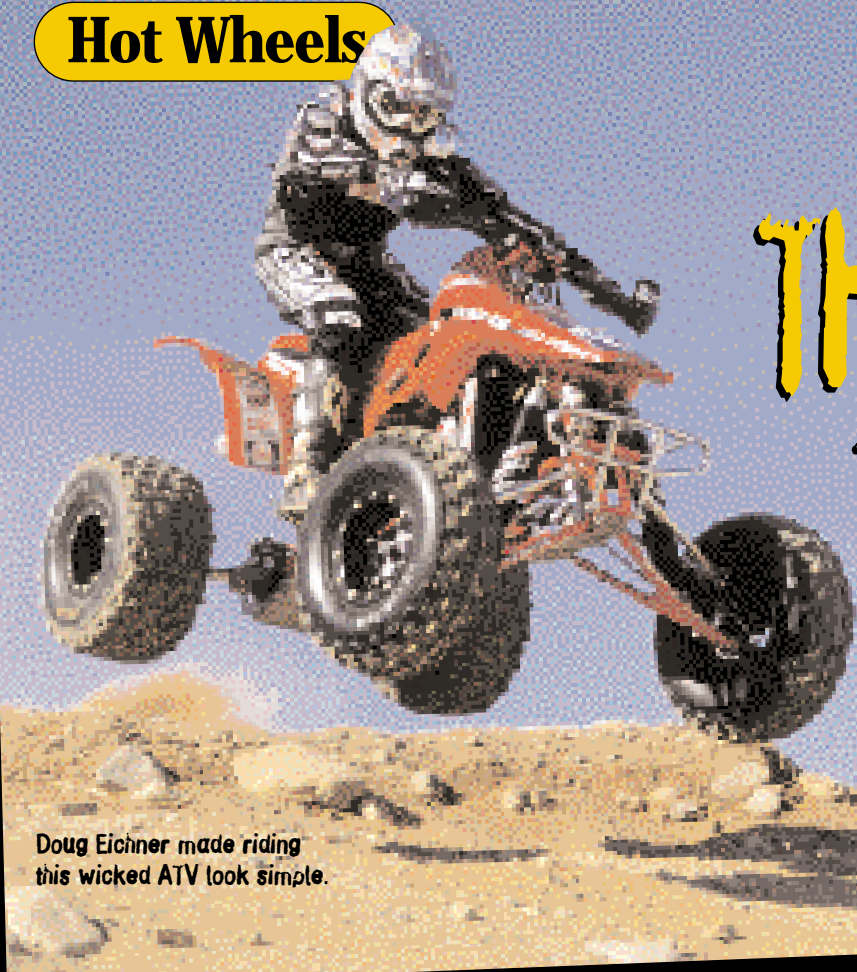


Hot Wheels

BEST IN THE DESERT

This Duncan Racing/Roll Design Race Machine Can Kick It!

BY DOUG MEYER



Doug Eichner made riding this wicked ATV look simple.

If you've ever gotten on the wrong side of someone, there's a good chance that you've heard the phrase, "Go pound sand." While this expression is often mistaken as a disgusting put down, it is actually anything

but. However, it's still a disgusting put-down. If you have ever ridden for miles up a sand wash, being pulled this way and that by the ruts torn into the sand by previous race vehicles (especially those big trucks); or tried to hang on to a bucking quad in the face of an endless

string of whoops, then you'll realize just how dirty a put-down "Go pound sand" really is. But that's desert racing. Even at its best it's a bone-jarring, gut-wrenching, slow form of torture. At its worst, it's a lot like being handcuffed to the Terminator — through both



This desert racer — complete with Duncan Racing, Roll Design and Paul Turner engine mods — can really scream.



Up front the 51-inch wide quad has Roll Design +3 A-arms and steering stem, Custom Axis suspension, and Tag Metals CR500 handlebars.

movies! Except the experience lasts longer and you are constantly reminded of the fact that you chose to do it!

