



Air time! No, this isn't Doogie...it's Tavis. We know people would get confused, since their riding styles are so close to one another.

Berm blazin'! Slip the clutch, move your weight back, and let 'er rip! That's what you have to do when riding a GNC-prepped racer like this one.



# DUNCAN RACING/LOBO PC2000 GNC RACER

## Testing Tavis Cain's new race quad

Last year, Duncan Racing's Tavis Cain broke a GNC series record when he completely dominated the TT class by winning every single round in the 250A class. In addition, Tavis, a highly skilled amateur racer, also raced in the extremely competitive 250 Pro-Am class—a class that has plenty of top pros competing. He finished second overall behind reigning Pro champ Jeremiah Jones.

Tavis will be graduating to the Pro class this year and he hopes to build on his experience in the 250A and 250 Pro-Am classes. Plus, he's got a brand-new machine to

ride—an '02 Duncan Racing/Lobo PC2000 racer.

We met up with Tavis right before the start of the season for a test session with his new machine. We went to Competition Park in San Jacinto, California (contact: [909] 654-2126) to take the pictures as well as give the machine a shakedown run of our own.

### BUILDING A BETTER RACE QUAD

There are two key components Tavis' race machine is built around—a Lobo chassis and an '02 Duncan Racing PC2000 Power Valve 265cc engine. We'll start with the chassis first.

### LOBO CHASSIS

There are three specific versions of the Lobo chassis—a Motocross, a Cross Country, and a Desert model. Obviously, Tavis is using the MX version. The Lobo chassis kit used on Tavis' race quad includes the frame, a removable sub-frame, swingarm, upper and lower control arms, tie-rods, steering shaft, front and rear Axis shocks matched to the Lobo chassis' geometry, and all the necessary hardware.

The frame is constructed from 4130 aircraft grade chromoly, as is the subframe, steering shaft, the front suspension arms and swingarm.

The frame, suspension arms, and rear swingarm on Tavis' bike feature a tough powdercoat finish. Front suspension travel comes in at 10.75 inches while the rear measures out at 11.25 inches.

### DUNCAN RACING PC2000 POWER VALVE

The Duncan Racing PC2000 Power Valve 265cc cylinder used in Tavis Cain's racer is a work of art. Here's how the Power Valve system

works: the cylinder is designed around an exhaust pressure-sensitive power valve which does two things. The power valve alters the exhaust port timing to give the engine better low rpm power (with the valve closed) while still giving the engine good mid- and high-rpm power characteristics (when the valve is opened). The power valve also effects engine compression. When the power valve is closed, compression is at its highest, giving the engine better low-rpm torque. When the Power Valve is open, compression decreases, which allows the engine to pull higher revs.

Essentially, you get an engine that produces a very smooth powerband with strong power at lower revs without sacrificing midrange or top-end power. The power valve design has kept smaller displacement two-strokes competitive against larger displacement punched-out 440cc four-strokes.

Internally, the PC2000 features a three-port exhaust arrangement (one main, and two secondary ports), and has 50-percent more cooling capacity than an OEM cylinder. In addition, the PC2000 is equipped with a CNC machined billet head. The head features increased cooling fluid capacity, an interchangeable dome to adjust compression, and an O-ring seal.

Another key feature of the PC2000 cylinder is the use of a Nikasil lining. The Nikasil lining is extremely strong and features very good wear characteristics. The lining is so tough that the cylinder can be virtually run with no coolant and will not seize up like a typical cylinder would—although Duncan Racing doesn't recommend anyone try this!

### ALL THE EXTRAS!

If we were to list all the parts featured on his machine, by the time we were done, he'd be riding next year's machine. Check out the spec chart for every goodie on the racer. What we can tell you, though, is that if you're looking for a cleaner race machine, you'd have to look pretty far to top this one.

For more info on Tavis Cain's bike, contact Duncan Racing at (619) 258-6306.





# DUNCAN GNC RACER

## RIDER/SPONSORS

Rider: Tavis Cain

Title sponsors: Duncan Racing/Roll Design/IMS/Golden West/ITP

Associate sponsors: Temecula Motorsports/Hinson/Douglas Wheels/Paul Turner Racing Engines

Co-Sponsors: Axis, Tsubaki, TAG Metals, Maxima, Outerwears, One Industries, Motion Pro, Braking, Sunstar

Team Sponsors: O'Neal, Smith goggles, Winex helmets

## MACHINE

Quad ..... 2002 Roll Design Lobo MX w/Duncan Racing PC2000 package kit

Frame ..... Roll Design Lobo

Weight ..... Approx. 350 lb.

