

MACHINES

- 18 2021 CAN-AM COMMANDER XT-P 1000**
A classic Can-Am gets a big dose of sport!
- 28 2021 POLARIS SPORTSMAN 850 ULTIMATE TRAIL EDITION**
A superbly equipped 4x4 quad
- 40 2021 SHOOTOUT: KAWASAKI TERYX KRX 1000 TRAIL EDITION VS. POLARIS RZR XP 1000 TRAILS & ROCKS**
Which non-turbo rules the trails?
- 60 ZBROZ CAN-AM DEFENDER PRO ADV BUILD**
You can't beat this "Stepchild"!
- 68 DUNCAN RACING ATC 250R DREAM MACHINE**
A superb ATC built to ride wooded trails!

FEATURES

- 52 2021 ATV SX AT DAYTONA**
Wienen continues his roll of Daytona wins
- 76 COOLING SYSTEM TIPS AND TRICKS**
Don't let your machine be a hot head

PRODUCTS

- 82 APROVE INTRUSION BARS**
Keeping stuff from coming through the window!

DEPARTMENTS

- 08 OVER THE BARS**
- 16 WIDE OPEN**
- 50 DW SUBSCRIPTION**
- 84 LETTERS**
- 90 DIALED IN**
- 92 HOT STUFF**
- 95 AD INDEX**
- 96 PARTING SHOT**



ON THE COVER: We had a week with the all-new Can-Am Commander XT-P 1000. It will be in the thick of things in the sport-rec class. It has a new chassis and body style with much greater suspension travel. It definitely raises the bar for the Commander line.
Inset: Dedicated trail machines from Kawasaki and Polaris face off to see where they excel.

THIS PAGE: Our photo ace Pat Carrigan froze this shot of ultra-talented Josh Row throwing sand on a Duncan Racing-built ATC 250R.

WARNING: Much of the action depicted in this magazine is potentially dangerous. Virtually all of the riders seen in our photos are experienced experts or professionals. Do not attempt to duplicate any stunts that are beyond your own capabilities. Always wear the appropriate safety gear.

PAUL TURNER NATIONAL 1985 HONDA ATC 250R

Duncan Racing builds another beauty

By the staff of *Dirt Wheels*
Photos by Pat Carrigan

□ Gambling is all about knowing the odds. If you understand odds, there are bets so safe, they hardly meet the definition of the word "gambling." *Dirt Wheels* can't possibly know anything specific about your significant other, but we can safely wager they have never gotten you a gift like this sublime 1985 Honda ATC 250R. Sure, maybe some of you have, but knowing the odds, we feel pretty safe with this blanket statement. After all, this is no ordinary barn-find

ATC. It isn't even a 100-point original restoration.

It is what hot rodders call a "resto-mod." Duncan calls it "a restoration keeping with an original theme." A machine that has an original look and style, but where the performance is boosted and any weaknesses in the original design have been rectified. This was a ground-up build that required 200 hours of work by the talented team at Duncan Racing International. The end result is superb, and

while it looks very stock, it isn't nearly as original as it looks.

The project began when Kevin and Tara purchased a 1985 Honda ATC 250R and had it shipped to Duncan Racing. They asked DR to do what they could to restore the trike to original and install the Paul Turner Racing National engine kit. Duncan Racing sent regular updates and pictures on the progress. The completed machine arrived in Pennsylvania in January 2021.



Three-wheelers are super fun to do wheelies on, and the Duncan ATC 250R is no exception. It helps to be massively talented like Josh Row.

ATV PROJECT



Top: Duncan Racing International did an amazing job on the fit and finish of this machine. It looks somewhat stock but has massive power.

Bottom: From the front, the Duncan ATC looks mostly stock. Everything on the machine is either rebuilt or replaced. The replica stock plastic is from Maier.

WHAT IT TAKES

When the vintage ATC arrived at Duncan Racing, it was pulled completely apart with no nut or bolt left fastened. This machine was apparently in good condition. The frame required no real rebuilding, welding or gusseting. It did need to be stripped, sand-blasted and inspected for cracks. Only then was it powder-coated Bengal Red. Slowly and carefully the ATC was rebuilt starting with the refurbished frame. A stock ATC 250R fork was rebuilt and mounted to the frame. All of the hardware is re-plated, pow-

der-coated or replaced. The front hub was also rebuilt and powder-coated.

