

SHORT BLOCK

Block: Toyota 1UZ	Bore: 104.78 mm	Stroke: 84.07 mm
Cylinders: 8	Cyl Vol: 724.88 cc	Total Vol: 5799.05 cc

CYLINDER HEADS

Cylinder Heads:	4-Valve Head/Ported With Large Valves		
Airflow File:	1UZ-FE Mod.flw		
Intake Valves:	2	Exhaust Valves:	2
Intake Valve:	33.50 mm	Exhaust Valve:	28.00 mm

COMPRESSION

Compression Ratio:	10.50	Combustion Space:	76.30 cc
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INDUCTION

Induction Flow:	1500.0 cfm @ 3.00 inHg	Fuel:	Gasoline
Manifold Type:	Tuned-Port Injection	N20:	0.0 lbs/min
Blower: None		Intercooler:	*** %
Flow:	*** cfm	Pressure Ratio:	***
		Boost Limit:	*** psi
Speed:	*** rpm	Belt Gear Ratio:	***
		Surge Flow:	*** cfm
Eff:	*** %	Internal Gear Ratio:	***

EXHAUST

Exhaust System:	Large-Tube Headers With Mufflers
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CAMSHAFT

Camshaft Type:	Kelford 207-B	Cam File:	Kelford 1UZ 207-B.cam
Lifter:	Solid	Lobe Center:	106.0
Cam Specs @:	Seat-To-Seat	Valve Overlap:	64.0
Int Lift@Valve:	10.26 mm	Int Duration:	276.0
Exh Lift@Valve:	10.26 mm	Exh Duration:	276.0
Nominal Timing		Timing@ Adv(+)/Ret(-):	0.0
IVO (BTDC):	34.0	IVC (ABDC):	62.0
EVO (BBDC):	66.0	EVC (ATDC):	30.0
ICA (ATDC):	104.0	ECA (BTDC):	108.0

