



ATV BUILD

DUNCAN RACING — TRX 250R — NATIONAL BUILD

A head-twisting beauty that runs as good as it looks!

By the staff of *Dirt Wheels*

□ Dennis DeMink is the proud owner of this TRX 250R build, as he should be. He's owned it for the last 16 years and completed much of the restoration himself, leaving nothing untouched. "We've had this quad for a long time. We originally bought it for my wife in 2007," claims DeMink. His wife, Lori, was already an accomplished ATC250R rider, having ridden three-wheelers since she was 6 years old, so her skill set was already in place for the addition of an extra wheel. Self-described as desert rats, the pair spend much of their free time riding a number of three- and four-wheelers they own at Glamis and

Ocotillo Wells in Southern California. Eventually, the two of them decided the near-40-year-old Honda deserved an extraordinary upgrade.

VINTAGE TWO-STROKE AWESOMENESS

The quad started out as a stock 1986 Honda TRX 250R. Dennis completed much of the wrenching and elbow grease on his own. The attention to detail is second to none, right down to the nuts and bolts. "Every piece and part on this quad is either polished or chrome," said DeMink. "All of the nuts and bolts are matching OEM. If the stock hardware was in bad shape, it

was replaced. If it was reusable, I personally put it in the parts washer for an hour, and then wire-wheeled every bit of rust, grit, grime and abrasion off of it." DeMink then sent all hardware out to be cadmium-coated for corrosion resistance.

For DeMink, turning to Duncan Racing for collaboration on the build was a no-brainer. He's been going to Loren Duncan for engine work since 1993, when he had Duncan build the motor in his 1989 YZ250 dirt bike, and later had them build a 2005 Honda TRX 470 duner, which was featured in *Dirt Wheels* Magazine in 2020. "I've just had a great relationship with

The owner, Dennis DeMink, has a set of paddles for the dunes, but heavier desert tires throw plenty of roost with this much extra power driving them. At just 340 pounds, this TRX250R weighs far less than today's modern sport quads.



Duncan Racing ever since. I've been super happy with all of their work. I ended up having Loren port my YZ250, and it was the fastest bike that I've ever ridden. I've just stuck with them because the motors that Loren builds are dependable, they're strong-running, and they're rideable. In my opinion, they run flawlessly because Loren Duncan is the master motor builder," said DeMink.

POWER UPGRADE

This TRX 250R is ridden by DeMink's family, including his daughter, so usable power that's easy to handle was the focus for

the engine. The decision was made to go with Duncan's Paul Turner Racing (PTR) National kit, which is the most popular engine build kit Duncan sells. The kit includes a PTR Eliminator pipe, Fat Boy silencer, billet PTR Powerhead, carburetor and reed valve. Duncan completes the kit with a National midrange port job on the stock OEM cylinder for a solid power boost that remains easy to ride, versatile and reliable. It's also one of the more affordable top-end kits that Duncan sells.

The engine is fed through a Keihin 36mm PJ carburetor bored to 37.3mm with the Duncan Racing Super Flow

mod. Duncan's Pyramid reed valve allows maximum air flow with reed pedals that open up on the top, bottom, and sides for strong throttle response and power gains from idle to wide open. To move more air through the intake, a K&N air filter with Outerwear was installed, and the stock airbox lid was removed.

To handle the upgraded power and torque, a Hinson clutch basket with cushions was installed and mated with Duncan Racing's C12 clutch kit. Final gearing is left to 1987-'89 specs with 13-tooth front and 28-tooth rear Sunstar sprockets and an RK 520 O-ring chain driving them.

MODERN CHASSIS AND SUSPENSION

The stock 1986 frame has been gusseted for strength and then modified to accept a 1988 OEM aluminum swingarm, which provides better weight balance and sharper turning with its 1-inch-shorter length. The frame has been powdercoated in a Silver Spark colorway, and the swingarm is polished to flow with the chrome and billet-polished accents scattered throughout the build. DeMink had a good idea of what he wanted the quad to look like from the beginning, and then took some styling cues from Duncan. "Loren let me do what I wanted to do, and then he would recommend stuff like 'a little red here and red there.' I absolutely love the way this quad turned out," said DeMink.

Up front, stock suspension gave way to new Roll Design Lobo A-arms, increasing the width to 50 inches. The Elka Stage 5 shocks are set up primarily for dune and desert riding, providing plushness through choppy sand and

providing excellent cornering ability. A Roll Design steering stem is an inch longer than stock and is fitted with Fasst Co. Flex bars with a 12-degree moto bend.

At the rear, an Elka shock was installed to the '88 swingarm using the OEM linkage. The rear width is increased to 49 inches using a RPM carrier and Dominator axle combination with a matching anti-fade nut.

NIGHT RIDER

Duners love night rides, and Duncan set this beauty up with two super-bright Rigid Industries LED light bars without the need of a heavy battery to power them. One row is mounted to the lower front frame rails, while the other is placed up high in the original 1986-'87 location on the steering stem, providing directional lighting when cornering. Ricky Stator provides the extra juice to run the light bars and the modern LED taillight with their 200-watt rewind stator.

PLENTY TO DROOL OVER

We asked DeMink what his favorite part of this build is, and while he couldn't name just one outstanding feature, we couldn't agree more with his answer. "I would have to say the overall attention to detail is my favorite part; it's so over the top!" exclaimed DeMink. "I love the color combination, and it handles like a dream. I get compliments on it all of the time. But I think [*Dirt Wheels* test rider] Josh Row summed it up best when he finished up the *Dirt Wheels* photo shoot at Dumont Dunes. He stepped off and said, 'This quad runs as good as it looks.' I can't think of a better way to sum it all up."

