



MODIFIED WARRIOR vs. TRX300EX

Duncan Racing goes 4-stroke!

When the 4-Wheel ATV Action staff shows up at a riding area, everyone comes over to find out which machines we plan to shoot. On this particular weekend, we explained that Duncan Racing would be bringing out two modified four-strokes. The unanimous response to that was, "What?"

Yes, we, too, were a bit surprised that this championship-winning two-stroke motor builder was now involved in the thumper trade. After hammering on the two machines all afternoon, we sat down with Loren Duncan to learn more about Duncan Racing's new venture.

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4-Wheel Action: Why are you just now getting into four-strokes?

Duncan: We've always liked four-strokes. Back in the '80s, my brother and I worked with our dad, who spe-

cialized in them. Duncan Racing has done four-stroke work the entire 12 years we've been in business, but not on a national level. Plus, we were getting a little bored with two-strokes, and the possible two-stroke ban is a consideration. We're still heavily involved with two-strokes, though!

4WA: What were your goals for the EX and Warrior?

Duncan: In stock form, both bikes are reliable, but are lacking in overall performance. We wanted to put together a relatively inexpensive package that bolts right on. It consists of the exhaust, cam, springs, carb kit and K&N filter. Porting, which includes the three-angle valve job, is optional. The mods for each bike, like the cam grind, for example, are pretty similar.

4WA: What is your three-angle valve job?

Duncan: We cut the valve seats at three different angles. Now the valve will seat more toward the edge. There is less seating area for more intake and more power.

4WA: Any other motor mods to these particular machines?

Duncan: We go with a larger carb, lighten and true the flywheel, and bump the compression from around 8:1 to around 10 or 11:1 on both machines. We still have good reliability and race gas is not required, though we run it.

4WA: Why SuperTrapp exhaust?

Duncan: In our testing, it produces strong power and the fit is good. Duncan Racing is working on a line of four-stroke exhaust systems for the EX, Warrior and Honda XR dirt bikes. By the way, we're also working on steering dampers and A-arms.



Duncan Racing outfitted both machines with Holeshot tires, AC aluminum grab bars and nerfs, as well as Cascade seat covers. Nice! Though Duncan is developing its own exhaust systems, it favors SuperTrapp among those currently available. For stability, both the Warrior and EX received RPM Dominator axles.

4WA: Both bikes ran really well, but the Warrior seemed to gain the most from your mods. Which of the two quads would you say responds better to you mods?

Duncan: They are about even. The Warrior is faster stock, and it's still faster modified. Stock or modified, the Warrior tends to be torquier and more rider-friendly, while the EX likes to rev a little more.

4WA: Why did you gear up the EX, but leave the Warrior gearing stock?



Though Duncan has moved into four-strokes on an international level, it is still actively involved in screaming two-strokes. Check out these nice aluminum products, including exhaust clamps (from \$35), Banshee adjustable (+/-10°) timing plate (\$99.95), and rebuildable/seven-position adjustable steering damper kits (\$199.95).

Just as it is in stock trim, the Warrior is still a little faster than the 300EX after both receive the Duncan mods. However, both modified machines easily outrun their stock counterparts! ▶

DUNCAN RACING MODIFIED HONDA 300EX & YAMAHA WARRIOR 350 RIDER/SPONSORS

Riders.....Doug Eichner (Warrior; Mark Ehrhardt)
Main sponsors.....Duncan Racing Intl., (619) 258-6306
Co-sponsors.....Douglas Wheel, Trick, Maxima, RPM, OMF, ITP, AC Racing

MOTOR

Motor.....Duncan Racing bolt-on kit (exhaust, cam, springs, carb kit, K&N, porting optional)
Porting.....3-angle valve job
Piston.....Wiseco
Compression.....11.0:1 (Warrior: 10.25:1)
Ignition & timing.....Stock
Spark plug.....NGK
Valves/cam.....Stock/Mega Cycle and RD valve springs
Additional motor mods.....DR flywheel mod
Carburetor & mods.....DR pre-jetted Keihin 38mm PE
Airbox/filter/oil.....Stock/K&N with DR Outerwear/Maxima FAB 1

Pipe.....SuperTrapp Race Series
Fuel.....Trick 110
4-stroke oil.....Maxima Maxum4 20W50

DRIVE SYSTEM

Clutch basket/plates/springs.....Stock
Gearing f/r.....14/38 (Warrior: 14/40)

FRONT END

Steering.....DR Handlebar clamp (Warrior add: DR Steering Stem Blocks, Delron steering stem bushing)

REAR END

Rear axle/width/carrier.....RPM Dominator/47" RPM Twin Row Bearings

TIRES/WHEELS/HUBS

Tires f/r.....JTP Holeshot
Tire sizes f/r.....22x7-10/20x11-8
Wheels f/r.....Douglas Black Label .160"
Hubs.....RPM Taperlock (Warrior: Stock)

HANDLEBARS/CONTROLS

Handlebars/bend.....Renthal/FourTrax (Warrior: Renthal/Banshee)
Throttle.....Motion Pro CR-style
Cables.....Motion Pro
Grips.....Scott

DETAILS

Nerf bars.....AC aluminum
Front bumper/grab bar.....DR-13X0 (chromed)/AC aluminum (Warrior front bumper: DR-3W00)
Skid plates.....OMF engine and rear
Seat cover.....Cascade
Body plastic.....Stock cut by DR
Drag race times*.....12:76 (Warrior: 12:33)

* Average of three runs by Ehrhardt, wound out in top gear.

The aftermarket cam in the Honda (here) is billet and requires no core, while the Warrior cam is hard-faced and does. Duncan Racing cut back the fenders a bit for that race-ready look.

Duncan: The stock gearing on the EX is really low; it feels almost like a Blaster! So, we bumped the countershaft sprocket up one tooth to even it out a little with the Warrior. Actually, the Warrior could stand a one-tooth taller countershaft sprocket, too.

4WA: Riding in sand, the stock rev limiter on the EX kicks in too early and gets a little annoying.

Duncan: On hardpack, you're not revving that much and it's not that noticeable. People have to realize that overrevving any four-stroke can be costly. A customer brought in a motor that he had revved so hard the valves popped into the head. With the heavier valve springs and higher lift cam we use on the EX and Warrior, the motors can take higher revs without grenading. We're currently working on our own rev limiter.

4WA: How much do your kits sell for?

Duncan: Not including porting, the EX goes for \$739 and the Warrior for \$599. The Warrior is less expensive because it doesn't require a header pipe and it's only a two-valve motor. Porting alone (which includes the valve job) is \$295 for the EX and \$250 for the Warrior. □



