



250 HIGH-PERFORMANCE SHOOTOUT!

LRD vs. Duncan vs. CT

It was the type of question that is guaranteed to start an argument: "You want to know who makes the fastest motors? All you've got to do is look at the results from the Nationals—whoever's sitting up there at the top of the results column. That will tell ya who's honking out there!" asserted 3&4 *Wheel Action* test rider Brand Johnson to no one in particular.

"No way, dude, you're dreaming! Horsepower can always be bought. Handling and suspension are where it's at. The fastest guys are the most fearless, and they don't always win!" stated 3&4 *Wheel Action* editor Ed Arnet, matter of factly.

"You're both nuts," chimed in 3&4 *Wheel Action* editorial consultant Dennis "Ketchup" Cox. "Everyone knows

the fastest engine you'll ever own is the one that runs better than it ever has, for a grand total of five minutes, before it locks up solid. I don't know why, but they never go quite that fast again."

Obviously, there was some difference of opinion here, and more than a few weird ideas. What better way to settle our differences of opinion than to come up with our own mini-National? Suppose we were to pit three of the fastest riders in the country against each other. We would have them bring out exact replicas of what they are racing on the National circuit.

Finally, we would make our top pros race each other on a track that we picked out. Hee-hee, ha-ha. Something with a lot of hard-packed, slick terrain. Not your typical uptown, well-groomed,

Who has the fastest 250? The intrepid 3&4 WHEEL ACTION staff got together with (left to right) Mark Ehrhardt, Charlie Shepherd and Gary Denton to see who really can claim to have the quickest race quad.

perfect dirt course. We were looking for something more typical of what the *real* dirt world was like, something that would be demanding of both man and machine. Yes, this was sounding better and better. Time to get out the stopwatch and see for ourselves who *really* has the fastest iron. Or does the *rider* really make all that much difference?

ENTER THE GLADIATORS

Defending Grand National Champ Gary Denton would have to be one of our contestants. His Wayne Hinson-

SHOOTOUT!



Who ended up having the fastest lap time during our 250 National shootout? Duncan Racing-sponsored Mark Ehrhardt's 250 edged out Gary Denton's and Charlie Shepherd's 250s for that particular honor, at this particular track, on this particular day.

prepped, DG/LRD-motored FourTrax 250R has propelled the Chino Charger to an unprecedented six National titles. Hinson would be outfitting Gary's back-up practice quad to match up to Denton's National title-winning machine.

Contestant #2 for our high-performance shootout would be MTGP Stadium Champ Mark Ehrhardt and his Duncan Racing-motored FourTrax 250R. As the defending Stadium ATV Champ, Mark was hot to pit his stadium expertise and motor skills against anyone we happened to pick out.

Rounding out our trio of talent for this 250 performance showdown would be former MTGP Champion and top ATV racer Charlie Shepherd on his CT-engined FourTrax 250R. Charlie has always been known as a tough competitor and has shown flashes of brilliance. If Shepherd is "on," in shape and, coincidentally, hungry, then he's virtually unbeatable. Charlie's concentrating on twisting that grip on the right handlebar to the fully open position.

HORSEPOWER=HANDLING?

In the motor department, all three of our contestants use a basic Honda FourTrax 250R engine, a design last offered to the general public back in '89. The main differences among these three engines were the porting, pipe and carb/airbox configurations each

employs. Denton's National motor uses TDR reeds/FMF reed cage, a DG 37mm Keihin carb kit, an LRD pipe and aluminum silencer, and a modified airbox to make a very hard-hitting and quick-revving powerband with a healthy midrange hit that he prefers. "Gary's always liked a motor that pulls hard in every gear, but still has plenty of over-rev for clutching it in the corners," says the six-time GNC Champ's good friend and ace quad preparer Wayne Hinson.

"One other thing Gary likes on his quads is for the controls to work almost effortlessly," added Hinson. "The throttle, the clutch, the brakes, the shifter—all need to work with a minimum of effort and stand up to the abuse of racing. I've got my own special clutch kits that I install to take care of the weaker Honda units. The clutch baskets themselves are a bit on the weak side. We make a much stronger, more durable unit for racing.