DUNCAN 250R

No detail was missed. Every nut and bolt is OEM spec and cadmium-coated. All parts are chromed, powdercoated and polished, right down to the stock footpegs. It's better than new.



Built using the stock 1986 frame, this Honda TRX 250R resto mod isn't the most expensive vintage build we've tested, but it certainly stands out as one of the best looking.



Two rows of Rigid Industries LED light bars provide super-white light for those midnight Glamis rides, and they're powered by a Ricky Stator 200-watt stator.



Dirt Wheels test rider and desert racer Josh Row summed up this machine in one sentence after a full day of testing: "This quad runs as good as it looks."

The stock 1986 frame has been gusseted for strength and modified to accept a 1988 250R aluminum swingarm, letting it turn sharper and more precisely with its 1-inch-shorter length.

DUNCAN RACING TRX 250R NATIONAL BUILD SHEET

Owner/builder.....Dennis DeMink
Build assisted by Duncan Racing International
Contributors.....Paul Turner Racing Products, GPR, Roll Design, Elka, Hinson, RK Chain, Maxima, Ricky Stator

MACHINE

1986 Honda TRX 250R
Quad weight.....340 lb.

MOTOR

Motor (type and origin)..... Two-stroke Honda TRX 250 R base
Equipped with Duncan Racing National Engine kit \$1995
Includes.....PTR Eliminator pipe, Fat Boy silencer, National port, Powerhead, DR Keihin 37mm PJ carb w/SuperFlow mod, Pyramid reed valve, K&N PortingMidrange Head/head modsDR Powerhead Piston/piston rod/crank.....ProX rod, ProX piston, Ignition/ignition timing ..OEM TRX 250/ billet-adjustable timing BRG holder Spark plug/spark plug gap.....NGK BR9EVX .028"
Reed cage.....Pyramid reed valve Carburetor type and size/carb modificationsKeihin 37mm PJ w/ Duncan Racing Super Flow
Airbox material and brand/air filter brand/air filter oil...OEM Box, K&N filter Pipe/silencer.....Paul Turner Eliminator pipe & Fat Boy silencer
Radiator origin/material GPI aluminum aftermarket
Fuel/fuel octane VP C 12 2-stroke oil/2-stroke oil ratioMaxima 927 32-1
Engine oilMaxima MTL Endurance Misc.....Rebuilt crankshaft, powdercoated cylinder, center cases, polished side covers

DRIVE SYSTEM

Clutch basket/plates/springsHinson basket w/ cushions \$284.95
DR C12 clutch kit \$225
Chain/chain lube..... RK
520 O-ring chain/Maxima chain wax
Sprocket brand f/r..... Sunstar
Gearing f/r..... 13T C/S & 38 T rear

NOTES

Paul Turner Racing products (pipes/silencers/engine components) are a proprietary division of Duncan Racing International and have been since 1989. Pyramid reed valve, Paul Turner Racing engines/exhausts, Fat Bot 2 silencers and Powerhead are proprietary brands/products of Duncan Racing International Inc. □



FRAME

Stock frame reinforced. Modified to accept '88 Honda TRX 250R aluminum swingarm

FRONT END

A-arms..... Roll Design Lobo \$1595
Spindles/hubs.....TRX 450R
Front end overall width..... 50" w/ tires
Front shock brandElka
Stage 5 shocks \$2495
Steering stemRoll Design +1 stem \$399

REAR END

Swingarm brand and material/swing-arm lengthOriginal OEM '88 Honda TRX 250R aluminum
Rear axle/rear axle width/axle carrier..... Dominator Axle \$659/ RPM Carrier \$218/anti-fade nut \$230. Axle 49" wide
Rear shock brandElka Lobo \$1495
*OEM linkage

TIRES/WHEELS/HUBS

Dirt tires brand f/r GBC
tires 21" fronts/20" \$450
Wheels brand f/r...DWT rolled beadlock front , DWT beadlock rear
Sand tire brand f/r.....
Sand Star front tires 21", Sand Sharks rear sand tires/20" \$500
Wheels brand f/r..... ITP
wheels S/S powdercoated black
Rear hubs brand and material.....OEM r. hubs

BRAKES

Brake system OEM
Honda TRX 450R Calipers
Brake lines.. Crown series Steel braided front \$149.95/rear \$49.95
Brake-line holders \$40 pair
Brake fluid..... Maxima 550

HANDLEBARS/CONTROLS

Handlebars brand and bend..Flexx Bars \$399, ODI grips
Throttle typeVortex Twist \$69.95
Shifter DR aluminum \$99
Clutch perch.....Works Connection \$169

LIGHTS

Light package \$995
LED headlights (handlebar light rigid)
Ricky Stator 200-watt stator, custom mount, RS volt reg & switch, LED tail-light w/custom S/S mount. Red LED under lighting

DETAILS

Front bumper DR chrome bumper \$249
Fuel tank material/fuel capacityIMS tank standard size
Seat coverPro Top \$199
Body material and brand
Maier OEM-style plastic \$499 Maier tank cover, Maier hood
Foot pegsWicked \$199
Kick-starter.....Billet

OTHER SPECIAL SETUPS AND PRODUCTS

Polished components: Engine side cases, swingarm , kick starter, shifter
Chromed components: Rear brake pedal Powdercoated components.
Frame, lower A-arms, footpegs

OTHER SPECIAL MODS/SETUPS

DR/SSI 2022 black/grey graphics kit \$149.95
DR dual O-ring steel exhaust flange \$99.95
CV4 hose kit \$149
GPR steering stabilizer \$525
DR billet chain guard \$39.95
F. motor mounts..... S/S

CONTACT

Duncan Racing International, Inc.
9380 Bond Ave, Suite B
El Cajon, CA 92021
Voice: (619) 258-6306 Fax:(619) 258-6309
www.duncanracing.com