The stock '85 swingarm was in decent condition, but Duncan chose to upgrade the swingarm, rear bearing carrier, axle and rear brake caliper to 1986 ATC parts or specifications. Duncan believes the '86 parts are "superior in function to the '85 model." A stock 1986 swingarm was rebuilt and refinished. Instead of other stock parts, the swingarm was finished up with an RPM 49-inch Dominator axle, bearing carrier and anti-fade nut. A stock rear shock was fully rebuilt and refinished

before the parts were added.

Again, powder-coated, rebuilt standard hubs are used in the rear. The brakes are stock as well, but they use EBC pads and Duncan Racing Crown Series brake lines. The rear also needed a Sunstar sprocket and an RK 520 O-Ring chain. Stock rims were powder-coated to look like the stock anodized aluminum rims. Stock tires were not in the plan. A Carlisle 23-inch front and 20-inch Tech4 rear tires were mounted up.

We tested the fully rebuilt ATC at Dumont Dunes, so the fabulous stock



Three-wheelers are also a little easier to get some jump style on than a modern quad. The ATC almost looks like a restoration but packs a national-level race engine.

wheels were replaced with DWT wheels and Skat Trak dune tires for more fun in the sand.

While they were fitting up the back of the bike, a stock airbox was mounted up, but it was filled with a K&N filter element with an Outerwear cover.

FINISHING UP THE CHASSIS

At the front of the machine, Duncan remounted the stock radiator. A Renthal ATC-bend handlebar was fitted with ODI grips, a refurbished stock thumb throttle and a Works Connection clutch perch. All of the

stock skid plates were refreshed and mounted. The ATC is so bright and smooth that you would think it was fully refinished.

Part of that immaculate appearance is thanks to an OEM-replica sticker kit, but mostly because all of the body parts were replaced.

That process started with a stock capacity, stock color Clarke Manufacturing plastic tank. Maier OEM replacement tank scoops were added to the tank. The front and rear fenders are also Maier OEM-style plastic, and so is the front headlight

cover over the original headlight. The seat has an OEM original cover. The stock shifter, kickstarter, footpegs and rear brake pedal were all powder-coated before being remounted on the chassis or engine. All of the powder coating was handled by Powder 1 in El Cajon, California.

BUILDING THE MOTOR

While the chassis was on its journey, the ATC's liquid-cooled two-stroke engine was on its own mission. It was blown completely apart for a complete rebuild that included

ATV PROJECT



Top: This Duncan ATC is hard to get out of a turn without the front wheel in the air. The paddles were temporary. The owner ordered stock wheels and knobbies for trail use.
Bottom: Duncan upgraded the ATC to a later swingarm and linkage. The axle and all associated hardware are aftermarket parts.

a new piston, rod, bearings, seals and more. Before the building started, the cases and cylinder were stripped, sand-blasted and powder-coated. All of the stock hardware was freshly cadmium-plated.

It may sound odd for Duncan Racing to perform a Paul Turner Racing engine upgrade. Paul Turner was an accomplished two-stroke tuner and engine builder in the '80s. During part of that time he was part of Team Honda, and the build on this ATC 250R is very similar to the kits used by Team Honda ATV racers in the '80s. After spending many years as a tuner and pipe builder, Turner sold his business to Duncan Racing International.

The Paul Turner National Kit includes a chromed Paul Turner ATC High Rev pipe and a Fat Boy 2 silencer. The pipe and silencer joint was ably sealed with a Duncan billet pipe clamp. It fully seals the joint so it doesn't leak exhaust or drool juicy black stuff on



Top: Clarke has a stock replacement plastic tank that stands in for the stock tank. It looks great and fits perfectly. The shrouds are Maier.
Bottom: While the ATC looks pretty original, very little remains of the stock engine. Stock parts are the cases, transmission and part of the crankshaft.



Josh Row was able to spend a lot of time on the rear wheels whether he was riding wheelies like this or while exiting turns.

this immaculate machine.

The kit also has National porting, a Duncan-modified Keihin carburetor and a Pyramid reed valve. Duncan rebuilt the stock crankshaft with a Pro-X rod kit, and mounted a Pro-X piston on the connecting rod. Every bearing, seal and wear part was replaced.

Another sign that the original bike Duncan started with was in good shape; the transmission was rebuilt and not replaced. An ignition upgrade boosted the electric output to 200 watts. Little of the stock clutch was employed. Hinson made the billet, hard-anodized clutch basket with new cushions. The plates inside are a Duncan clutch kit.

