

BY KEVIN SIMONSEN
kevins@flyrc.com

PILOT RC
28% Decathlon

Not only will it do everything, it will do a little more!



Author's Opinion

The Pilot RC Decathlon is a delight. It looks stellar and flies even better. The lightly loaded wing allows amazing slow speed performance, is light and nimble on the controls, and it is as stable as a trainer. A relatively low time modeler could easily fly the Decathlon, and a modeler with experience could make it sing!



Key Features

- > The huge panels have latches that give unlimited access to radio compartment.
- > The engine cowl features an incorporated cowl ring and hidden hardware installation.
- > The Decathlon includes loads of lightweight and strong carbon accessories.
- > The model features all-wood construction.
- > The flaps can deflect up, thus allowing unlimited mixing capabilities.

Pros

- > Incredibly light
- > Very versatile with broad flight envelope
- > High quality, great fit and finish

Cons

- > A factory-installed firewall would save time on the bench
- > The exhaust tunnel is too shallow to fit around a standard canister exhaust system

NEED TO KNOW

MANUFACTURER: Pilot RC

DISTRIBUTOR: Chief Aircraft

TYPE: Large-scale aerobatic gas ARF

FOR: Intermediate to advanced sport pilots

MINIMUM FLYING AREA: RC club field

PRICE: \$899.99

NEEDED TO COMPLETE: 50cc gas engine, prop, radio system, glue, various shop equipment, and shop experience with large-scale models.

Pilot RC has been around for several years now and is recognized namely for their large-scale gas powered planes. Chief aircraft, the distributor for Pilot RC does an incredible job with support that explains their continuing increase in popularity. Chief, besides having a full line of accessories to equip your model, even offers free wood replacement parts in the event of a crash. If you suffer a mishap and damage your Pilot RC model, Chief will send you any laser-cut parts required to repair your model and only charge you for shipping. Pilot kits have a reputation of being very light and incredible performers. I have a healthy selection of aerobatic 3D planes, but nothing is as fun to fly as my feather light Decathlon. Huge wing, flaps, and a DA 50 gasoline engine translates to big fun!

ASSEMBLY TIPS

The airframe is constructed from laser-cut plywood, balsa and is expertly covered in genuine Oracover. The two-piece wing features a pair of carbon fiber carry-through spars. Accessories include: pre-painted fiberglass engine cowl, pre-painted wheel pants, wheels, carbon main gear and tail wheel bracket, pre-painted aluminum brackets, lift struts, fiberglass control horns, pre-hinged control surfaces (except rudder which just needs gluing), push rods, ball links, rudder pull-pull cables, fiberglass servo arms, pre plumed fuel tank, tank fueling dot, linkage adjustment wrench, Allen keys, and all the needed hardware.

Assembly was slow at first, but got easier once under way. I found the build relatively straightforward. The Pilot RC website has directions specific to the Decathlon and provided you follow them along with a little

building experience will make your Decathlon build an easy one. The helpful staff at Chief were great at answering questions during the build and if that's not enough there are also several blogs regarding the build.

The tail has a clever way of attaching the vertical fin and horizontal stabilizer to the fuselage by interlocking the assembly together with the carbon fiber carry-through spars. The vertical fits into a slot in the fuselage and the carry-through spars of the hori-

zontal then slide through the base of the fin and fuselage thus locking them firmly into position. A screw on each horizontal stabilizer base, to the fuselage, keeps them locked into position. After the tail is into position, aluminum brackets are attached to hard points and cable flying wires get installed for added rigidity. The "klett" style flat rudder hinges were epoxied into place. The carbon tail wheel bracket brings a new level of simplicity with a single spring steering system. The carbon fiber main gear installs



IN THE AIR

I fueled up the Decathlon with the Jersey Modeler Fueler and after a few flips, the DA 50 started right up. The straight pull choke I installed makes for easy starts and is easy to access through the large cabin door. As the Decathlon taxied, the generous-sized wheels allowed it to roll easily over field imperfections with ease. For the first flight, I powered it up without flaps. The Decathlon accelerated hard, instantly lifted the tail and was airborne with a little backpressure. The Decathlon tracks straight down the runway with minimal effects from torque and climbs at a feverish rate.

After getting to altitude and tweaking the trims, I finally got a chance to enjoy what I had been waiting for. The Decathlon is a light and nimble performer. You could definitely tell the wing was big and lightly loaded. My original setup did not have any differential in the ailerons, but later I added a little for more coordinated turns. Experimenting with flaps was like tossing an anchor overboard; it really put the brakes on. I dialed-in a hint of down elevator with full flaps in order to maintain level flight regardless of flap position.

The Decathlon is as tame as it gets flying as if it was a trainer. Smooth predictable turns are the norm with its light, well-balanced controls. Getting more aggressive with the control inputs is where the fun kicks-in and you get to experience the Decathlon's amazing aerobatic capabilities. Pick up a little speed and the Decathlon will slow roll, point roll, and knife-edge better than you would think for a "high-winger". Some control coupling experienced when in knife-edge, but not enough to bother programming out with the radio because I built this plane for fun not IMAC. Inside and outside snap rolls are on the lazy side and look great, and the inverted flat spin looks simply awesome! Inverted flight requires a little forward stick pressure to maintain level flight and didn't seem to be bothered when messing with flaps. What I appreciated about the Decathlon was how it could be



traditionally with high-quality 4.5 inch aluminum hub wheels and gorgeous wheel pants. A fairing fits over the gear attachment hardware for a more scale appearance.

