

Audacity Models **TIGER 50**

FEATURES

We received the Tiger .50 and were excited to open the box. The helicopter comes in two flavors, a kit to build, or an Almost Ready for Flight version. Our Tiger was pre-built (ARF), and looked great. We laid out all components and looked over the kit to see what it was all about. The frames were already built up, and the head assembly complete. We found a nice surprise when we disassembled the kit: bearings on most rotating parts. Thread lock was used on all necessary hardware, and each component fit well. The appearance of this heli seems to be a hybrid of the Venture and the Evolution.

► FUSELAGE/MAINFRAME

The fuselage is made of FRP (fiber reinforced plastic) and is quite stiff. The frames are molded with integrated bearing holders and align perfectly. The hardware is quality, and no problems were found with rounding off the hex screws/bolts. After securing both frame halves with minimal hardware, the entire assembly feels like one piece. Included in the design is an extended battery tray, with lots of room for all components. The overall appearance of the fuselage is tall and wide.



► POWER TRAIN

The power system includes an 89 tooth main gear with a 10 tooth pinion. This gear ratio allows the heli to operate with both .46 and .50 size engines. The 8:9:1 setup will tend to run the .50 at higher RPM, and some pilots are changing the main gears out. Engine alignment can be a bit tricky, but offers the ability to get the engine set perfectly. The molded airfoil cooling fan and large clutch assembly seem to work well together. Power is transferred up a hollow 10mm main shaft to the head block. The autorotation hub was pre-built, and moves without resistance. The tail gets its rotation from a belt drive system and moves freely.



► TAIL ROTOR/BOOM

The tail rotor system utilizes a belt to spin up the tail blades. No new design here, slide the boom forward to loosen, or backward to tighten the belt tension. The tail boom itself is made of aluminum, and is longer than most other .50 size helicopters (33"). The tail blade grips include bearings and move perfectly. The steel tail hub and strong blade grips (FRP) will last quite a while. The tail slider is connected at two points, eliminating any lateral play. The tail gear ratio is quite impressive (5:2:1), and compares favorably to other helicopters in its class. The four boom guides fit snug and have a floating alignment system, allowing free movement and proper control rod alignment.



► SUPPLIED GEAR

The Audacity Tiger .50 ARF comes with the frames, head, and boom pre-built. The large clutch assembly, fan, and landing gear have to be installed. Wooden 600mm main blades and plastic tail blades are included. All linkage is adjustable, pre-measured, and comes in the box. Plastic vertical and horizontal fins mount nicely, and boom supports are included as well. Cable guides molded into the sides of the chassis make for very sanitary wiring.





▶ HEAD UNIT

The Head Unit of the Tiger is designed as a 120 degree CCPM three servo system. Direct control of the swash plate is achieved between servos and swash. Even though the three servos are connected to different sized pushrod lengths, no noticeable interaction occurs. The swash plate is a simple plastic design, and moves quietly up and down the main shaft. The washout assembly comes complete with flanged bearings and a nice metal sleeve to reduce play and wear. The flybar paddles come with weights to calm the flight characteristics for beginners. Thrust bearings are included on the main grips,



and movement is effortless. The Tiger comes with 70 durometer dampers, which in relation to other kits is a bit soft. The overall feel of the head is soft or loose, but definitely a well tested and mature design.

▶ OTHER FEATURES

The Tiger .50 comes with many nice features in one inexpensive package. There is a built-in gas line clamp molded in the side frame. This is helpful when fueling the helicopter. Two platforms are included to mount the gyro in different locations. Vibration reducing mounts are included for the fuel tank and power switch. Servos are easily mounted using the snap-in "servo bosses." This design makes it easy to mount different servos from different manufacturers. Replacement parts are relatively inexpensive, and are available through www.audacitymodels.com. Another great feature is the ability to adjust flight ratios. The pilot can choose outer or inner balls to vary the flight characteristics of the helicopter. This allows pilots to "tune" the helicopter to their flying style. This ability allows beginners and 3D pilots alike to enjoy the same helicopter.



