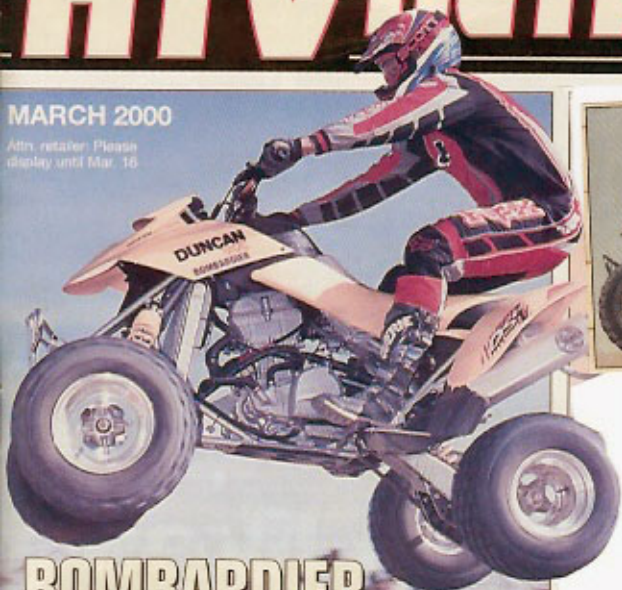


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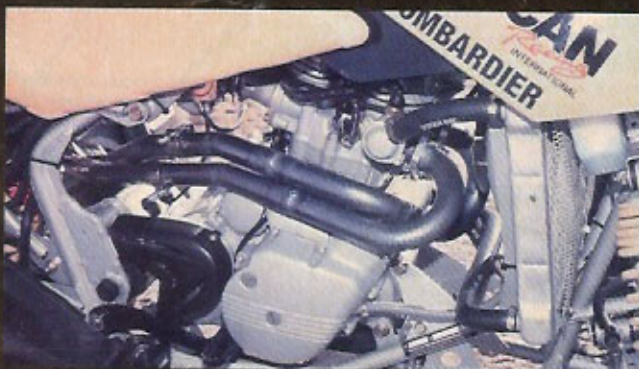


**BOMBARDIER
DS650 HOP-UP:
THE FASTEST GETS FASTER**

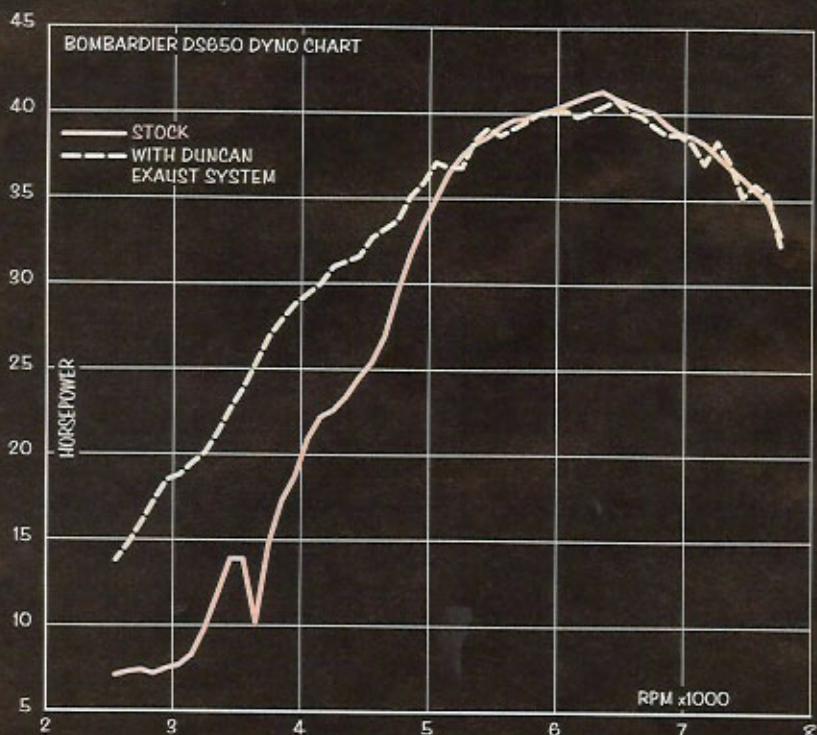
PROJECT BOMBARDIER DS650, PART I

*Motor magic...
and more!*

It's already the fastest high-performance machine available! What else is there to do the DS650? Well, as you read last month, just about any quad can stand some improvement. If we'd known more about the new performance machine from Canada, we would have included it in that story. As it is, we're just beginning to explore what's possible on the largest dis-



You can be sure the final production Duncan headpipes will have nice welds and will be stainless steel. Of course, the performance gain, which is substantial in the bottom end, will still be there.