### ENGINE

Builder ..... Loren Duncan

Cylinder ..... PC2000 Power Valve w/Nikasil bore

Displacement ..... 265cc

Bore x stroke ..... 68.5mm x 72.0mm

Piston ..... PC2000 265cc

Compression ..... Variable (depends on track conditions)

Carburetor ..... Kaihin 39PWK w/DR Super Flow mod

Reed Cage ..... Pyramid Reed Valve (PRV-100)

Ignition/timing ..... Hinson billet balancer holder/standard timing

Cooling ..... Stock OEM Honda radiator w/stock hoses

Spark Plug ..... NGK Indian BR9-IX

Airbox/filter/oil ..... OEM style plastic airbox/K&N/Maxima Fab-1

Pipe & Silencer ..... Paul Turner Eliminator '98/Fatboy 2

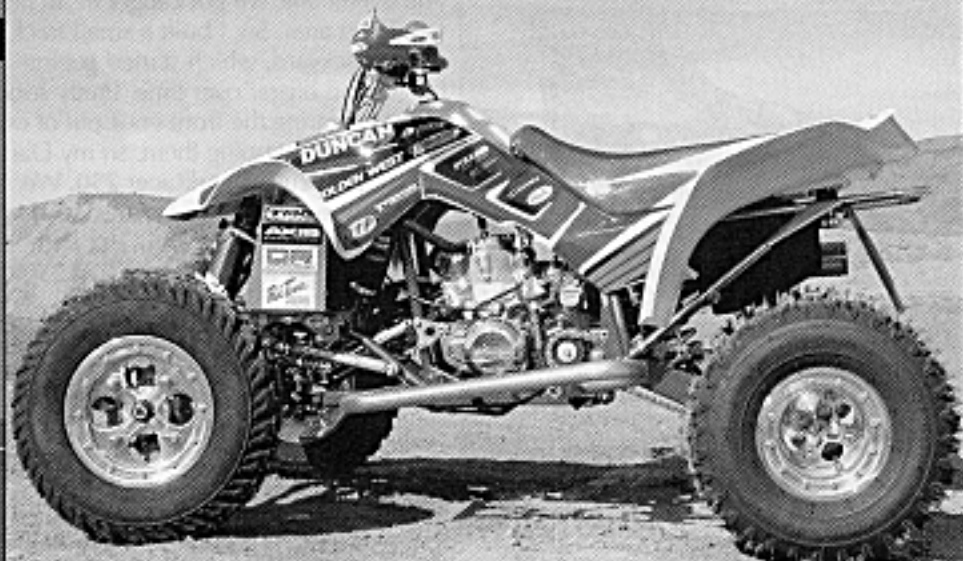
Fuel ..... VP C12 or MR2/Trick Aqua 112

Norf bars ..... Roll Design

Front bumper/grab bar ..... Duncan Racing/Built-in on Lobo chassis

Skidplates ..... None

Seat ..... OEM Honda foam w/One Industries Duncan Racing cover



Tavis Cain's Duncan Racing/Lobo PC2000 race quad.

Body plastic ..... OEM Honda

Footpegs ..... Roll Design

### DRIVE SYSTEM

Clutch basket/plate/springs ..... Hinson 8-plate/DR-C12B (plate & spring kit)

Transmission oil ..... Maxima MTL 10w/30w

Starting system ..... Kick

Chain/lube ..... Tsubaki Omega D-ring/Maxima Chain Guard

Sprockets (f&r) ..... Sunstar

Gearing (f&r) ..... 15/38

### FRONT END

A-arms/width ..... Lobo/50"

Spindles ..... Honda OEM 400EX

Front shocks ..... Axis/Lobo

Steering stem ..... Roll Design w/Stainless Steel head

Steering stabilizer ..... Roll Design

### REAR END

Swingarm/length ..... Lobo/17.5"

Rear axle/width/carrier/axle nut ..... Dominator/49"/BMS Twin Row/Densi or BMS

Rear shock ..... Axis/Lobo

### TIRES/WHEELS/HUBS

Tires f&r ..... ITP Holeshots

Tire size f&r ..... 20"18"

Wheels f&r ..... Douglas Shamrock Ultimate

Wheels w/beadlocks ..... Hinson/Douglas

Hubs f&r ..... Duncan Racing billet

### BRAKES

Calipers f&r ..... OEM Honda 400EX/OEM Honda 250R

Pads f&r ..... Braking

Rotors f&r ..... Braking Wave

Brake lines f&r ..... Crown Series

Brake fluid ..... Maxima 550

### HANDLEBARS/CONTROLS

Handlebars/bend/clamp ..... TAG T2/CR-Hi/Roll Design (integral w/stem)