This is literally an engine that would have won national races in the 1980s, so it must drink VP C12 race fuel mixed with Maxima K2 at 32:1. All of the other fluids were sourced from Maxima as well.

WHAT IT'S LIKE

A new machine can easily handle a short ride in dunes without losing the immaculate finish, so we had a small window to shoot action photos. ATV pro Josh Row did the riding for photos, and we spent a little time on the machine as well. For our outing, there hadn't been much wind, so the dunes were UTV-chopped to serious roughness—far from the best conditions for a three-wheeler. Still, the ride was fun, the engine was blisteringly fast, and we remembered the glory years of three-wheelers. What really matters isn't what we thought of it; it matters what Kevin and Tara think: "We were expecting something amazing, but when the trike came out of the delivery truck, we were completely blown away. It was a perfect showroom restoration. They exceeded all of our expectations. There was not one detail missed. It runs fantastic. It has better-than-original power that is always there when we need it.

"If you want something done right and high grade, then Duncan Racing is where you need to go. They make the process so easy. Nothing is rushed, and they listen to every request."

WE STAND AMAZED

We see very few builds of this quality, and when we do, most are headed for display in a climate-controlled room. They are not ridden, but like some of the other extreme builds we have seen recently—and many are Duncan customers—this ATC is headed for eastern woods trails. Trails that have rocks and mud! We are grateful for those who keep ATV's living history alive in perfection in glass cases and carpeted rooms. But, we must applaud people like Kevin for hitting trails on a flawless and expensive build like this one. We have even more respect for his wife Tara who knows the time, the cost and the rarity of the machine, and still lets it be ridden!

ATV PROJECT

This machine is a real thing of beauty. It amazes us that the new owner is riding it on the challenging trails of Pennsylvania!

PARTS AND SUPPLIERS

CLARK MANUFACTURING:

www.clarkemfg.com

Stock capacity tank: \$240

DUNCAN RACING INTERNATIONAL:

(619) 258-6306, www.duncanracing.com

Paul Turner Racing National midrange kit: \$1599

Pyramid reed valve: \$199

Keihin PJ 34mm: \$225

Turner ATC high rev chrome pipe & Fat

Boy silencer: \$799

Pipe clamp: \$49.95

Complete engine rebuild: \$595

Crankshaft rebuild w/ProX rod assembly: \$295

Complete engine powder coat: \$595

CAD plate all hardware: \$125

DR C12 clutch kit: \$199

Crown series steel braided brake line:

Front \$49.95/Rear \$39.95

OEM decal kit \$99.95

DR dual O-ring steel exhaust flange: \$99.95

DR billet chain guard: \$39.95

DOUGLAS WHEEL & TIRE: (800) 722-

3746, www.dwtracing.com

Red Label front: \$125

Shamrock w/bead locks: \$550

HINSON RACING: (909) 946-2942,

www.hinsonracing.com

Billet clutch basket: \$250

K&N FILTERS: (800) 858-3333,

www.knfilters.com

Filter: \$69.95

MAIER MFG.: (800) 33-MAIER,

www.maier-mfg.com

Headlight shell: \$86

OEM replacement tank scoops: \$99

OEM-style plastic: \$425

MAXIMA RACING OILS: (800) 345-

8761, www.maximausa.com

927 Premix oil: \$19.95 per Liter

MTL Endurance transmission fluid:

\$9.95 per liter

Chain wax: \$11.50 per can

550 brake fluid: \$6.95 per bottle

PACIFIC PLATING: (619) 295-0496,

www.pacificplatingsd.com

Plating of: shifter, motor mounts, kick starter, rear brake pedal: Price varies

POWDER 1: (619) 588-9200,

www.powder1.com

Powder coating: Price varies

RENTHAL: www.renthal.com

ATC bend: \$129

RK EXCEL: (760) 732-3161, www.rk

excelamerica.com

O-ring chain: \$99

RPM: (928) 771-9363, www.team-rpm.com

Dominator axle: \$459

Carrier: \$218

Anti-fade nut: \$230

SKAT-TRAK USA: (909) 795-2505,

www.skat-trak.com

Rear 8-paddle Haulers and 21-inch

front: \$690

SUNSTAR SPROCKETS: (937) 704-1462,

www.sunstar-braking.com

Powerdrive countershaft sprocket:

\$26.95

Rear steel sprocket: \$45

VP RACING FUEL: www.vpracingfuels.com

C 12 fuel: Price varies

WORKS CONNECTION: www.works

connection.com, (530) 642-9488

Clutch perch: \$150 □