V-Bar box of tricks and other electronics fitted on the model



A close-up of the RJX flybarless conversion parts fitted to our test 500



The Mikado V-Bar virtual flybar system worked well in our test, see issue 47

The swash driver arms can then be attached with a single M3 bolt each, and then all that is left is the pushrods. I raided my spares box for 2 suitable pushrods and four ball links and simply ensured they were adjusted to ensure zero degrees at centre stick.

FLIGHT TEST

The blade grips have a 10mm opening, and my initial flight was with some RJX carbon blades. A flight report is not really necessary as it is not any different from the review in the last issue. I did feel

that the stops on rapid elevator input was marginally better (I would expect this due to the rotor head being 16mm lower than the standard set up) but I couldn't rule out whether this is due to the optimisation built into the V-Bar software. Just like before, although I tried this set-up on a variety of blades I felt more comfortable with heavier carbon blades.

THE VERDICT...

In my opinion the RJX head does offer better value for money than the Mikado conversion set and

I also think it looks better - not just the head itself, but with the lower rotorhead, but this will be a matter of opinion and personal taste. Although personally, I would have preferred that the head was complete, this would undoubtedly put the price up a little, and most people would have no problem in using a few bits from their standard head which would be made redundant in this conversion. ➡

Richard Budd

TECH SPEC

RJX Flybarless head	
PRODUCT TYPE:	Rotorhead conversion kit
RRP:	£66.36
AVAILABLE FROM: All good model shops	
MANUFACTURED BY: RJX Hobby	
WEB: www.rjxhobby.com	
UK DISTRIBUTOR: King Cobra Distribution	
TEL: 01706 260503	
WEB: www.kingcobra.co.uk	
Test product supplied by Rossendale Models (www.rossendalemodels.co.uk)	