Throttle ..... OEM Honda 400EX

Clutch lever/OEM Honda CR250 (perch and lever)

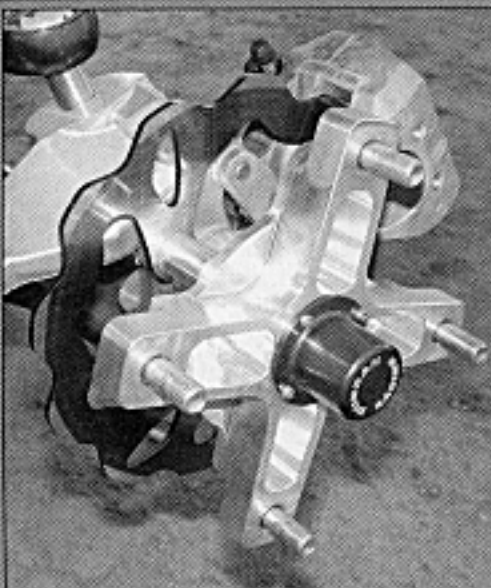
Cables ..... Motion Pro (throttle and clutch)

Grips ..... Renthal (medium grip)

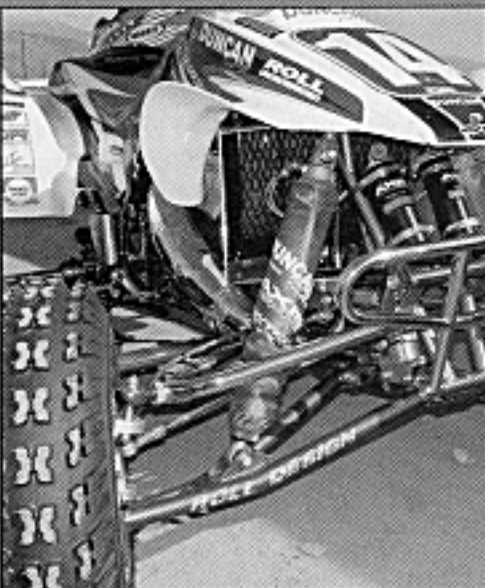
Tether kill switch ..... Pro-Design

### OTHER TRICK GOODIES

DR quick-change clutch cover, DR master cylinder guard, DR kickstart, DR throttle cover, DR shifter, Hinson brake pedal, BMS heavy-duty transmission gear set, One Industries/Duncan Racing graphics kit.



Check out Braking's new wave front discs—they really help bring the machine down from speed in a hurry.



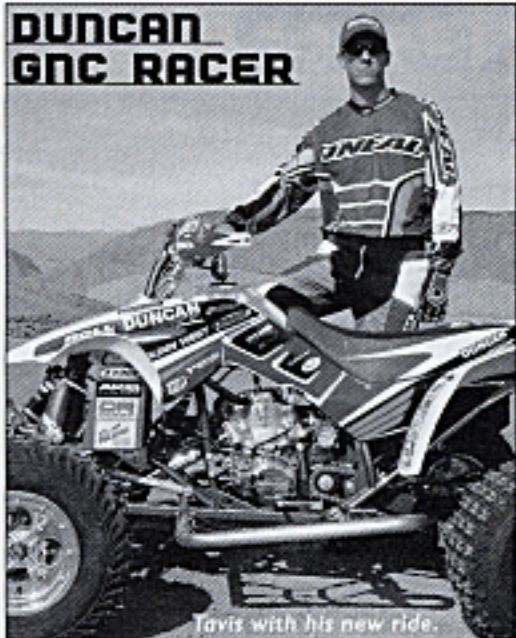
Roll Design's Lobo chassis comes with a matched set of Axis shocks.



Duncan Racing's PC2000 Power Valve cylinder takes two-stroke technology and gives it the "oomph" it needs to keep up with the larger four-strokes that are hitting the racing scene.



## DUNCAN GNC RACER



Tavis with his new ride.

**Tavis:** I first started off riding my dad's Kawasaki Prairie. My friends and I would go out riding trails in the woods, and eventually, we got caught in an illegal riding area. So, I built a small track in my backyard, which started getting bigger and bigger over time. Pretty soon I started tearing the front ends out of our utility quads jumping them, so my Dad got me a Suzuki QuadRacer 250. We ended up pushing it off the track every single weekend, so he went out and helped me get a Honda FourTrax 250R instead.

**ATV Action:** You won the 250A title pretty easily last year, and you finished second in the 250 Pro-Am class. Tell us a little about how last year went down for you.