How all that horsepower gets connected to the ground is a different matter, though.

Gary Denton opts for a Laeger FourTrax chassis on his quad. The Laeger chassis hooks up to Laeger chromoly +2" A-arms and Ohlins shocks offering about 10.5 inches of travel up front. On the rear end, Denton uses a conventional linkage rear swingarm made by

Mark Laeger. The Laeger swingarm uses the rear shock linkage off a CR500 motocross bike to get a better "lowered mass" shock height. A single Ohlins rear shock hooks up to the Laeger swingarm and offers up to 12 inches of travel on the back end.

EHRHARDT'S MOUNT

Mark Ehrhardt, on the other hand, uses a non-linkage, direct-connect shock hook-up to a Graydon standard-length swingarm on his Outlaw FourTrax chassis. Ehrhardt runs a PEP-valved Fox shock on the back for around 12 inches of rear wheel travel and PEP-valved Works Performance shocks up front for 10.5 inches of travel. A Duncan Racing Pyramid valve replaces the stock Honda reeds. Paul Turner Ehrhardt signature porting, a Paul Turner TRX race pipe and Fat Boy silencer help get the FourTrax motor hopping. A Graydon Proline custom aluminum airbox is installed to get the breathing up to par with a Nix Pro-X piston and 36mm Keihin PJ carb helping to get the juices flowing on the Duncan Racing Trax. Duncan Racing tie rods and +2" A-arms give the Ehrhardt Trax a smooth and comfortable ride.

SHEPHERD'S FLOCK

Charlie Shepherd sure gets the most out of his CT Performance-tuned Four-



SHOOTOUT!

On any given day, at any given track, any of these three riders can be found at the front of the pack. Our mission was to find out how they compared outside of the heat of racing. Was any one machine actually that much faster than the rest?

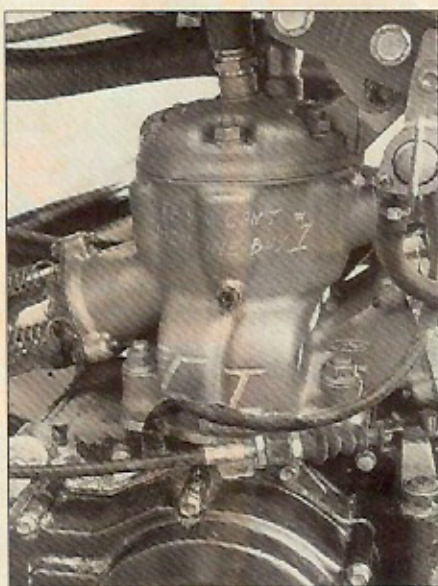
Trax 250R. "Charlie will ride anything but he rides a heck of a lot better when he knows he's got a fast quad under him," says CT owner/operator Allan Knowles. "He's a bit heavier than either Denton or Ehrhardt [180 pounds for Charlie as opposed to 150 pounds for Denton and 170 pounds for Ehrhardt]. Put him on a track with those other two guys and he'd grind them up!" Knowles says laughingly.

"We're also using the Laeger Four-Trax chassis on our quad. We've added PPS-valved, Fox long-travel big-body shocks up front for right around 12 to 14 inches of travel with an adjustable linkage rear swingarm that uses a Fox long-travel shock to get 14 inches of travel on the back end. A Nik's Pro-X piston kit and HRP [Hinson Racing Products] clutch basket and counterbalancer are also used on our race quad.

"On the motor FMF reed cages, with a CT reed spacer, 37mm Keihin carb and CT midrange National pipe and Pro Series silencer get the engine up and running. We like the MXA seat covers we get from this place overseas, as they offer quite a bit of extra traction for muddy conditions or what have you," says Charlie.

GETTING DOWN TO BUSINESS

With that our cast was complete—three top riders, three top aftermarket



Charlie Shepherd's CT 250R motor had "beaucoup" power throughout the powerband. All of our shootout participants were extremely competitive; any one of them can get you into the winner's circle. In the final analysis, it's the nut behind the bars who makes the ultimate difference.

engine companies. Now all we needed was a test track, a stopwatch and plenty of warm-up laps.

