

## Some trail/ lake mod shootout sleds from the 12/8/06 SW/DTR Shootout

Out of the seventeen sleds entered in the 2006 SnowWeek/ DTR Adirondack Shootout, eight were dyno tested here for tuning and displaying independent HP numbers for the public. The first Trail mod sleds (93 octane pump gas provided by DTR, non-race tracks with trail carbides, max 2" lower than stock) dyno tested here were the trail ported single pipe F8 and F1000 by D&D. These were posted earlier on this site.

Also Bill Looney DiFranco tuned his HTG ported OutDoorShop entry with 209 HP with D&D Ypipe and stock pipe, but ran a Speedwerx single in the Shootout. He's planning to come back to DTR with the Speedwerx single to "see what he had" during the Shootout.

So here are four other Trail Mod sleds and one Lake Mod sleds (race gas, any track with commercially available carbide picks, stock suspensions lowered a max of 4" from stock height), shown in order of displacement/ HP.

The first is the HTG pump gas IQ600 Polaris, with Rob's porting, a HTG single with stock muffler. A Boondocker was used to tune fuel for max HP for 20 seconds on pump gas. The HTG single likes to be hot to make max HP—probably a combination of high flowing pipe and factory center section temp sensor that likely retards timing until high temp (losing HP until then).

EngSpd	STPTRq	STPPwr	TsTim2	FulA-B	BSFA-B	AirTmp	WtrOut	BaroP
RPM	Clb-ft	CHp	second	lb/hr	lb/hph	degF	degF	in/Hg
5800	45.1	49.8	0	48.5	1.05	70	57	28.87
5900	45.2	50.8	0.8	49.2	1.04	70	58	28.87
6000	45.2	51.6	1.4	49.9	1.04	71	59	28.87
6100	45.4	52.7	1.9	50.1	1.02	71	59	28.87
6200	46.1	54.3	2.3	50.4	0.99	71	59	28.87
6300	49.2	59.1	3.2	50.1	0.91	72	61	28.87
6400	49.5	60.3	3.7	51.1	0.91	72	61	28.87
6500	49.9	61.7	3.9	52.6	0.92	71	62	28.87
6600	51.7	65.1	4.2	54.7	0.91	71	62	28.87
6700	53.9	68.8	4.4	57.3	0.89	70	63	28.87
6800	58.1	75.1	5.9	60.1	0.86	71	64	28.87
6900	59.3	78.1	6.9	62.8	0.87	70	65	28.87
7000	60.1	80.1	7.3	65.8	0.88	69	65	28.87
7100	60.7	82.1	7.4	68.1	0.89	69	65	28.87
7200	61.8	84.7	7.6	69.2	0.88	70	65	28.87
7300	63.2	87.8	7.7	69.9	0.86	70	65	28.87
7400	66.8	94.2	7.8	70.6	0.81	70	66	28.87
7500	61.1	87.1	9.4	71.1	0.88	70	68	28.87
7600	61.6	89.2	9.4	71.4	0.86	70	68	28.87
7700	62.5	91.6	9.5	73.5	0.86	70	68	28.87
7800	64.1	95.1	9.5	75.4	0.85	69	68	28.87
7900	65.7	98.9	9.6	76.7	0.83	69	68	28.87
8000	89.3	136.1	13.8	77.5	0.61	70	73	28.87

8100	91.6	141.2	14.6	77.9	0.59	71	74	28.87
8200	93.5	146.1	15.4	78.1	0.57	71	74	28.87
8300	94.5	149.3	16.2	77.8	0.56	72	76	28.87
8400	93.8	150.1	17.1	75.2	0.54	72	78	28.87
8500	91.9	148.8	17.7	72.3	0.52	72	80	28.87
8600	89.2	146.1	18.9	69.9	0.51	71	82	28.87

Here is CJ Motorsports SkiDoo's (from Booneville NY) big bore HO800/860. This sled used a DynoPort single pipe, Vforce reeds, bored carbs and ECU remapped to their liking. Engine modifier Mark elected to leave jetting conservative after achieving nearly 175 HP at close to .70 lb/hphr. This was the average of two tests needed to smooth out fuel flow numbers that fluctuated a bit.