A desert racing ATV is definitely a unique machine: its tall stance, big lights, and its bulbous gas tank typically make the ATV instantly recognizable as a long-distance desert thrasher. The thick seat and gangly appearance mean there's absolutely no mistaking it for a stadium racer, that's for sure.

But if you think all desert racers are the same, then you need to go pound sand. A winning desert ATV is no more like a typical racer's ATV than Rusty Wallace's Ford Taurus is like the one sitting on the lot at Roger Penske's Auto Mart.

We recently got a chance to look over the winning desert ATV of racers Doug Eichner and Steve Beilman. To put "winning" in its proper perspective here, consider the fact that they have now won the last four long-distance desert races they have entered, including the last three of the "Best of the Desert" series, as well as the 24-hour Off-



Here's a close up of the Honda 250 Duncan/Paul Turner "Eliminator" engine that has a bore & stroke of 66mm X 72mm.

Road Endurance Championship.

We met up with them out in the Anza-Borrego desert for a close look and a ride. We discovered that even among desert racers, there's a big difference in machines. But considering this racer was built by Duncan Racing and Roll Design, that should have come as no surprise.

The racer is built around a Roll Design frame constructed from chromoly tubing and gusseted at all stress points. To the frame are bolted Roll's three-inch wider (camber and caster adjustable)

A-arms at the front, and his special (Honda '86-length) swingarm on the rear. Adjustable reservoir, Custom Axis shocks are used at both ends.

Nobody seems to know (or say) just how much wheel travel this thing has, but I know how Doug Roll thinks. Although I've always subscribed to the "longer is better" school of thought,

Doug Roll has reminded me time and time again that it isn't the length of the travel that matters, but what you do with it that counts. Hmmm.

The performance of this machine through the desert can attest to the validity of Doug Roll's thinking — especially if that desert is covered in whoops. Although handling is nothing phenomenal at normal speeds, the greater the velocity, the better it handles. For that evaluation I'll take Eichner's and Beilman's word.

A couple of other items very important in

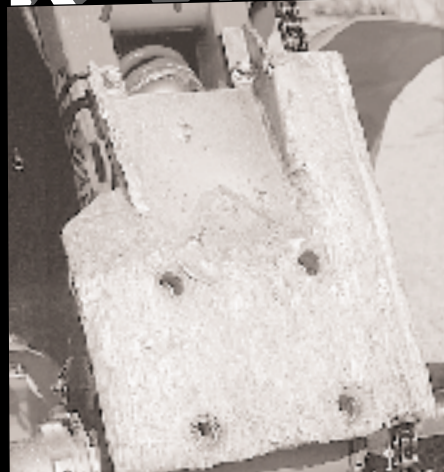
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controlling this ATV at speed are the TAG Metals handlebars (CR500 bend) and the Golden West Cycle long-throw stabilizer. The bars are a bit wider than stock 250R-style bars — for better leverage — and are bent back farther at the grips — for comfort over long distances. The big stabilizer really keeps the ruts and rocks from yanking the bars out of your hands.

One thing that's missing on this racer is a tethered kill switch that is typically found (and required) on most racers. When asked about this, Beilman commented that, first, there's nobody to hit in the desert when you come off. Second, when a desert racer crashes, he rarely wants to hop right back on!

For tires, Eichner and Beilman run GBC Shredders front and rear (22 x 8-10 fronts, and 20 x 11-9 rears). They are mounted on Douglas Ultimate wheels with AC Racing reinforcement rings. Slime tire sealant fills all tires for added flat protection (a real must in the desert).

Powering this amazing racer is a comparably "normal" high-performance 250R engine — if you can consider any Duncan-



In the desert, swingarm protection — as well as a full-length skid plate — is a must-have device, as you can see. This Roll Design model has held up well.

built engine normal. The engine, a Duncan/Paul Turner "Eliminator," retains the stock rod and uses a stock-size Pro-X piston for a stock-sized displacement of "only" 250ccs.

It does include some pretty trick pieces

though, including a Paul Turner Pyramid reed valve and special head, as well as a 39PWK carb and a Paul Turner "Race '98" pipe and silencer. Fastened to the engine is also a billet aluminum kick starter and a special aluminum shifter (due to the footpegs being located about an inch lower and further back than a stock 250R).

