

GOLDEN WEST HONDA 450R



Track, trail, dune or woods? By the staff of Dirt Wheels

□ Why do so many racers still choose the Honda 450R? It's long in the tooth with no real upgrades or changes made in over half a decade now. So what's the deal? Well, for one, it's reliable. Talk to any Honda owner and that's probably the first thing they'll tell you. Secondly, it's inexpensive. You can pick up a brand-new 2012 at the dealership for \$6600 or less. Third, the engine technology Honda packed into its UniCam motor still keeps up with the newer engine designs when modified. And lastly, it's light. At 388

pounds full of fuel and ready to ride, it's 20 pounds lighter than a YFZ450R. While Honda's R&D pool seems to be stagnant at the moment, the aftermarket is still producing a host of parts and accessories for the grandfather of sport 450 ATVs. So when our stock 2012 test machine was done with its normal testing, we called up Golden West Cycle (800) 383-6776 to put together an all-star build that would show that the 450R is still capable of keeping up with the newer, more expensive technology. We

enlisted the help of many companies, including Houser, DWT, Fox Racing Shox and Duncan Racing to make this incredible build happen. First up: the chassis.

CHASSIS

While the stock Honda 450R handles well, it's a little narrow and tippy for race-pace riding. The stock suspension is also a little jittery and produces a bit of headshake over uneven terrain. We pulled the front A-arms and the rear axle off the 450R and replaced them with Houser's long-

450R



The front end of our Honda 450R was graced with a Houser Slicast long-travel A-arm setup and Fox's new Float Kashima-coated shocks. They're buttery smooth, lightweight and provide great damping characteristics.

The 450R jumps well on the track or out on the trail. We hit low kickers at high speed without any fear of swapping out.



DWT supplied the wheels and tires for the test, and they performed very well. This particular tire works very well in sand too because of its paddle-like tread.

travel +2.25 Slicast arms and a wider DuraBlue rear axle, making the Honda almost 5 inches wider with our new wheel and tire combo.

The extra width really adds stability when you're railing corners hard. Up front, we bolted up Fox's new Evol Float Kashima-coated shocks. The



The enlarged IMS tank with the dry-break attachment is great for racing and makes filling the tank a very quick ordeal. This particular tank holds 3.7 gallons, which is a full gallon more than stock.

Kashima coating is specific to Fox, and, using a special molybdenum anodized coating, reduces surface



The Unicam Honda motor was massaged by Duncan Racing to produce insane power while still being legal to race in the 450 class. A Hinson complete clutch assembly puts the power down.

friction and allows the shocks to move more freely and smoothly with less stiction. It also adds a cool gold color



PARTS & PRICES

Front suspension

Arms: Houser Pro Series +2.25 Slicast Arms, \$899.99
 Spindles: Stock
 Shocks: Fox Evol Float w/ Kashima upgrade, \$1749.99
 Calipers: Stock

Rear suspension

Swingarm: Stock
 Shock: Fox Podium DSC, \$999.99
 Axle: DuraBlue X-33 w/ billet hubs, \$699.99
 Carrier: DuraBlue, \$319.99
 Caliper: Stock
 Linkage: Stock

Motor

Engine: Build by Duncan Racing International Inc.
 DR HP4 valve train kit: \$1395. Includes DR head port, Serdi valve-seat machining, big valve kit (+1mm intake and exhaust stainless steel valves)
 Heavy-duty valve-spring kit, HP valve guides. DR billet camshaft X11 mid/top grind
 Notes: All port designs flow-tested with DR in-house Flow Bench. Valve guides removed before all port work.

All port work done in-house by Loren Duncan personally.

Forged 12.5: Piston kit, \$225
 Fat Boy 4 complete exhaust: \$599
 *Colored muffler upgrade: \$99.95
 **Exhaust has limited lifetime warranty (to original purchaser)
 ***All exhausts hand-made in USA. Individually serial numbered
 Vortex X10 CDI ignition: \$499
 Pro Flow air cleaner kit: \$149.95
 Clutch: Hinson clutch basket, inner hub, pressure plate, clutch fiber/steel plates and springs, Hinson cover. \$1099.99 for complete kit
 Airbox: Stock modified by Duncan Racing for better flow
 Filter: Pro Design Pro-Flow Kit, \$129.99
 Filter oil: Maxima FFT, \$3.99

Body

Seat: QuadTech hump kit with Super-G, \$220.00
 Graphics kit: GWC custom w/ number plates, \$119.99
 Tank: IMS oversize w/ IMS dry-break receiver \$249.99 (tank) and (\$225 for receiver)
 Plastics: Stock
 Hood: QuadTech HPP-2 white w/ black grill, \$175
 Nerf bars: Houser Pro-Bounce w/ heel guard, \$429.99

