

BY JERROD KELLEY An Army Of Individual Components Combine Strengths To Produce A "Special Forces" YFZ One



If the mind truly is the most powerful weapon, then Tyler Pilz should be considered a brilliant force when it comes to building customized quads. He is as creative as he is driven. He's also undaunted by the task at hand and seems to show patience when others may cave. Maybe that's why he chose the "Special Forces" theme for his project Yamaha YFZ. The U.S. Army's Special Forces believe in creativity, boundless ideas, organization and strategic designs. It's a scheme that Pilz follows when he builds quads. By strategically adding parts and accessories, Pilz improves the overall quad from its stock form and constructs a unique masterpiece that showcases his creative side.

We last spoke with Pilz for the "Zombie-fied Z400" article in the October 2005 issue. We recently sat down with Pilz, who said he's an army of one. He said he builds these quads alone and relies on his aftermarket partners to make his concept a reality.

ATV Sport: How did you come up with this concept for the Yamaha YFZ450?

Tyler Pilz: I got the idea from the "Stealth Predator" (November 2004 issue) Ken Thompson built and I liked it. I decided to keep the black plastic theme but try to step it up a notch. The YFZ was the hot bike to pick

and the companies like Yamaha because of its popularity.

ATV Sport: Yeah, that was a sweet quad, but we love the "urban camo" you added to the YFZ. What made you select this branch of the military?

Pilz: I thought it looked cool and thought people would find it interesting. I was looking into the U.S. Army and military logos and saw the Special Forces logo and thought it would look cool on a quad. I actually own a special forces patch and found some on



the Internet, too. We [GOFORIT Graphics] based our design off those. I changed it to read: "Mess with the best and lose like the rest." We eliminated the word "die" from that phrase for obvious reasons.

ATV Sport: What were you shooting for as far as the overall design and certain features that you added to the bike?

Pilz: I wanted to build a racing theme, but something that would intrigue people. I also wanted to get product that not everyone has seen before. I wanted to build something different that normal people hadn't seen before. I don't necessarily like matching graphics to a bike, I like to be different.

ATV Sport: Why did you select the Pro Circuit exhaust?

Pilz: Well, because it's titanium, it saves



weight. Plus, it sounds better and I think Pro Circuit is one of the best exhaust manufacturers out there. The last bike I built was very heavy, so I wanted to save weight wherever I could.

I was going to build an all carbon fiber quad, but couldn't get carbon fiber to form to the ATV's geometry without paying upward of \$500,000 for a molding machine. Maier is coming out with carbon fiber plastic, but it wasn't finished in time for the project.

ATV Sport: Saving weight is always a topic of building a project ATV, so is that why you added the Ti shocks?

Pilz: I've always used Custom Axis suspension and I view them as one of the best shock builders out there. Custom Axis sent me a set of its prototype titanium piggyback shocks. So, yeah, I have one of 10 Custom Axis Ti shocks in the world — it's cool.

ATV Sport: We've seen the Herrmann Racing name more frequently in the last few years, and it seems to support ATV racing, is that why you selected its chassis components?

Pilz: Herrmann Racing has proven to me to be a worthy chassis componentry company. I wanted to use quality products and found some here. They said they could build the product and have it to me in three weeks, so that's saying something about their devotion to customers.

ATV Sport: How did the A-arms and swingarm match up to the prototype Custom Axis shocks?

Pilz: That's where the fun came in, because Custom Axis built the prototype shocks according to Herrmann Racing's A-arm and swingarm specifications. They fit perfectly and that was a welcome sight [at install]. When completely assembled, the combination of the shocks and A-arms together produced a killer team.

ATV Sport: What other unique features does this YFZ have?

Pilz: Basically, the other sub-theme to this quad is temperature control. I added an oversize, Intense Fabrication radiator that lets the water spend more time through the cooling fins compared to the stock radiator. I also added an induction system to the radiator. LightSpeed Performance sent me a carbon fiber tank cover and carbon fiber oversized radiator shrouds. I added a Quad Tech hood, for one, which improves flow and is meant to work in conjunction with the PC Carbon light block offs. They are designed to scoop air and bring more of it to the front of the radiator.

The front-mounted oil cooler takes hot engine oil and routes it through an oil cooler radiator and then sends it to the oil tank, where it rests and cools. Then, it's picked back up by the engine. Essentially, these changes should make the quad run at optimal temperature and not overheat.

Special Forces YFZ Specs

Rider/builder: Tyler Pilz
Sponsors: Custom Axis, Maxxis, Herrmann Racing, HardKor Engineering, Douglas Wheel, OMF, DuraBlue, Sidewinder Sprockets, D.I.D., Galfer, LightSpeed Performance, Quad Tech, Carbon Fiber Works, PC Carbon, Sudco, Boss Bearing, Maier, Renthal, Project 321, Boyesen, Read Racing, Trinity octane, Jagg, AC Racing, GOFORIT Graphics, Custom Dynamics, Rad Lites, Pro Circuit, Intense Fabrications, PowerMadd, Works Connection, Hinson, CP Pistons, Hot Cams, DynaTech, Bare Performance, Trail Tech, Terry Cable
Frame: Stock, gusseted and powder coated

ENGINE
Type: Single-cylinder four-stroke
Yamaha
Displacement: 450cc
Piston: CP Piston
Valves/cam/springs: Stock/Hot Cams/Stock
Carburetor/airbox: Sudco
FCR/CFM
Air filter: K&N
Exhaust: Pro Circuit Ti4
Fuel: 110
Oil: Maxima synthetic
DRIVE SYSTEM
Clutch basket/plates/springs: Hinson Racing
Transmission: Stock
Flywheel (weight, oz.): 6
Chain: D.I.D. X-Racing
Sprockets: Sidewinder Tri Metal
Clutch lever/cables: Terry Cable
stainless steel
Shifter: IMS

