



**DUNCAN
RACING HONDA
SPECIAL-EDITION
300R**

The ultimate 250R is a 300!

Photos by Pat Carrigan

High-performance sport quads wouldn't be where they are today without the legendary Honda 250R. The incredible 250 two-stroke brought standard-setting engine performance and handling to the sport quad scene in 1986. Thirty years later, a good, stock 250R can do more than most sport quad riders ask.

Duncan Racing International (DRI) has built national championship-winning 250Rs, so when we asked how much performance DRI could build into a stock-framed 1988 Honda 250R, they pulled out all the stops and created an outrageously trick 300R!

POWER IN A BOX

One of the problems with getting modern performance from a 30-year-old machine is working with 30-year-old parts. Duncan Racing eliminated that issue years ago with the PC 2000 cylinder kit for the 250R. The heart of the kit is a brand-new, pre-ported, power-valve-equipped cylinder that replaces the stock Honda part. The 305cc version was used for this project for its combination of quick response and broad power delivery. There are 275cc and 340cc models for riders who want more instant power or a more torquey, open-class feel. The kit includes a piston precision-matched to the nikasil cylinder, billet head and interchangeable dome.

The complete PC 2000 engine kit includes the cylinder and all the related parts to get the full benefit from it. The larger, ported cylinder flows considerably better than stock, so intake and exhaust upgrades were developed to get the most power possible with the most usable power curve. Intake side mods include a K&N air filter, pre-jetted Keihin PJ or PWK carburetor, and Pyramid reed valve. On the exhaust side, a Paul Turner pipe and Fat Boy 2 silencer complete the package. To make the engine as reliable as new, DRI rebuilt the crankshaft and installed a Hinson/DRI clutch.

DUNCAN RACING HONDA SPECIAL-EDITION 300R



Thanks to the high-end Roll Design/Elka suspension, light weight, perfect geometry and the GPR stabilizer, the highly modified Honda is outstandingly stable and planted, even in brutally choppy terrain.



Honda 450R front brakes bring modern stopping power to the '88 machine.

TURNING IT LOOSE

Riding any 250R is a thrill, but riding one that's prepared like a championship-level race quad is truly a rare treat. The race engine kick-starts easily and settles into an anxious idle. The perfectly jetted, highly tuned two-stroke revs and responds so instantly, it makes a modern four-stroke feel a little lazy by

comparison. The 300's power is broad, but it still calls for a more alert riding style than a four-stroke. If you're under the real meat of the power, a downshift or a touch of the clutch relights the engine's rocket-like thrust. It's seriously fast. Under acceleration, the engine wants upshifts as fast as the rider can feed them.

BUILDING MODERN HANDLING INTO AN '88

The Honda 250R's basic chassis design and geometry were as close to perfect as any quad made, past or present, but it was a trail-width machine from the factory with shocks that are fairly basic compared to modern racing components. Duncan Racing gave this Honda long-travel, motocross-level suspension to fully release its potential using Roll Design Lobo II A-arms and fully adjustable Elka Stage 5 shocks front and rear. This national championship-winning setup brings the Honda completely up to date, with tuneability and performance well beyond today's best production quads. The GPR steering stabilizer and Roll Design steering stem give the rider an extra measure of control and comfort that's especially important with a high-horsepower, race-tuned machine. A Laeger's +1 swingarm and RPM axle keep the machine stable at speed and fight unwanted wheelies.



A Laeger's +1 swingarm keeps the 300's ample power from producing unwanted wheelies and adds stability for high-speed straights.



Duncan Racing's PC 2000 engine kit includes a brand-new, power-valve-equipped cylinder pre-ported to DRI's specifications, a piston matched to the nikasil cylinder, and a billet head and interchangeable dome, pipe, carb, reed valve and air filter.

