

CT vs. DUNCAN vs. TRINITY

DUNER BANSHEES

Sand comparison of the 3 hottest duners made

Power can be either a blessing or a curse! On the Banshee, it's an obvious blessing when going in a straight line, but there are few riders in this world who have the skill and resilience required to maneuver the road race-engined bullet through trees and hairpins and over double jumps. There's simply too much power on tap. If you cannot smoothly modulate the throttle while executing a challenging cross-country or MX course, you are going to ricochet around like an out-of-balance Ping-Pong ball—and you will be dead-tired in one lap. We can easily name a handful of successful Banshee desert racers, but there are only two successful motocross and cross-country Banshee pilots: John Natalie and Kim Kuhnle.

THE AUTOMATIC BANSHEE GOVERNOR

What the Banshee needs is either a mental governor for the operator or a mechanical governor for the machine. Surprisingly, there already exists a mental and mechanical governor that costs absolutely nothing—it's called sand! In the sand, where other

machines are struggling to move along, the Banshee is suddenly right at home. All of the wild reactions to feeding the machine too much throttle at the wrong time are gone, because you can never



The Duncan Racing Banshee scored big points for featuring a revver powerband that was more rideable than stock. The performance mods are designed to deliver peak power at 3/4 throttle. Mark Ehrhardt wicks it.

have too much power in the dunes! That's why Yamaha's Banshee is the dune king.

SAND BLASTER INGREDIENTS

What are the key ingredients that comprise a successful duner? First and foremost, you have to have some motor! Tuners are allowed a bit of leeway in the dunes, because the power-sapping sand permits them to favor top-end port and pipe designs. Some will definitely select a longer swingarm to help keep the front wheel down when hill shooting. Soft compression and slow rebound suspension action work best on the rolling whoops the dunes are famous for. Almost as important as the motor are the tires. Razor Back-type tires with 5 psi in the front and eight-paddle Haulers or Sand Skate-type rears—with 4psi—are well-rounded tire selections. Gear for your favorite hill, throw on a whip antenna and go blast those dunes!

3 HOT DUNERS GO HEAD TO HEAD

Let's take a look at three of the hottest Banshee duners made—that you and I can own!



CT Racing's duner delivered its power through a classic midrange-and-up jolt. This photo depicts what duning is all about—back it in and keep it pegged! Charlie Shepherd at the controls.



The dunes are the true home of the Banshee. The deep sand puts a "governor" on the zingy twin-cylinder two-stroke and makes toggle-switch hillshooter powerbands, like on this Trinity Yamaha, easier to manipulate.

BANSHEES

6 DRAGS & COUNTING! THE BS STOPS WHEN THE GATE DROPS!

• Who was tops in our six-pass, 200-yard drag test?

Race 1: Duncan, Trinity, CT.

Race 2: Trinity, Duncan, CT.

Race 3: Duncan, CT, Trinity.

Race 4: Trinity/Duncan (tie), CT.

Race 5: Trinity, CT, Duncan.

Race 6: Duncan, Trinity, CT.

GEARING

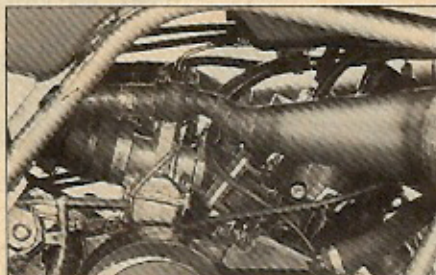
CT Racing: 14/41 (stock).

Duncan Racing: 15/41.

Trinity Racing: 12/49.

This was originally going to be a 20-pass showdown, but the test had to be cut short when the Trinity Banshee lost fourth gear. None of the contestants' machines were new, and obviously, some were used more than others. Trinity started losing fourth gear early in the comparison test, but felt confident enough about the machine that they decided to continue with the comparison. It's important to note that this was not an accurate means of evaluating performance, since all the machines were running different swingarm lengths, rear tires and gearing. As it stood, the Trinity Banshee hooked up the quickest and shot out of the hole the hardest. The Duncan Racing machine would consistently catch the Trinity Banshee midway through the run and pull it towards the end of the run. The CT machine wasn't coming out of the hole well, which killed it in the drags (poor final drive gearing selection). •

◀ *Every picture tells a story: The Trinity's mid-to-top punch, low gearing, 8"-over swingarm and nine-paddle Haulers allowed it to SHOOT out of the hole. As the Banshees race towards the middle of the 200-yard run, the CT and Duncan machines start to settle into their gears and creep up on the Trinity machine. By the end of run four, the Trinity and Duncan machines are head to head.*



Faithful fluids: CT Racing stakes the life of its Banshee on Trick 112-octane race gas, Motul 400 2T at 32:1 and Motul Light Viscosity Gear Oil. The CT engine does its talking in the middle of the power curve.