The wings feel very light and feature a long carbon rod as a hinge for the ailerons and flaps. Since the flaps are hinged in the same manner as the ailerons, they can be mixed to function as ailerons going up as well as down. Aluminum brackets and hardware firmly attach the alu-



The DA 50 is installed with a Slimline Pitts muffer.



and install the DA to the firewall. Fit the firewall with the mounted engine into the motor box and install the engine cowl over the engine. Install the spinner bulkhead onto the engine, center the bulkhead with the cowl, and glue the firewall at that location. Aluminum angles reinforce the firewall and were drilled for hardware during installation. The Decathlon has an

SPECS

WINGSPAN: 107 in.

WING AREA: 1,913 sq. in.

WEIGHT: 16 lb.

WING LOADING: 19.27 oz./sq. ft.

CUBE LOADING: 5.3

LENGTH: 74 in.

RADIO: Hitec Aurora 9 channel transmitter, Hitec Optima 9 channel receiver, Hitec HS 7954 SH servo on rudder, Hitec HS 5585 MH servos on all other flight controls, Hitec HS5495 BH on throttle

ENGINE: DA 50cc gas engine

PROPELLER/SPINNER: Vess 23A prop and included aluminum spinner

BATTERY: Duralite Plus 2600mAh 7.4 volt

RPM: 7,300

FUEL: 32:1 pump gas to oil

flown behind the power curve. The light wing loading allowed ridiculously tight turns and small diameter loops

not possible with a heavier airplane. The Decathlon has such a forgiving nature that encourages experimentation that exponentially expands the fun factor. Messing around with "full crow" dialed in was pretty much amazing and low and slow inverted passes magnificent.

The Decathlon has some wing rock in harrier, but performs a seamless transition into hover. Mixing the flaps to move as ailerons helps counteract torque when in hover. Hovering the Decathlon reminded me more of an Extra and the DA 50 still had impressive punch pulling out considering it's size. The Decathlon will perform the majority of 3D maneuvers well, but was not purpose-built as a 3D machine.

I slowed things down experimenting with various flap settings and airspeeds. Stalls are like you'd expect from a trainer. Adding power and removing elevator will have the Decathlon out of a stall and flying again with minimal loss in altitude. The Decathlon slows down for landing wonderfully from the steepest of descents with full flaps. Keeping a little power on is required from time to time, depending on flap position and approach angle. Flaps are somewhat of a novelty on the Decathlon because it lands beautifully without as well. Three point landings are a thing of beauty; as were one and even two wheel landings. The flight controls maintained their effectiveness through the flair to touch down.

minum lift struts to the wing.

Prior to installing the DA 50 engine, the firewall must be glued into position. This is a much easier step than you might think. Using a template, locate, drill,



incorporated exhaust tunnel; however, it is very shallow. The intended MTW 75 exhaust canister didn't fit and ended up getting shelved for a Slimline Pitts muffler. The ignition unit was installed on a bed of foam and secured with zip ties.

Powering the ignition system is a Duralite Plus 7.4 volt 2600mAh battery and Duralite Digi switch with Rcxel optic ignition cutoff. The included carbon fiber spinner had to be drilled prior to installation. Polishing off the installation was a Vess 23A Prop and Vess balance ring.

For a radio system, I used Hitec's Aurora 9 with Hitec high voltage servos. All flight controls except rudder were equipped HS-5585MH servos and the rudder got a heftier Hitec HS-7954SH



servo. Most servos were equipped with the included Hitec heavy duty-servo arms except for the rudder servo that was equipped with a 4-inch rear swept arm. Beefy fiberglass control horns get epoxied into precut slots in their control surfaces. All flight controls except rudder used heavy-duty pushrods with ball links and the rudder uses a pull-pull system. The standard Hitec HS-5495BH servo fit into a laser cut servo mount that I mounted along side the fuel tank for a straightforward installation. An Optima 9-channel receiver with dual antennas was wrapped in foam and secured with Velcro straps as well as the Duralite Plus 7.4 volt 2600mAh battery pack.

THE LAST WORD

The Pilot RC Decathlon is an absolute blast to fly. The plane has a very light wing loading and the hearty DA 50 engine provided gobs of surplus power which makes for an exhilarating combination. The Hitec radio system worked flawlessly and gave piece-of-mind being able to monitor the airborne battery pack voltage from the transmitter. The Pilot RC Decathlon gives new meaning to "have your cake and eat it too"! It performs aerobatics with ease, will 3D, is a blast with interesting flap/aileron combinations, and touch-n-goes never get old. The Decathlon is a truly unique airplane that performed beyond my expectations. The kit is full of high-quality components with a focus on lightweight and maximum performance. Fit and finish is excellent, making this one of the best-looking Decathlons on the market. It says something about Chief's dedication to excellence with great tech support and free laser-cut replacement wood in the event of a crash which is unheard of elsewhere in the industry. If you hadn't noticed, I'm sold on the Pilot RC Decathlon and think it is an excellent airplane for the pilot who is looking for a "little more". ☺

We Used

TRANSMITTER
Hitec Aurora 9 2.4



RECEIVER
Hitec Optima 9 2.4



SERVOS
Hitec HS-7954SH on rudder, Hitec HS-5585MH on flight controls, Hitec HS-5495BH on throttle



ENGINE KILL
Rcxel optic engine kill



BATTERY PACKS
(2) Duralite Lithium-Ion 2600mAh 7.4 volt



ENGINE
DA 50cc gas



PROPELLER
Vess 23A



EXHAUST
Slimline Pitt's muffler



CONTACTS

- CHIEF AIRCRAFT** chiefaircraft.com, (877) 219-4489
- DESERT AIRCRAFT** desertaircraft.com, (520) 722-0607
- DURALITE** duraliteflightsystems.com, (877) 744-3685
- HITEC** hitecrd.com, (858) 748-6948
- SLIMLINE** slimlineproducts.com, (480) 967-5053
- VESS PROPELLERS** vessaero.com, (919) 872-5611

For more information, please see our source guide on page 113.