FRONT END
A-arms (width, in.) Herrmann Racing (+2)
Tierods: Herrmann Racing
Front shocks: Custom Axis
Piggyback Ti
Steering Stem: Herrmann Racing
REAR END
Swingarm (length, in.): Herrmann Racing (stock)
Axle: DuraBlue X33
Rear shock: Custom Axis Ti
TIRES/WHEELS/HUBS
Tires, front: Maxxis iRazr
Tires, rear: Maxxis iRazr
Wheels, front: Douglas Wheel Red Label w/OMF beadlock and reinforcing rings
Wheels, rear: Douglas Wheel Red Label w/OMF beadlocks and reinforcing rings
Hubs f/r: Hardkor Engineering

BRAKES
Callipers f/r: Stock
Pads: Galfer
Rotors f/r: Galfer Wave
Brake pedal: IMS
DETAILS
Handlebars: Renthal
Grips: Renthal
Handguards: PowerMadd "Black Chrome"
Nerfs/footpegs/heel guards: AC Racing
Bumper/grab bar: AC Racing
Skid plates/bellypan: Quad Tech carbon fiber
Body plastic/graphics: Maier/GOFORIT Graphics
Seat: Quad Tech "Hump"
Fuel tank: Stock w/Project 321 cap
Lighting: Custom Dynamics Hiper Strips LED, Rad Lites billet and strip LEDs



I also added a Carbon Fiber Works Black Ice carburetor guard. It protects the carb from overheating due to its close proximity to the YFZ's header pipe. It prevents heat from being transferred from the header pipe to the carb and also maintains a proper fuel temperature running through the carb.

ATV Sport: You improved the cooling, but did you improve the engine?

Pilz: A CP high-compression piston, Trinity Racing port and polishing and a Hot Cams intake and exhaust cam were added. These changes were done to improve overall performance. I also lightened the flywheel to provide even quicker throttle response.

ATV Sport: What were some difficulties you faced with this build?

Pilz: Getting product in on time is always an issue when you build a project bike. It depends on what products you receive and when. For example, if we received the shocks before we got the A-arms, we'd still need to wait before we could put either product on. The same goes with having the wheels and tires but no axle.

ATV Sport: How long do you estimate it took to build the quad from the ground up?

Pilz: It took roughly two months to complete it. However, it was one of the best project bikes, because everything went more smoothly than my last project. I was able to get products in my possession a lot faster than before, so it made the whole process quick and smooth.

I'm a one-man band. I'm as efficient as all get out. I'm amazed at what and how much I can build after I get off work. Zinc Inc. supplies the equipment needed to do the powder coating, including the oven, but I did the powder coating myself.

ATV Sport: Wow! You work alone? How much of that two months was spent

wrenching and tuning vs. waiting for product to arrive?

Pilz: Once I had all the product, it took a couple of weeks to complete the quad. The 14 LED strips take time to connect to one power line. It consumes much more time than you think, because, when adding LEDs, you actually have to install them so they function without interfering with the quad's operation and repair, if necessary.

ATV Sport: We haven't seen a ton of LEDs on the trail or track. Yet, you've included them on both your projects we've featured. What's your infatuation with LEDs?

Pilz: They are the best alternative to neon lighting. Neon pulls more amps than LEDs and are far less durable. And, if they can work on cars, they can work on ATVs. [I add LEDs] because a lot of people don't do it, when you meet someone on the trail who has LEDs on their quad, it catches your eye. If you can't be the fastest rider out there, you may as well look damn good doing it.

ATV Sport: Now what happens with this quad? Will you put it on display? Are you selling it?

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Pilz: Aside from being in your magazine and on a few Web sites, I will put it on display at the annual Indianapolis Dealer Expo show in February. And, yes, I will sell it after that.

ATV Sport: How much do you estimate this quad cost to build?

Pilz: It's around \$25,000, including the quad.

ATV Sport: Your first project was a Z400 and now you've done the YFZ, what's next?

Pilz: We are looking into another sport quad. We are thinking of a either building a law enforcement or fire fighter-themed quad. I am always thinking of new and

interesting ideas. Some of them you will be seeing very soon.

ATV Sport: Really, like what?

Pilz: Well, I'm still searching for a super model to pose on one of my project quads. I just haven't found her yet. **ATVS**

Contacts

Custom Axis — (610) 375-6180; www.customaxisshocks.com

Maxxis — local Maxxis dealer; www.maxxis.com

Herrman Racing — (215) 679-2410; www.herrmanracing.com

HardKor Engineering — (715) 369-7200;

www.hardkorengineering.com

Douglas Wheel — (800) RACE-RIM; www.douglaswheel.com

OMF — (951) 354-8272; www.omfperformance.com

DuraBlue — (949) 770-5533; www.durablue.com

Sidewinder Sprockets — (630) 513-1000;

www.sidewindersprockets.com

D.I.D. — D.I.D. distributor; www.didchain.com

Galfer — (805) 988-2900; www.galferusa.com

LightSpeed Performance — (714) 990-5767;

www.lightspeedperf.com

Quad Tech — (949) 859-7823; www.quadtech-atv.com

Carbon Fiber Works — (866) 762-2622;

www.carbonfiberworks.com

PC Carbon — (909) 928-2404

Sudco — (323) 728-5407; www.sudco.com

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