While there are a lot of individual pieces that go into building a full-on desert racer, the trickiest parts are the things not easily noticeable by the inexperienced eye. Or at least an eye not used to looking for the secrets that can make the difference between running first and finishing first!

Some of these things are "desert no-brainers," such as both cables (throttle and clutch) having a back-up zip-tied along side the working one as a spare, or dual black boxes ready to be plugged in. Or dual coils for that matter.

But some things are not as easily noticed, such as every single bolt and clamp and hose being tie-wired. Plus, every bolt and nut is Locktightened and a small dab of paint marks

SPECS

Frame:

Manufacturer — Roll Design
 Wheelbase — 49.8"
 Width — 51"
 Weight — NA

Front End:

A-arms — Roll Design +3
 Spindels — 250R
 Brakes/brake lines — Fastline
 Shocks/travel — Custom Axis
 Steering stem — Roll Design
 Stabilizer — Golden West Cycle "Long Throw"

Rear End:

Swingarm/length — Roll Design Honda '86 length
 Rear Axle/ carrier — RPM Dominator
 Shock/travel — Custom Axis
 Brakes/brake lines — Fastline

Wheels & Tires:

Front tires — 22 x 8-10 GBC Shredders
 Front wheels — 10x6 Douglas Ultimate .190 with AC Racing reinforcing rings
 Front hubs — Duncan billet aluminum
 Rear tires — 20 x 11-9 GBC Shredders
 Rear wheels — 9x9 Douglas Ultimate .190 with AC Racing reinforcing rings
 Rear Hubs — DuraBlue

Controls:

Handlebars/ clamp — TAG Metals CR500
 Throttle/ cables — Motion Pro

Misc:

Pegs/ nerfs — Roll Design 1" down and 1" back
 Ft. bumper/ rear grab bar — Duncan Racing
 Skid plates — Roll Design
 Lighting — Ricky Stator Aluminators

Power System:

Engine type — Honda 250 Duncan/Paul Turner "Eliminator"
 Displacement — 246cc
 Bore & stroke — 66mm x 72mm
 Piston — Pro-X
 Head — Paul Turner
 Carburetion — 39 PWK
 Intake manifold — Paul Turner Pyramid reed valve
 Airbox/filter — Roll Design, K&N
 Pipe/silencer — Paul Turner "Race '98"
 Fuel type — Trick

Drive System:

Clutch — Hinson
 Chain — Tsubaki
 Front sprocket — Sunstar 14
 Rear sprocket — Sunstar 38

them so they can be easily checked for signs of loosening.

But there's more — like the skid plates having spacers welded to the bottom so that the ever-damaging rocks can't shear the heads off during the race. If there is any item that gets pounded beyond belief (other than the rider) it's the skid plates!

Other items can really help win races as

well, such as the IMS "quick-fill" tank that has been "expanded" to around five-gallons. And the K&N air filter tucked inside a Roll-Design air box accessible by quick-pins rather than a (standard) latch system.

Perhaps the most important accessory to a desert team though, is its pit crew. Eichner and Beilman rely on four guys who (race!?) to each pit: one to gas the ATV and hand over

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clean goggles (if needed), one guy on each side of the ATV to check over nuts, bolts, and tires (changing them if necessary), and one guy they call "Jim-jack" whose job it is to check the chain and lift the ATV up if any of the tires need changing.

Considering some 250-mile races are won by just minutes, the time saved in the pits can indeed prove crucial to a win or a good finish. The race to get from one pit to the next is often as harrowing (and fast) for the pit crew as it is for Eichner and Beilman. Both racers often have to ride two sections of the race to give the "other" rider time to get to the next pit and ready to ride.

So, while a successful desert racing team consists of not just a pair of good riders but a competent pit crew, the ATV is not just a collection of parts that make it go fast and handle great, it needs to be a well-prepared one as well. This Duncan/Roll machine definitely excels in the details, and Eichner and Beilman have a winning record to prove it. ■

Beilman decides to do a little dusting.



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