Grab bar: Houser Pro, \$84.99
 Bumper: Duncan Racing Blk series, \$179.99

Controls

Stem: Houser +1, \$219.99
 Clamp: Houser anti-vibe 1 1/8, \$79.99
 Bars: Renthal Fatbar w/ orange pad, \$79.99
 Levers: Sunline Reflex, \$149.99 for both
 Cables: Motion Pro, \$17.99/ea
 Brake lines: stainless steel, \$79.99 (f)/\$29.99 (r)
 Throttle: Stock
 Grips: Renthal Kevlar, \$14.99
 Start switch: GWC, \$29.99

Other

Engine oil: Maxima 10/40w Prem-4 \$4.99/qt
 Coolant: Maxima Coolanol, \$12.99
 Brake fluid: Maxima hi-temp, \$4.99
 Chain: Sunstar Race series, \$89.99
 Sprockets: Stock
 Case saver: GWC Billet, \$19.99

Sponsors: Golden West Cycle, Duncan Racing, Fox Shox, Houser, Hinson, DuraBlue, Maxima, DWT, Renthal, IMS

to the spring-less Fox Float shocks. The Float Evol shocks use two separate air chambers to control ride height and bottom-out resistance. They are high- and low-speed compression adjustable, as well as rebound adjustable. The advantage of an air shock—besides being much lighter by losing the wound steel spring—is that when tuned right, it can soak up flutter bumps more quickly and smoothly. Each set of Fox air shocks comes with a high-quality

hand pump to adjust the air chambers.

Out back, we opted for the Podium DSC remote-reservoir shock, which is a coil-over shock that features preload, high-speed compression, low-speed compression and rebound adjustment. The smooth action of the Podium rear shock matches the smooth front end well and takes big hits like a champ. When we first rode the Honda, the rear would pack up in the whoops, so we sped up the

rebound circuit and added in some high-speed compression to keep it up in the top of the shock stroke upon entry. This allowed the rear end to have quite a bit more travel in the middle of the whoop sections and react quicker to impacts by dropping the rear end out faster.

We also added a taller Houser steering stem and Renthal Fatbars in an RC High Bend, which is a tall, flat bar with little sweep. Renthal Kevlar grips, Sunline Reflex folding levers

450R

feet when you bottom the quad out and also quell vibration to the pegs.

MOTOR

Duncan Racing modified and tuned our Honda 450R project, and it's a fire-breather! Starting with their HP4 top-end kit, which includes DR head porting, Serdi valve-seat machining, a big valve kit (+1mm intake and exhaust stainless steel valves), heavy-duty valve spring kit, HP valve guides, and a DR billet camshaft (X11 mid/top grind). A custom 12.5:1 compression piston was installed to further increase power, and the engine breathes through a Duncan Racing Fatboy 4 exhaust system with a custom color-matched muffler. A Vortex X10 CDI with dual-ignition maps (activated by a switch on the bar) and a Pro Flow air cleaner kit round out the package.

To put the power to the ground, a full-Hinson clutch assembly was installed, including a Hinson clutch basket, inner hub, pressure plate, clutch fiber/steel plates and springs, and a trick Hinson cover. The Hinson clutch is responsive, crisp and does-



Sunline Reflex folding levers and Renthal Kevlar grips adorn the Renthal Fatbars, which make the ergonomics of the Honda much better.



A clean start button and ignition-map switch for the Dynatek ignition box take the place of the clunky light pod on the stock bars.

Duncan's Fatboy 4 exhaust was powder-coated a metallic orange to match the Honda build, and it looks great. The sound is vicious, and the power is incredible!

and a custom start button rounded out the controls. We used the stock Honda thumb throttle too. To help us hang on, a custom QuadTech hump seat with a super-grippy cover was installed. It's much more comfortable than the stock seat and has a small step to keep your butt on the seat and lessen fatigue to your arms when you're really putting the power down.

Houser's Pro Bounce nerf bars were also installed, which feature a pivoting peg and a pillow ball that allow the pegs to move up and down 7/8 of an inch for shock absorption. They dull out the sharp pain to your

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QuadTech's hump seat is much grippier than stock, and the hump helps reduce fatigue by keeping your butt forward on the seat.

n't fade when you run the machine hard. After a day of fine-tuning with the carburetor and ignition mapping, Loren Duncan handed the 450R back to us, ready to rock and roll. For this build, we tuned the machine using VP Racing's awesome C12 race fuel, which is 108 octane, allowing our Duncan motor to run cooler and smoother without fear of detonation with the aggressive compression and ignition mapping. VP supplied two of their 5-gallon dump cans and enough C12 fuel to run the Honda 450R to our heart's content. The green VP fuel is also easier to see inside the oversized IMS fuel tank, so you can check your fuel level easily when you're on the track, trail or out in the dunes.

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