Phoenix Model Waco 63”

Model Link - http://phoenixmodel.com/Product.aspx?ProductId=621

According to the specs on their website, this model has a 63 inch wingspan, and weighs between 5.3 and 5.4 Kg (11.7 to 11.9 pounds). I downloaded the manual for this kit and took a look at the scale 3-view and measured the length of the prop with respect to the wingspan, and the prop shown in the drawings is a 17-inch size, so it looks like it is safe to figure a 16-17 inch prop for this model.

Looking at the motors that we have available that work well on a 6-cell LiPo battery and spin a 16-inch prop, the one that stands out is the BadAss 4520-470Kv.

Looking at the prop chart for the BA-4520-470 motor, when running it on a 6-cell LiPo battery, one of our BadAss 16x8 wood props would work very well. At full throttle you can expect to get these performance numbers.

Volts - 22.2
Amps - 67.3
Watts - 1493
RPM - 8175
Thrust - 195 ounces (12 pounds 3 ounces)
Pitch Speed - 62 MPH

This motor will also take a 16x10 prop, if you want more speed with the same amount of thrust, or a 17x8 prop if you want more thrust at the same speed. The full prop chart data for this motor can be found on our website at the following link.

https://innov8tivedesigns.com/pub/propcharts/BA4520-470-Specs.htm

For a lower current set-up with right at a 1 to 1 thrust to weight ratio, you can also run an APC 15x8-E prop if you want to stick to a 15-inch size. Here are the full throttle performance numbers for that prop.

Volts - 22.2

Amps – 49.1
Watts - 1088
RPM - 8544
Thrust - 161 ounces (10 pounds 1 ounce)
Pitch Speed - 65 MPH

For a speed controller, our BadAss Rebel V2 100-amp ESC or the BadAss Renegade 105-amp ESC would be a good match for this motor. Both of these ESC's have a built-in BEC Circuit.

Below are links to the items described above in the power system recommendation.

BA-4520-470 Motor: https://innov8tivedesigns.com/catalog/product/view/id/1887/s/badass-4520-470kv-brushless-motor/category/324/

BadAss Rebel V2 100-amp ESC: https://innov8tivedesigns.com/badass-rebel-v2-series-brushless-esc-80a.html

BadAss Renegade V2 105-amp ESC: https://innov8tivedesigns.com/badass-renegade-v2-series-brushless-esc-85a.html

BadAss 16x8 Wood Prop: https://innov8tivedesigns.com/badass-wood-electric-propeller-16x8.html

APC 15x8-E Prop: https://innov8tivedesigns.com/apc-15x8e-propeller-black.html

BadAss 6-cell 5000mah LiPo Battery: https://innov8tivedesigns.com/badass-45c-5000mah-6s-lipo-battery.html