EngSpd	STPTrq	STPPwr	AirTmp	Fuel B	BSFC	AirDen	BaroP	TsTim2
RPM	Clb-ft	CHp	degF	lb/hr	lb/hph	lb/cFt	in/Hg	second
5700	81.1	87.9	71	78.1	0.944	0.071	29.12	174.9
5800	82.6	91.3	71	79.2	0.923	0.071	29.12	175.2
5900	86.7	97.4	71	81.1	0.885	0.071	29.12	175.5
6000	87.9	100.5	71	82.6	0.874	0.071	29.12	175.7
6100	90.6	105.2	71	84.5	0.854	0.071	29.12	176.3
6200	92.4	109.1	70	86.8	0.845	0.071	29.12	176.6
6300	92.6	111.1	70	89.2	0.853	0.071	29.12	176.8
6400	96.6	117.8	70	92.5	0.834	0.071	29.12	177.2
6500	99.2	122.7	70	95.8	0.829	0.071	29.12	177.4
6600	101.1	126.9	70	98.2	0.822	0.071	29.12	177.6
6700	104.7	133.5	71	99.6	0.793	0.071	29.12	178.1
6800	108.1	139.9	71	101.1	0.767	0.071	29.12	178.3
6900	109.9	144.4	72	102.6	0.756	0.071	29.12	179.1
7000	111.3	148.4	70	103.6	0.741	0.071	29.12	179.3
7100	113.8	153.8	69	103.8	0.716	0.072	29.12	179.5
7200	114.5	157.1	69	103.6	0.701	0.072	29.12	179.8
7300	115.6	160.7	69	102.8	0.679	0.072	29.12	180.1
7400	116.8	164.5	70	102.1	0.658	0.071	29.12	180.5
7500	117.1	167.1	71	103.1	0.655	0.071	29.12	180.7
7600	118.1	170.9	71	104.8	0.652	0.071	29.12	181.1
7700	116.9	171.4	71	107.1	0.664	0.071	29.12	181.4
7800	116.1	172.3	71	109.4	0.675	0.071	29.12	181.7
7900	115.8	174.2	71	112.1	0.684	0.071	29.12	182.1
8000	113.4	172.7	71	114.6	0.706	0.071	29.12	182.4

Once again Erich Long of Bikeman Performance came from Wisconsin to participate in the SW/DTR Shootout. Here's his F1000 trail ported, 3 degree key, D&D Ypipe, BMP modded stock pipe, stock muffler and BMP billet aluminum cylinder head assembly. Sled owner Jake was here with this sled earlier with a stock head and made 210.7 HP on my pump gas. This time the only change was the head and a bit more Boondocker tuning, still on my 93 octane pump gas [note during his first run at the Shootout Jake's Boondocker failed causing injectors to stay wide open and foul plugs—ODS Dan loaned Jake and Erich their Boondocker after the final ODS F1000 pass, but the ODS RPM settings were different from BMP's, ODS's had overlap, and BMP's had no overlap so

Erich had to take a stab at the numbers and was probably way off the mark]. Here's the BMP F1000 with healthy Boondocker.

EngSpd	STPTRq	STPPwr	Fuel A	TsTim2	BSFC	AirTmp	Air1+2	A/FA-B
RPM	Clb-ft	CHp	lb/hr	second	lb/hph	degF	scfm	Ratio
5100	95.1	92.3	76.5	0	0.876	49	167	9.97
5200	94.1	93.2	76.6	0.3	0.868	48	168	10.02
5300	95.3	96.2	76.9	0.6	0.845	48	171	10.19
5400	96.5	99.2	75.8	0.8	0.807	48	173	10.45
5500	98.4	103.1	75.4	1.1	0.773	48	176	10.67
5600	105.4	112.4	75.1	1.5	0.706	49	182	11.08
5700	106.8	115.9	74.9	1.8	0.684	50	184	11.23
5800	108.4	119.7	74.2	2.1	0.656	50	187	11.56
5900	112.8	126.7	72.4	2.5	0.604	49	193	12.19
6000	114.6	130.9	72.1	2.8	0.582	49	197	12.51
6100	116.8	135.7	74.5	3.2	0.581	49	201	12.37
6200	120.3	142.1	74.6	3.5	0.555	49	205	12.61
6300	123.1	147.7	73.9	3.9	0.529	49	211	13.08
6400	124.1	151.2	75.9	4.1	0.531	49	214	12.91
6500	126.2	156.1	88.1	4.6	0.595	48	234	12.18
6600	126.8	159.4	91.8	4.9	0.609	49	241	12.03
6700	128.1	163.5	92.3	5.2	0.597	50	246	12.19
6800	131.9	170.8	99.9	5.4	0.619	50	255	11.68
6900	133.9	175.9	105.5	5.8	0.634	49	261	11.34
7000	133.9	178.5	105.4	6.1	0.624	49	263	11.41
7100	138.7	187.5	106.1	6.3	0.598	50	270	11.64
7200	142.6	195.4	104.8	6.7	0.567	49	276	12.07
7300	143.8	199.9	107.5	7.1	0.568	49	280	11.91
7400	147.1	207.3	109.4	7.5	0.558	49	283	11.83
7500	148.5	212.1	110.1	7.7	0.549	51	282	11.76
7600	149.5	216.3	112.6	8.1	0.551	51	282	11.48
7700	148.9	218.2	113.6	8.6	0.551	51	282	11.38
7800	138.7	205.9	113.3	9.6	0.582	49	281	11.35

Rob Schooping of HTG just finished building Alan Kovatch's 1200 triple pump gas Edge chassis conversion, and Rob and Alan decided to enter it in the Trail Mod class. This one has a quiet stock XCR800 muffler, low compression and 44 Megatron carbs. It also has a Firecat track (HTG's Joe Salemi does a nice job tig welding extensions onto Polaris skidframes to accommodate the extra length). Here's Alan's 1200 on my dyno on pump gas after maybe six runs to optimize timing and jetting for 1000 ft runs.