All runs done with Hecolare (12 psi) with airbox 1/4 on. Horsepower ratings are SAE corrected for sea level. Stock run done with stock 165.6 mainjet. Run with Duncan exhaust system done with 160 mainjet.

There's that bottom end we were looking for! Notice that impressive ten-or-more horsepower gain from 2900 to 4000 rpm. The dyno run for the Duncan pipe (conducted with adjusted jetting) bears out our seat-of-the-pants impression of its performance. We're certain that future cam and carburetor mods will bring up the peak horsepower, too. By the way, notice that hiccup on the stocker's powerband at 3700 rpm is gone. Runs are conducted in only one gear and without using the clutch. When you nail the throttle at a low rpm and under a load, the motor can hesitate.

Duncan's muffler for the DS produced a deeper tone than the stocker. A tuneable bolt-on spark arrestor is available from Duncan Racing.

placement ATV in history. Join us for part one of Project DS650!

True, the DS whipped Yamaha's Banshee 350 for top speed and acceleration, but we knew the motor had even more potential. Most of the power is concentrated in the mid rpm range. We definitely wanted to wake up the low end.

Also, we felt that the DS could use some help in the handling department. Unlike what you'd expect from a 484-pound monster, the steering is quick—almost too quick. When ridden in sand, the DS can tend to dart and wander, rather than go where you point it.

For help, we turned to Duncan Racing, who set up the hot 440EX you read about in our last issue. Unfortunately, our deadline came soon after we got our DS test unit and Duncan barely had time to build a prototype exhaust for the DS. So, we'll have to put the steering issue on hold for a bit.

To address the powerband, Duncan whipped up new headpipes and a Double Barrel muffler. The muffler is about the same diameter as a model for Honda XR600 dirt bike, but a little longer. The headpipes are about the

PROJECT DS650



It's only a prototype, so this mounting setup for the Duncan chrome bumper isn't as beefy as the one that will be used on the production unit. We liked the Tag handlebars, and by removing the front mini fenders we chopped five pounds off the DS. Now the heaviest high-performance ATV is only 72 pounds heavier than a Banshee!

same diameter. A bolt-on spark arrestor is available for the system and is tuneable. The Duncan prototype head pipes we tested were bare metal, while their production unit will be stainless steel, the same as all Duncan's new four-stroke exhaust systems.

