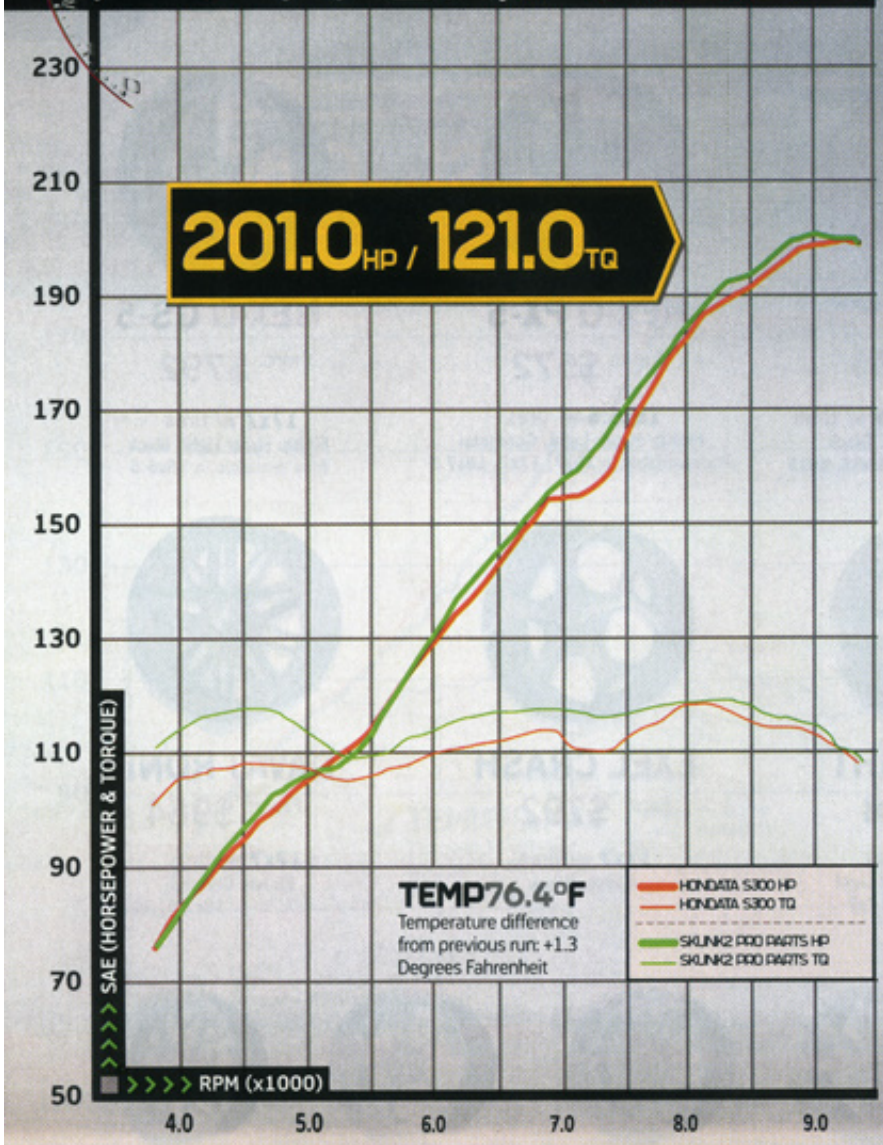
POWERPAGES



DYNO 3:
SKUNK2 PRO 1+ CAMSHAFTS, PRO SERIES VALVE SPRINGS, PRO SERIES RETAINERS AND PRO SERIES CAM GEARS

PEAKHP 201.0 / PEAKTQ 121.0

- HORSEPOWER GAIN
- 3800 to 5800 HP range: 8 to 7
- 5800 to 7800 HP range: 8 to 10
- 7800 to red line HP range: 7 to 6

- TORQUE GAIN
- 3800 to 5800 TQ range: 15 to 7
- 5800 to 7800 TQ range: 7 to 9
- 7800 to red line TQ range: 8 to 7

PROS

It's a common occurrence to see camshafts such as the Pro 1+ go up against a factory production unit, usually extracting a shitload of horsepower in the end. But, rather than the ordinary stock cam vs. aftermarket scenario, we decided upon putting the newer Skunk2 cams against its predecessor, the popular Skunk stage 2 cams, to showcase its dominance. Designed as a more aggressive street/strip camshaft for the B-series engines, the Pro 1+ camshafts were designed by Skunk2 to produce exceptional power from the 2000 to 7000rpm range—an area where horsepower becomes a critical factor in any autocross or road race event. Our goal for the new Pro 1+ camshafts was to optimize the high low VTEC crossover point to a more usable RPM range, while increasing overall horsepower. An interesting note while fine tuning the camshafts was a weigh-in between the older Jun Auto cam gears previously used on the engine coming in at 470 grams to the Skunk2 Pro units which weighed in at 212 grams. This was a major difference in weight when it came down to lightening the rotating mass on the ends of the bump sticks—even two Skunk2 sprockets stacked together on the scale (424g) were still lighter than one Jun Auto camgear.

CONS

Before we set the camshafts in place, we opted to replace the older valve train setup on the car, which comprised of an assortment of aftermarket springs and retainers from different manufacturers. Skunk2 titanium retainers and double valve springs were the logical choice to work alongside the new camshafts. With the B18 engine revving to 9500rpm, it became critical that all the components were in proper working condition. The last thing we wanted was to experience valve float or drop a valve and end our day of testing.

PARTS

Camshaft, cam specification sheet, instructions, cam gears, retainers, valve springs, stickers

TOOLS

10-, 12-, and 14-mm socket, 12-open end, ratchet, extension, screwdriver, timing gun, valve lash tool, valve adjustment tool and pliers

INSTALLATION TIME

120 minutes

NOTES

The cams showed a noticeably rougher idle with the air/fuel ratio showed the car running pig rich from idle to 6500rpm. While VTEC was still in the adjustment phase, the engine ran extremely lean after the crossover point, which required a series of tuning. Tuning the camshafts with the sprockets both set at 0 degrees timing did little in increasing our overall horsepower in comparison to the older stage 2 camshafts. What looked like a disappointment was quickly admonished when the gears were dialed in one degree on the intake and exhaust. The power gains were immediate, even at the lower 3800 rpm's as 8hp and 8 lb- ft torque was achieved. Dyno graphs reveal that from 6350 rpm to 8653 rpm that torque levels remained at a constant deadlock at 119 lb -ft for well over 2000 rpm. An impressive achievement for any engine. Along with the power pickup, we were able to drop the VTEC crossover point to 6200rpm- a setting that both the engine and camshafts seemed to agree on in the end.