Glen Helen Raceway, located in the scenic, smog-shrouded hills of South-

ern California's San Bernardino County, is home to several top-notch off-road race tracks. They have a little bit of everything there, from an eighth-mile dirt oval to two separate motocross tracks for discriminating off-road pilots.

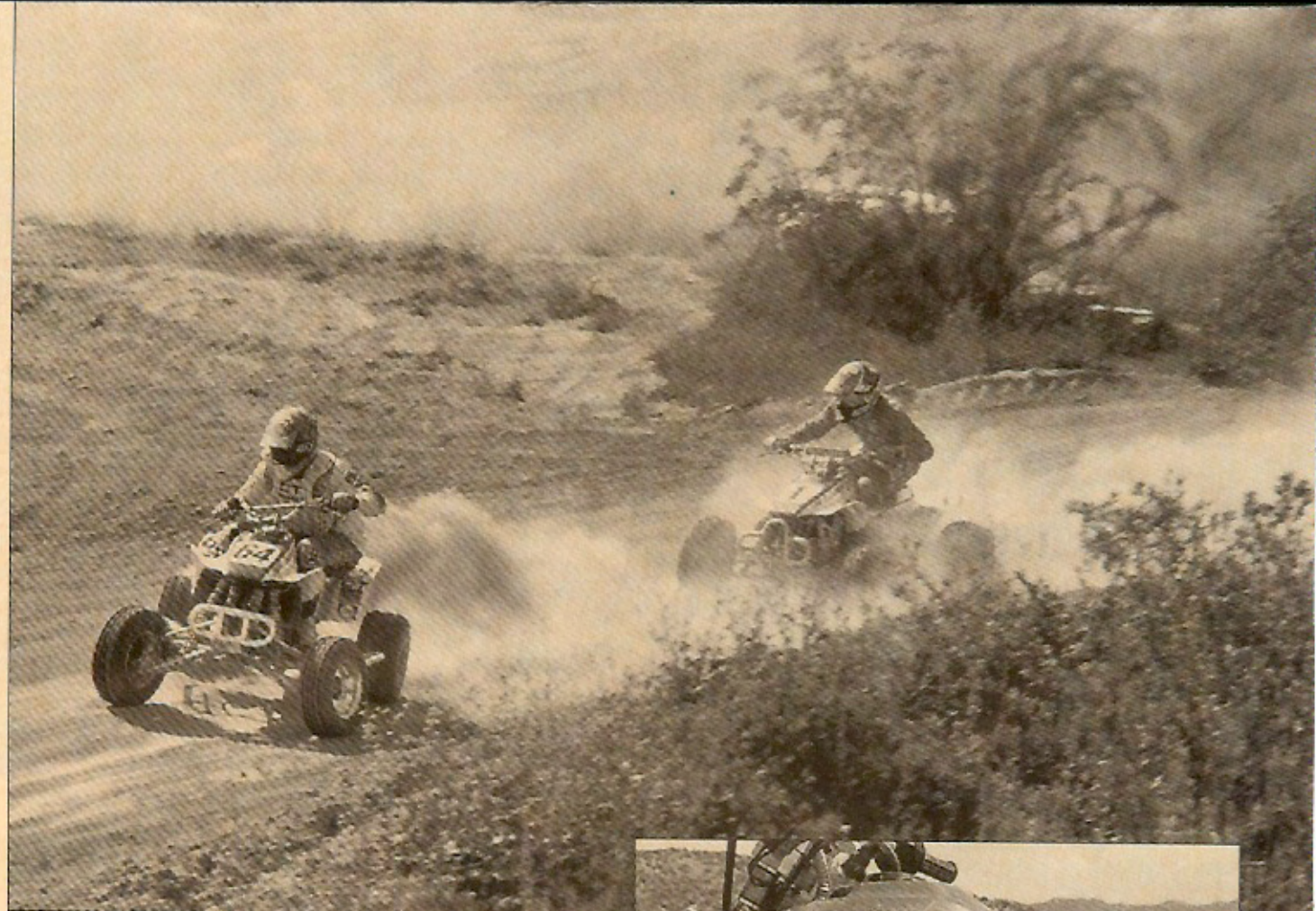
For our high-performance shootout, the 3&4 Wheel Action staff met with Shepherd, Denton and Ehrhardt at the Glen Helen race track to do individual timed, three-lap heat races to determine who *really* is king quadster!