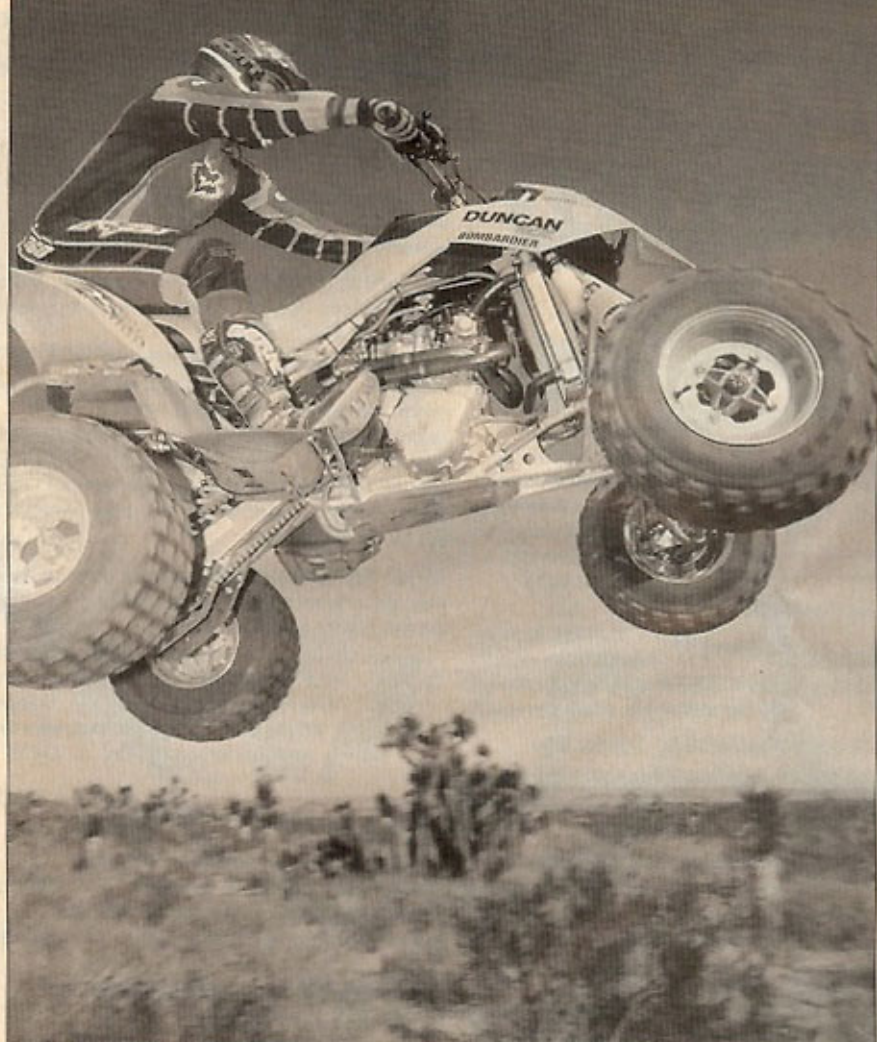
LET 'ER RIP!

We were surprised that the big DS650 four-stroke—in stock trim—didn't produce a very deep exhaust note. Not so with the Duncan. This machine now sounds like the big thumper it is. However, it's not annoyingly loud.

We were also surprised that the stock DS didn't produce the bottom end power we expected. Not so with the Duncan. Now, the DS actually feels like a big four-stroke.

We should point out up front that, because of time constraints and lack of availability, we were forced to run with the stock paper air filter. The gains we see with the Duncan pipe will certainly be greater with a better-flowing foam filter and larger airbox.

That said, we are still impressed with the performance. Power is strong, primarily in the bottom end, where the DS needed a boost. Before, it was sometimes tough finding the right gear to match the surprisingly narrow powerband of the stocker. That's not the case anymore, and you don't have to be as concerned with shifting and clutching—a sure indica-



tion that we're making progress.

We did occasionally notice some bogging when landing from big jumps and when pounding whoops, but those are carburetion issues that can probably be solved easily.

To our surprise, the DS with the Duncan exhaust ran better with the airbox lid on and a leaner mainjet.

With the increase in power, the DS reaches its top rpm quickly and bumps the rev limiter even sooner than before. With a different CDI and taller gearing, it's almost scary to think what the DS is capable of! We'll be exploring all these options in upcoming issues.

OTHER NICETIES

Duncan wasn't content sending the DS back to us with nothing more than a pipe, and threw in a few other niceties for our perusal. First up was a set of Tag Metal aluminum bars, which are a bit narrower than the stockers and not as swept back. This is the hot setup for more aggressive riding and they're strong. We like 'em.

Nothing dresses up the front of a quad like an aftermarket bumper. Duncan outfitted the DS with a prototype version of its own nice-looking chrome units. We also wondered what the DS would look like without the

The DS650 is big and requires a different riding style than we've been accustomed to. If you back off the throttle at the wrong time, the beast is not as forgiving as other performance machines.

front mini fenders (which add a total of about five pounds unsprung weight). We were pleased with the results and, when riding in sand and dirt, we didn't roost ourselves.

Bombardier's DS650 started out as a great machine, but it has the potential to be even better, as we've learned here. With this, part one of Project DS650, we've just scratched the surface. Stay tuned and watch out as we dig deeper and deeper! □

PART LISTS

Duncan Racing Double Barrel Exhaust System (components not sold separately)\$550
Duncan Racing spark arrestor (tuneable)\$50
Duncan Racing DR-Series chrome front bumper\$140
Tag Metals CR-Hi bend handlebars (with crossbar pad)\$95
Tag Metals handlebar clamps\$70
Contact: Duncan Racing at (619) 258-6306.