EngSpd	STPTRq	STPPwr	Fuel B	TsTim2	BSFC	AirTmp	BMEP	BaroP
RPM	Clb-ft	CHp	lb/hr	second	lb/hph	degF	psi	in/Hg
7200	112.5	154.3	76.7	0	0.501	40	115.1	29.22
7300	118.5	164.6	81.2	0.3	0.496	40	121.1	29.22
7400	135.1	190.4	103.2	1.6	0.543	38	138.4	29.22
7500	134.8	192.5	108.6	2.2	0.565	38	138.1	29.22
7600	137.9	199.5	116.6	2.7	0.585	37	141.3	29.22
7700	138.4	202.9	119.4	2.8	0.589	37	141.9	29.22
7800	139.9	207.7	117.8	2.9	0.568	37	143.4	29.22
7900	142.1	213.5	119.5	3.1	0.561	37	145.5	29.22
8000	145.1	221.1	119.5	3.6	0.541	37	148.7	29.22

8100	151.3	233.3	132.6	4.1	0.571	38	154.9	29.22
8200	158.5	248.4	134.9	4.6	0.544	38	162.9	29.22
8300	159.1	251.2	133.3	4.9	0.532	38	162.8	29.22
8400	159.3	254.3	137.2	5.2	0.541	38	162.8	29.22
8500	161.4	261.3	144.4	5.8	0.555	40	164.9	29.22
8600	160.8	263.4	145.6	6.1	0.555	40	164.3	29.22
8700	160.8	266.3	149.6	6.3	0.564	39	164.4	29.22
8800	161.3	270.2	148.8	6.5	0.553	39	164.9	29.22
8900	162.3	275.1	151.4	6.7	0.553	39	166.1	29.22
9000	160.7	275.3	151.4	7.4	0.552	39	164.3	29.22
9100	158.3	274.4	153.5	7.7	0.562	40	161.8	29.22
9200	152.3	266.8	158.1	8.2	0.595	40	155.6	29.22

Finally for today, here's Rob Schooping's "King of the Trail" HTG 1200 Edge. The difference between Rob's engine and 1200 trail engines like Alan's is higher compression race gas heads and slightly higher revving, lighter weight triple pipes with lighter individual glasspack silencers. Also note that the race engine's BMEP is about 10 psi higher than the pump gas engine, due mostly to higher effective compression ratio.

EngSpd	STPTrq	STPPwr	Fuel B	BSFC B	WtrOut	AirTmp	BMEP	BaroP
RPM	Clb-ft	CHp	lb/hr	lb/hph	degF	degF	psi	in/Hg
7200	128.8	176.5	113.9	0.665	63	60	128.2	29.14
7300	132.9	184.7	120.1	0.671	63	60	132.3	29.14
7400	134.9	190.1	123.6	0.671	63	60	134.4	29.14
7500	138.9	198.4	126.9	0.659	63	60	138.4	29.14
7600	140.1	202.7	124.1	0.631	63	60	139.5	29.14
7700	147.8	216.7	125.1	0.595	63	60	147.2	29.14
7800	142.2	211.1	129.6	0.633	63	60	141.5	29.14
7900	144.3	217.1	130.4	0.619	64	60	143.7	29.14
8000	146.9	223.7	133.5	0.615	64	60	146.3	29.14
8100	151.7	234.1	134.5	0.592	64	60	151.1	29.14
8200	158.7	247.8	135.1	0.562	64	60	158.1	29.14
8300	169.6	268.1	165.3	0.636	66	61	168.7	29.14
8400	178.5	285.4	167.1	0.603	67	60	177.8	29.14
8500	176.8	286.2	177.6	0.639	67	60	176.1	29.14
8600	178.1	291.4	178.7	0.631	68	59	177.5	29.14
8700	176.8	292.9	179.6	0.632	68	60	176.1	29.14
8800	177.1	296.6	180.7	0.628	69	61	176.1	29.14
8900	176.7	299.5	185.5	0.641	70	62	175.6	29.14
9000	175.1	300.1	183.8	0.632	71	61	174.2	29.14
9100	171.1	296.3	179.2	0.624	72	61	170.1	29.14

Other trail mods that should be coming to tune here:

- 1) Looney's F1000 with ODS' trail mod this time with the Speedwerx single pipe.
- 2) Sherlock Performance's trail ported/ CS twin pipe Mach Z. During shootout runs his Boondocker settings were way off—diesel-like black exhaust at WOT. Better dyno tune late than never.
- 3) A Rich Daly DynoPort clone of the Mach Z with only a DynoPort single. On 12/21 late we've got a stock 05 MachZ coming, Jimmy Cooper is going to install the 07 ECU

programming, and we'll try to get a DynoPort single to test. Also maybe a set of Vforce reeds (we lost 4 HP with those on a trail port twin pipe MachZ but never did back to back on a stocker).

Finally when Tim Erickson publishes the Trail and Lake mod times and speeds keep in mind that the Trail Mod sleds were limited to 1000 ft and Lake Mods were limited to 660. 660 and 1000 ft times and speeds on the stockers are posted on [www.snowweek.com](http://www.snowweek.com)