PERFORMANCE BRIEF A BATTLE AMONG PERSONALITIES

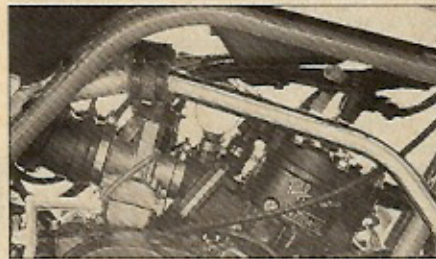
• Much more important than a drag race among three completely differently set up machines is *how* the engine runs. Certain types of riders favor a screaming top-end, while others favor a smooth powerband. Let's make a quick analysis of the three different engine personalities.

Stock: The '93 Yamaha Banshee's powerband pulls late off the bottom, doesn't hit hard, produces most of its usable power in midrange and signs off early.

CT Racing: The CT engine pulls smoother off the bottom and kicks in the afterburners from a late low-end, through midrange and into an early top-end punch. It pulls harder than stock and begins to flatten out at peak revs. It's the median power curve between the Duncan and Trinity Banshees. Stock gearing was used, and a switch to lower gearing would have suited the powerband better.

Duncan Racing: The engine is more responsive and pulls right off the bottom. A harder pull is carried from the bottom through the top. It carries stronger than stock power through the widest rpm range. The Duncan machine used the tallest gearing, which suited this type of power well.

Trinity Racing: This machine displays a short mid- to top-end burst hill-shooter powerband. Bring the revs up into the middle of the power curve, let go of the clutch and hang on—it's a rocket ship out of the hole. It's the strongest machine in the middle. Top-end was comparable to the Duncan Banshee, but



Duncan Racing's lifeblood: Trick 112-octane race gas, Maxima 927 at 32:1 and Maxima MTL Endurance tranny fluid keep the twin-cylinder two-stroke purring. Of the three revvers, the Duncan Racing machine had the longest and most user-friendly powerband.

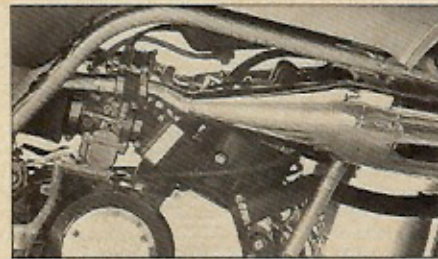
Stump-pulling low-end doesn't mean much in the sand, Bub; you are going to be revving that baby's guts out if you even want to move! These three Banshees cover every performance trait owners could ever long for.

was limited, since the low gearing and close-ratio gearbox allowed it to run out of gears quickly on the flat start.

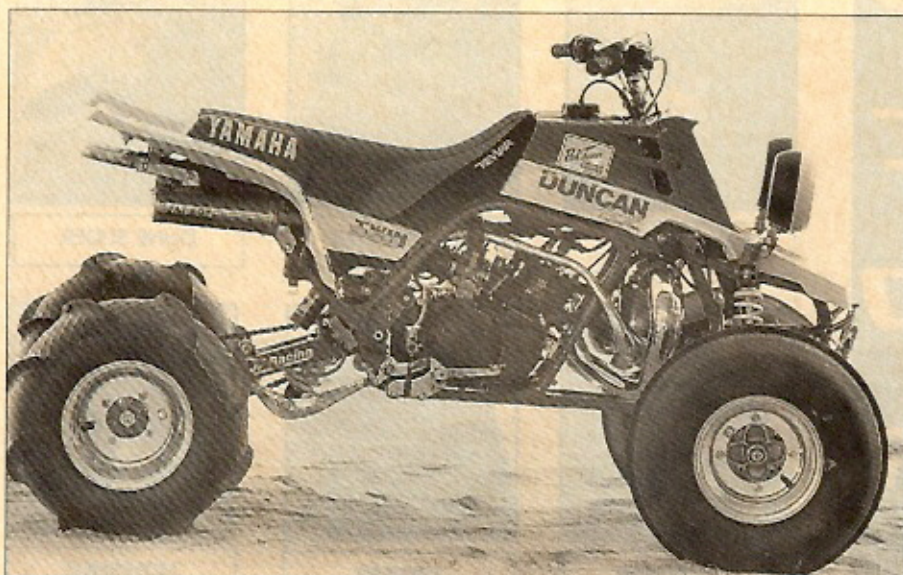
Note: Each one of these tuners can build the fastest duner, given the time and a "no-cost-spared" spending limit. 3&4 didn't provide the tuners with much time to prepare and didn't want any of them to go hog-wild with the money spent modifying the Banshees. The Trinity was set up to climb hills and the Duncan machine's forgivable powerband allowed it to be geared up to favor top-end. The stock gearing wasn't a very good match for the CT Racing Banshee's power characteristics. The bottom line is that these are three affordable and easy-to-attain duners. Choose the powerband that suits your riding style and conditions, and it will be the winner for you. •

POWERBAND: WHO'S TOPS WHERE?