This would be a *mano-a-mano* race, nothing but the rider and his machine against the stopwatch and the track.

For fairness we picked two timekeepers with two separate watches to record the lap times. Our course would consist of a half-mile, jump-filled, well-worn, somewhat dry and dusty race-track. The terrain was mostly hardpack, with an abundance of slick, demanding turns. The track was technical enough to keep the riders on their toes but still offer plenty of straights for determining horsepower output as well as riding skill.

START 'EM UP & MOVE 'EM OUT

After each rider got enough practice to feel comfortable on the slick track, it was time to reel off three hot laps. Rather than worry about missed shifts messing up the times in a dead-stop start, we opted to let the riders start out



Our test track was dry, slick and filled with lots of stadium-type jumps. Since dust would be a problem for anyone not getting a good start, we chose to run each rider separately for our comparison lap times.



Mark Ehrhardt's Duncan Racing 250R engine had the best low-end and midrange pull in our shootout. Mark prefers to let the motor lug and pull a gear high in the corners rather than revving it out on the top-end.

Gary Denton's LRD/DG 250R motor puts out meaty-hard hitting power throughout the powerband. The power suits Gary's rapid reflexes, and he's an acknowledged master of the holeshoot. ▶



with a rolling start past our timing post.

Mark Ehrhardt was the first rider out. Mark prides himself on his consistency and his times were just that. He consistently finished under the one-minute mark, the fastest time being a 59.57-

second lap with the slowest time being a 59.91-second lap.

Ehrhardt likes a midrange, non-peaky-style motor. It matches his riding style, which is to let the engine pull a gear high. His Paul Turner/Duncan

Racing FourTrax put out a throaty bark as it zipped around our test track. Clearly, Ehrhardt's machine was not a pure top-end rpm screamer. Rather, it preferred to pull a gear high and almost "lug" its way through the powerband.



Although we shot photos of the three National stars riding together on our motocross test track, individual lap times were taken separately, with each rider getting three timed runs around the course.



Shepherd started the contest with these massive PPS Ohlins shocks on the front end of his quad. After encountering some bottoming-out problems, he switched front shocks and cut a full second off his lap times.



Ehrhardt uses a CEET Racing Kevlar seat on his racing FourTrax. Feel, traction and comfort are far superior to the stocker.



Charging Charlie Shepherd installed one of these trick import MXA seat covers on his FourTrax. For mud or slick conditions, they are excellent.



SHOOTOUT!