**Tavis:** The MX portion started out pretty well for me last year. We went out and I won the opener, but then some bad luck kicked in. After that first win, I was in the lead for pretty much every race but I had either a mechanical failure, or I just crashed out of the race. I ended up winning three rounds in the MX season. But then when TT started, I won every single round in the 250A division. In the Pro-Am class, it's a little tougher because a lot of the top pros drop down to race the class. I did fairly decent, though—I didn't win any of the TTs, but I won one of the MX rounds against the top guys.

**ATV Action:** You and Dana Creech are known for your wild jumping style.

Many people have put you guys into a category of a New Breed of ATV Racers. Do you think that your riding style will affect how people race quads in the future?

**Tavis:** To a certain extent, I'd say yes. There are a lot of people who want to step up to the level of where Dana and I are as far as jumping is concerned. Dana is more known for going pretty big. He's usually the guinea pig when we get to a new jump that we're not sure if it can be done. He's usually the first one to do it, and then I'll follow him. I'm really not known as a big jumper, though—I only do it if I know I can do it. Even at the MX races, I will watch someone attempt a jump before I do it.

**ATV Action:** So how do you like your new bike?

**Tavis:** I think it's really, really good—it's one of the best looking bikes out there! I really like the new Roll Design footpegs and the new Braking Wave rotors, and Loren's new Power Valve cylinder is pulling even harder than last year's. I'm really looking forward to the start of the season.

**ATV Action:** What are your expectations moving up to the pro ranks this year?

**Tavis:** My goal is to make the top five overall by the end of the MX season. I've set my expectations high this year, and next year I'd like to go after the title. I'm also going to go after the TT title this year as well.

## RACER PROFILE: TAVIS CAIN

**Age:** 21  
**Hometown:** McKinleyville, CA  
**Been riding ATVs for:** 12 years  
**Turned pro:** This year  
**Titles:** '01 250A overall champion, finished second overall in 250 Pro-Am class behind Jeremiah Jones  
**Hobbies:** Snowboarding, wakeboarding, Jet-Skis  
**What CD is in your car right now?** Hed

**ATV Action:** While we were out shooting the photos, your dad mentioned that you got into racing because you kept destroying his utility quads. What's the deal?



ATV Action's John Howell gets set to dirty-up Tavis Cain's new ride during our test sessions at Comp Park.

The photo-shoot of Tavis Cain's brand-new machine wouldn't be complete until we rode it!

Our own editor John Howell took the new racer out for a few laps at Competition Park to see how it handled.

I waited until the track had cleared up a bit (it seemed like everyone in SoCal turned out that day to go riding!), and I headed out. I was warned that the new Braking front Wave brakes were on the touchy side and were still breaking in, so I had to be extra careful due to the added sensitivity.

I pulled out on track and rolled all the jumps and whoops for the first lap.

I quickly found out that they weren't joking about the front brakes being sensitive. I also noticed that the steering and suspension were still pretty tight and needed a few more hours of track time until they would be fully broken-in.

After I felt I had learned the layout, I started pushing a little harder lap by lap. Pretty soon I was jumping all the tabletops, but it was hard to get going really fast since there were so many people on the track. I was particularly fond of the larger tabletop near the entrance of the track where you could launch it the best—if you hit it just right it kicked you straight up and out a good 30 feet or so. The suspension, even on the stiff side, soaked it up perfectly. This was the first Lobo chassis I had ever ridden, and now I know why so many people hype up Doug Roll's work—it's awesome!

As for the motor, Duncan Racing's PC2000 power valve engine is like no other I've ridden. The Power Valve allows the engine to make more power at a lower rpm than your average two-stroke. It comes on much earlier and

makes more rideable power lower than I expected. You don't have to work as hard to ride this machine as you would with a typical two-stroke quad. There's no doubt that it would take much less energy to race this during a 20-minute moto!

Right as I was starting to get into a good rhythm, some kid bailed right in front of me on his bike, so I had to ditch off the track to avoid hitting him. I was extremely worried about crashing Tavis' bike! I could only envision heading back to the pits with this kid's KX80 rear tire wrapped around Tavis' front bumper...Unfortunately, the side I ditched to had a gnarly mud-puddle right in my path, and I splashed right through the center of it—so much for Tavis' clean new bike!

I rode back to the pits, and as soon as I pulled into our spot, Tavis, Greg, and Fred all started shaking their heads in unison. "What happened!?" joked Tavis. "You just had to go out and really break it in for us, didn't you," added Fred. I knew I wouldn't be able to live it down. "This little kid bailed in front of me and I didn't want to hit him," I explained. □