DUNCAN RACING HONDA SPECIAL-EDITION 300R

The way the engine responds and the machine's amazing 350-pound weight, more than 50 pounds less than a modern long-travel four-stroke, give the 300R unreal handling. There's no need to muscle it around, and it changes direction on the ground or in the air effortlessly. Despite the feathery feel, the highly modified Honda is outstandingly stable and planted, even in brutally choppy terrain. Much of the credit has to go to the remarkable control and smoothness the high-end Roll Design/Elka suspension provides. Combine the excellent suspension with the Honda's perfect chassis geometry and light



Duncan Racing's outrageously trick 300R shows how much performance can be built into the legendary Honda 250R.

weight, and then make the handling even more calm and precise with the GPR steering stabilizer, and you can see how Duncan Racing developed

championship-winning handling for the 250R. Riding this machine reminded us that a 250R can be as impressive today as when they dominated ATV racing. □



DUNCAN RACING SPECIAL-EDITION 300R

Builder: Duncan Racing International
Special thanks: Paul Turner Racing Exhausts, Roll Design, DWT Wheels, Skat-Trak, GPR Stabilizers, Elka Suspension, Hinson Clutches, Fasst Co., Maxima, RK Chain, Works Connection

Gear sponsors: One Industries, Smith Goggles

MACHINE

Quad: 1988 Honda TRX250R

Quad weight: 350 lb.

Frame: Stock with DR mods

MOTOR

Motor mods: PC 2000 305cc "Midrange" engine kit \$2695

Kit includes: PTR Eliminator pipe, Fat Boy 2 silencer, PC 2000 cylinder, Pyramid reed valve, Keihin pre-jetted 39mm PWK carb, jet kit, K&N filter, Outerwear

INDIVIDUAL PARTS

Cylinder: PC 2000 305cc power-valve cylinder and matching PC 2000 billet head, \$1895

Reed cage: Pyramid reed valve, \$199

Spark plug/gap: NGK BR9EIX

Crankshaft: DR rebuild

Carburetor: Keihin 39mm PWK, \$249. Super Flow mod, \$75

Airbox/filter: Stock airbox

Pipe/silencer/muffler: K&N, Paul Turner Eliminator (triple-plate chrome pipe and Fat Boy 2 silencer, \$589

Fuel: Sonoco STD

Premix oil: Maxima 927 32-1

DRIVE SYSTEM

Clutch basket/plates/springs: Hinson basket/ DRI clutch, \$249/\$199

Transmission/oil: Maxima MTL Endurance

Chain/lube: Maxima chain wax

Sprockets: Sunstar

Gearing f/r: 14/38

Chain: RK Premium ATV O-ring, \$99

FRONT END

A-arms/width: Roll Design MX Lobo II A-arms

Kit price: A-arms, Stage 5 shocks, steel-braided brake lines, \$3395

Spindles: TRX 450R OEM

Front shocks: Elka long-travel Stage 5

Steering stem: Roll Design, \$299

Steering stabilizer: GPR w/ H-mount, \$449

REAR END

Swingarm/length: Laeger, +1-inch

Rear axle/carrier: RPM axle, tapered bearing carrier, \$499/ \$249

Rear shock: Elka long-travel Stage 5, \$1195

TIRES/WHEELS/HUBS

Tires f/r: Skat-Trak Mohawks front/8-paddle Glider rear

Tire sizes f/r: 22x7x10/12x11x9

Wheels f/r: DWT

Hubs f/r: TRX 450 OEM front/TRX 250 OEM rear

BRAKES

Calipers f/r: Front calipers TRX450R/ Rear TRX250R

Brake lines: Crown Series steel-braided front and rear, \$119/\$39.95

Brake fluid: Maxima DOT 5 (Calipers hand-polished by DR)

HANDLEBARS/CONTROLS

Handlebars/bend: Flexx bars, \$349

Throttle: Motion Pro CR

Clutch lever: Works Connection, \$129

Cables: Motion Pro

LIGHTS

Lights: LED lights

Stator: Ricky stator

Light mounts: Duncan custom mods

Front bumper: Custom upper handlebar headlight mount

MISCELLANEOUS

Front bumper/grab bar: DR chrome, \$199/\$39.95

Seat: OEM w/ vintage DR cover

Tank: Stock

Body plastic: OEM Honda RED

Footpegs: Roll Design, \$199

Powdercoating: Powder 1

Polishing: Polished in-house by DR's Jimmy Brown

OTHER SPECIAL SETUPS

—DRI graphics special-edition kit, \$199 (Scott Wilson custom design for DR)

—DR parking brake block-off, \$15

—DR billet shifter, \$89.95

—DR chain guard, \$29.95