Audacity Models

TIGER 50

BUILDING & SETUP TIPS

- The ARF kit comes in four basic pieces: the frames, landing gear, boom assembly, and canopy. The frames are built, bearings installed, and the rotor head attached. The boom supports are mounted, and the tail box assembly is connected.
- Make sure to follow the manual, and go over every component to make sure that the ARF heli was built correctly. The instruction manual is easy to understand, includes all parts, and "Pro Tips" in an easy-to-read format. Given the lack of quality manuals associated with RC helicopters, we found the Tiger .50 manual to be highly accurate, and well above average.
- Our kit was built very well from the factory, and we were impressed with the quality.
- Installation of the landing gear is easy; just install the four screws and tighten.
- The boom attaches with four bolts to the frames, and slides in easily. Push the boom in all the way, slip the tail belt over the pulley, and adjust outward to add tension to the belt.
- Attach the boom support with two screws, and the tail is complete.
- Mounting the electronics is extremely easy. The addition of the servo bosses allows quick and accurate mounting of all servos. Run the wires in the included clips to give the helicopter a "clean" look.
- Attach the control rods which come measured and assembled.
- Install the receiver, battery pack, and switch harness to complete the electronic install.
- Wrap each tail pushrod support around the boom, and slide in the "floating" ball mounted rod.
- Ensure that the whole system operates smoothly, and watch for binding.
- The final steps include centering all servos, making sure the geometry is correct, and connecting all linkages.



THE SPECIFICS

CONNECT:

MANUFACTURER: Audacity Models
DISTRIBUTOR: Genesis Hobby Distributor
WEB: www.audacitymodels.com

HELI INFO

HELICOPTER: Tiger 50
CLASS: 50 size nitro
PART #: AUD22501
STREET PRICE: \$299
PRICE AS TESTED: \$875 (including all items used for testing)
SETUP TIME: 3.5 Hours
EXPERIENCE LEVEL: Beginner to intermediate pilots

GEARING

MAIN GEAR RATIO: 8.9:1
MAIN TO TAIL GEAR RATIO: 8.9:5.2

TESTING SPECS

MODE FLOWN: Normal / Flight Mode 1
RPM OF EACH MODE (N12): 1,720 rpm (N) / 1,800 rpm (1)

PITCH CURVES

| | Low Stick | Mid Stick | High Stick |
|-----------------------|-----------|-----------|------------|
| NORMAL: | -5 | 0 | +11 |
| IDLE-UP 1: | -11 | 0 | +11 |
| IDLE-UP 2: | -11 | 0 | +11 |
| THROTTLE HOLD: | -6 | 0 | +11 |

DIMENSIONS



TEST CONDITIONS

WEATHER: Hazy Sun
TEMPERATURE/HUMIDITY: 62° F / 43%
BAROMETRIC PRESSURE: 29.97
WIND SPEED: 25mph gusts
WIND DIRECTION: North East
VISIBILITY: Clear

Weather info by www.accuweather.com

REQUIRED TO FLY

6 channel radio, 5 servos, gyro, engine, pipe

TECHNICAL INFO

RANGE: .50 to .55 size engines
FUEL/ELECTRIC: Fuel
SERVOS NEEDED: 5 Standard Size Servos
FUSELAGE MATERIAL: Molded Plastic (FRP)

SCORECARD

SCALE RATINGS: 1-POOR • 5-EXCELLENT

| | |
|------------|----------------------------|
| 4.5 | INSTRUCTIONS |
| 3.5 | PARTS QUALITY/FIT |
| 4 | DURABILITY |
| 4 | TUNABILITY |
| 3 | OVERALL PERFORMANCE |
| 4 | VALUE |

+ HITS

- Very solid value
- Great instruction manual
- Soft controls, perfect for a beginner
- Optional items will make it much more aggressive

- MISSES

- Head damping too soft for anything other than basic flight.
- Blades had a tendency to go out of track at high headspeed.