Rider	Mark Ehrhardt, 5'11", 170 lb., 21 years old	Charlie Shepherd, 5'10", 180 lb., 21 years old	Gary Denton, 5'8", 150 lb., 35 years old
Machine	Based on '89 Honda FourTrax 250R	'89 Honda FourTrax 250R	'89 Honda FourTrax 250R
Frame	JP Outlaw FourTrax chassis	Laeger chromoly FourTrax chassis	Laeger FourTrax chassis
Motor	'89 Honda FourTrax 250R	'89 FourTrax 250R	'89 Honda FourTrax 250R
Porting	Paul Turner National porting	CT National porting	LRD Performance
Carburetor	36mm Keihin PJ	37mm Keihin PJ	37mm Keihin PJ
Pipe/silencer	Paul Turner TRX/Fat Boy	CT midrange National pipe & silencer	LRD National MX/DG
Reeds	Pyramid valve # PRV100	FMF RAM valve	TDR reeds w/FMF reed cage
Airbox	Graydon Proline custom aluminum w/Uni Dual-stage filter	Laeger aluminum airbox and Dura Blue filter	Modified stocker w/K&N filter
A-arms	JP +2" chromoly	Laeger ProTrax chromoly +2"	Laeger ProTrax chromoly +2"
Swingarm	JP chromoly, standard length, non-adj. link	Laeger swingarm, standard length, adj. ride height	Laeger w/Race Tech linkage (stock length)
Front shocks	PEP-valved, Works Performance w/12" travel	Ohlins PPS or Fox PPS w/12" travel	Ohlins w/ 10.5" travel
Rear shock	PEP-valved, Fox shocks w/12" travel	Sox single shock w/11.5" travel	Race Tech mod. FourTrax shock w/ 10.5" travel
Tires:			
Front	James Lucky Radials 145/-10	Riken radials, CT grooved 145/-10	Riken radials 145/-10
Rear	Dico Turf Tamers 18/9.50-8	Dico Turf Tamers 18 X 9.50-8	Dico Turf Tamers
Rims:			
Front	Douglas Red label	Douglas Red Label	Douglas Red Label
Rear	Douglas Red label w/Champion Beadlocks	Douglas Red Label w/Champion Beadlocks	Douglas Red Label w/Champion Beadlocks
Chain	Tsubaki 520 Omega 0-ring	Tsubaki 520 Pro Series 0-ring	Tsubaki 520 Omega 0-ring
Miscellaneous	OMF Radiator shrouds, Duncan modified ignition and gearbox, Trick 112-octane racing gas mixed w/Bal-Ray IR 32:1 oil, Graydon bumpers, skids, spindles, rear axle, nerf-bars, steering stabilizer, hubs, braided brake lines and grips, CEET non-slip seat cover, Motion Pro twist throttle, PEP EZ clutch, Pro Design kill switch, Remthal QuadRacer bend handlebars, EBC Kevlar front brake pads, and Niks Pro-X piston	MMF Pro-pegs and nerf-bars, OMF scoop and seat latch kit, CT Basner front bumper, CT stainless steel brake lines (front and rear), CT aluminum radiator brackets, Dura Blue rear wheel hubs, Pro Design kill switch, CT blueprinted gearbox, Hinson Racing clutch basket and counterbalancer bracket, Laeger Pro-Trax steering shaft, Motion Pro turbo throttle and cable, Niks CR125 clutch kit	DG bumpers, nerfs, grab bar, handlebars, Hinson Racing clutch basket, counter balancer bracket, airbox rings, seat latch kit and quick change clutch cover, PEP EZ clutch, PEP steel braided brake lines (front and rear) Bill's Pipes steering stabilizer, Dura Blue axle and carrier, Dura Blue Dual stage air filter, Dura Blue anti-fade axle nut, Dycorp footpeg extenders, custom Hinson Racing shifter, CEET Racing seat, CR500 Honda throttle cable and Magura 312 twist throttle, Pro Design kill switch, LRD "black box" ignition

LAP TIMES

Mark Ehrhardt	Charlie Shepherd
1: 59.62-59.64	1: 1.01.26-1.01.29
2: 59.63-59.57*	2: 1.00.77-1.00.79
3: 59.90-59.91	3: 1.00.59-1.00.63
Gary Denton	*Fastest time
1: 1.01.44-1.01.29	
2: 1.00.30-1.00.35	
3: 59.70-59.70	

meaty, broad powerbands—they did—but Ehrhardt's had that little bit more, and that little bit more was enough (see times chart).

After running his three timed runs, Shepherd came in and replaced the Ohlins shocks he had started out with and bolted on a set of longer-travel Fox shocks and immediately cut a second off his lap times. Since we hadn't allowed the other two riders to replace any shocks or incidentals, we had to disqualify Charlie's second set of times, but it was clear that both he and Denton (with a 59.70 fast time) were competitive with Ehrhardt.

As a matter of fact, the more we looked at it, the more it seemed that the difference among the three riders and the three machines wasn't really all that great. With a time difference of only one second between the three, it was as much a matter of who didn't make a mistake as to whose quad was appreciably faster than the other guys'. In the bottom-line analysis, it still comes down to one thing. The fastest quad belongs to the rider who makes the fewest mistakes, prepares the best and wants it the most on any given day. On this particular day and on this particular track, Mark Ehrhardt took that honor. □

In direct contrast to Ehrhardt's 250 was Denton's LRD/DG screamer and Shepherd's CT-motored spin doctor. Both engines put out considerable horsepower. They both liked to pull rpm and made power from the

midrange up. However, with the slick surfaces and iffy traction conditions, the slight low-end advantage of the Duncan FourTrax suddenly became noticeable. Not that Denton's or Shepherd's FourTraxes didn't have