Low bottom: (1) Duncan, (2) CT, (3) Trinity
Mid bottom: (1) Duncan, (2) CT, (3) Trinity
High bottom: (1) CT/Duncan, (3) Trinity
Low midrange: (1) CT/Duncan, (3) Trinity
Mid midrange: (1) Trinity, (2) CT/Duncan
High midrange: (1) Trinity, (2) CT/Duncan
Low top-end: (1) Trinity, (2) CT/Duncan
Mid top-end: (1) Trinity, (2) CT/Duncan
High top-end: (1) Trinity, (2) Duncan, (3) CT



The Trinity Racing motor was performing on Shell SU2000 92-octane gas, Neo synthetic premix oil at 100:1 and Neo 7W synthetic tranny fluid. This motor produced serious power from a short and pipey midrange-to-top-end punch.



DUNCAN RACING

Modification	Performance gain	Sugg. retail
Duncan Racing/Paul Turner Racing National Top-End Kit	35% increase in power	\$1350
Super Flow carb mods	More efficient carburetion	120.00
Airbox mod	Option of running without lid	15.00
Pipe chroming	Good looks	150.00
Weld & true crank	Prevents crank twisting and runs smoother	100.00
Flywheel lightening	Top-end power	60.00
Shift star mod	Smoother shifting	25.00
Billet aluminum clutch basket	Stronger basket and smoother clutch operation	160.00
Clutch kit	Accepts more power and allows for smooth shifts	160.00
RK O-ring	More links for long swingarm	58.95
Sprocket specialists countershaft	Taller gearing	15.95
Piggyback White Power shocks	9.5" travel and improved action	599.00
Piggyback White Power rear shock	12" travel and improved action	599.00
Leager-style +4" swingarm	Extended wheelbase helps keep front down; rigidity	399.00
Dura Blue-type twin bearing carrier	Durability and light weight	299.00
Dura Blue-type forged axle	+4" track and improved strength	319.00
Dura Blue-type axle locknut	Eliminates loose axle nuts	49.00
Renthal QuadRacer bend bars	Improved feel	64.95
Scott grips	Improved feel	8.95
Yamaha YZ clutch lever and perch	Smoother operation	60.00
Motion Pro Terminator Clutch cable	Smoother operation	21.95
Motion Pro CR twist throttle	Improved feel	18.95
Motion Pro throttle cable	Smoother operation	24.95
Steel-braided front brake lines	Improved brake feel	79.95
Steel-braided rear brake line	Improved brake feel	29.95
'87 upper cowling radiator shrouds & tank shrouds		75.00
Removing extra tabs, adding headlight mount and reinforcing frame	Lightness, simplicity and strength	125.00
Koller's Kolers custom blue frame paint	Good looks	230.00
Miscellaneous chroming	Good looks	500.00
CEET non-slip seat cover	Improved durability and looks	59.95
Triple plate steel bumper	Protection and looks	99.95
Aluminum grab bar	Protection, looks and grab hold	28.95
Sand Tires Unlimited Razor Back 22x8-10 front tires	Sand flotation	126.00
Douglas Red Label 0.190" thick 10"x6" aluminum front rims (2+4 offset)	Lighter and stronger	108.00
Sand Tires Unlimited Sand Skate I 21x12-10 rear tires, competition grooving	Sand hook-up	220.00
Douglas Red Label 0.190" thick 10"x10" aluminum rear rims (4+6 offset)	Improved strength and light weight	134.00
2 Cibie Oscars Plus driving lamps w/55-watt H-2 bulbs	Increased lighting	184.00
125W Safari stator	Powers stronger lights	85.00
Safari voltage regulator	Powers stronger lights	20.00
Total Duncan Racing duner cost		\$6784.40

*includes: National top-end porting, National top-end head mod, reeds, 34mm PJ Kohlin oval-side carbs, boost bottle, K&N filters, Paul Turner High Flow pipes, Fat Boy round aluminum silencers.



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JP Racing

PUNGAN