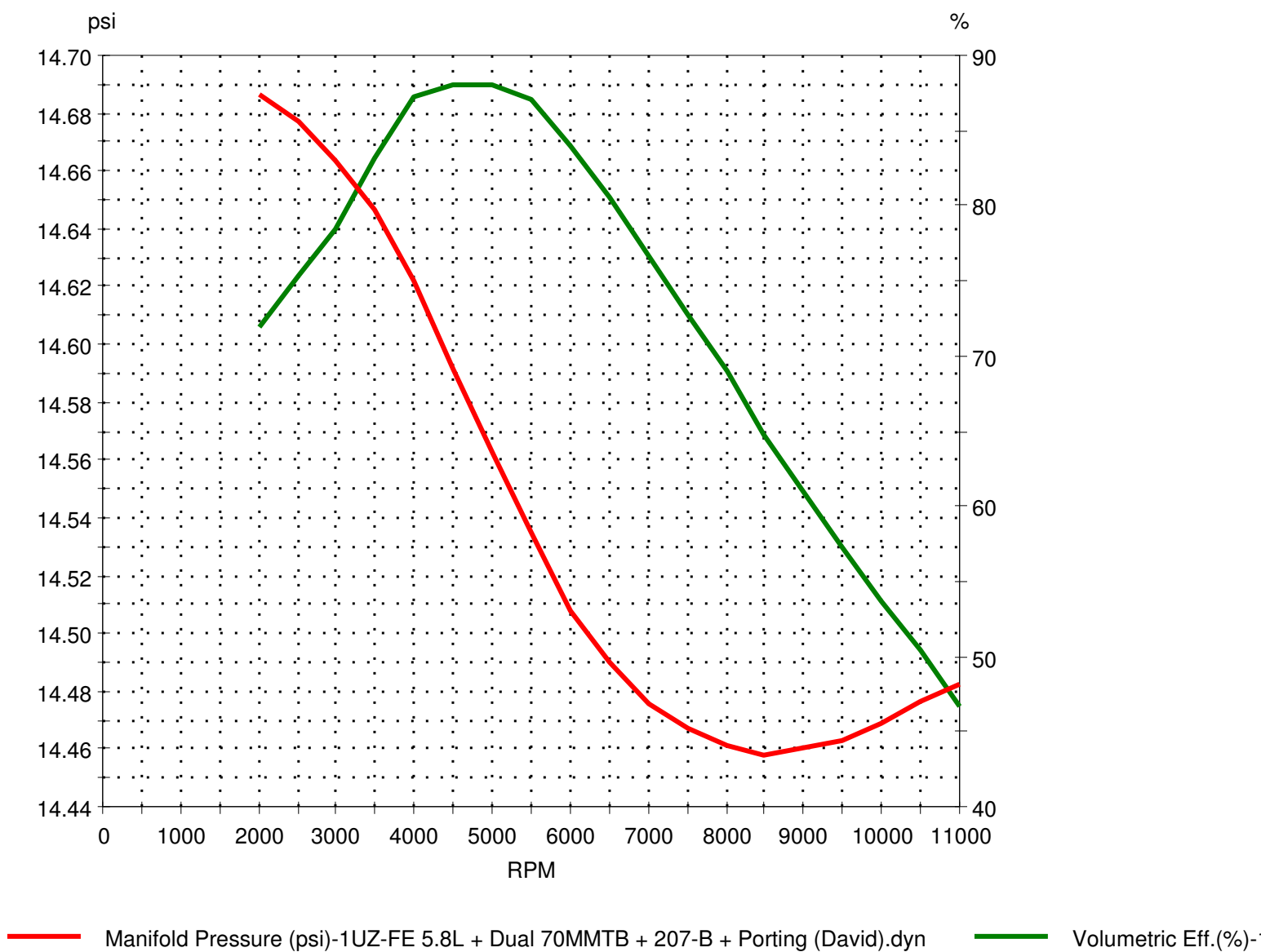
CYLINDER HEAD AIRFLOW DATA

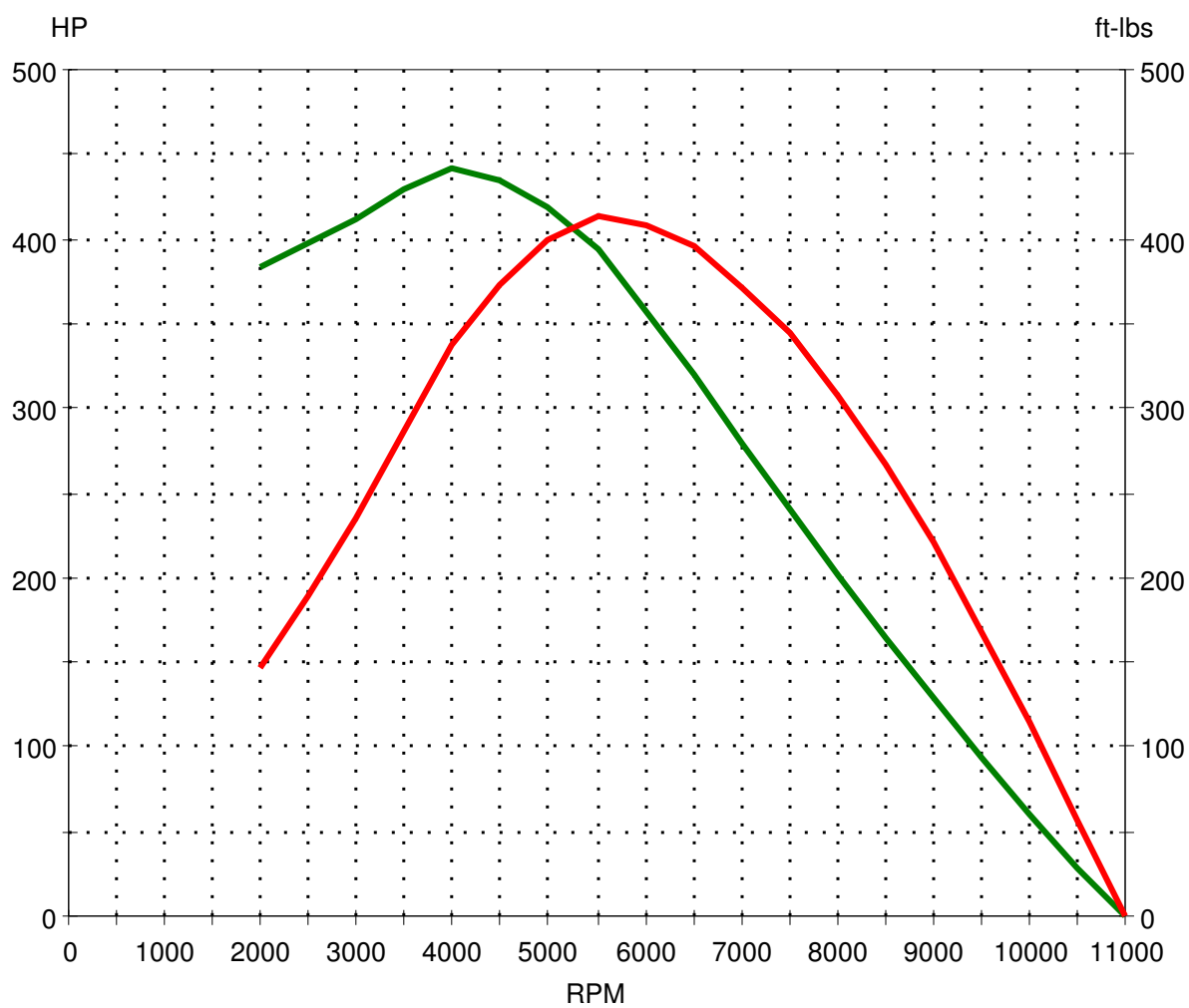
Description: 4-Valve Head/Ported With Large Valves

<u>Intake Valve</u>		<u>Exhaust Valve</u>	
Test Diameter:	33.50 mm	Test Diameter:	27.99 mm
Pressure Drop:	127.00 cmH2O	Pressure Drop:	127.00 cmH2O
<u>Lift: mm</u>	<u>Flow: cfm</u>	<u>Lift: mm</u>	<u>Flow: cfm</u>
1.27	28.6	1.27	20.2
2.54	60.2	2.54	39.9
3.81	91.0	3.81	62.9
5.08	113.3	5.08	73.0
6.35	133.3	6.35	81.5
7.62	142.8	7.62	89.9
8.89	158.1	8.89	95.6
10.16	172.9	10.16	104.0
11.43	179.4	11.43	107.1
12.70	184.1	12.70	111.1

CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	IMEP Pressure	FMEP Pressure	BMEP Pressure
2000	146	383	14.69	71.9	212.6	17.1	165.6
2500	189	398	14.68	75.4	211.0	18.4	171.9
3000	235	412	14.66	78.4	214.7	19.8	178.0
3500	287	430	14.65	83.2	220.2	21.3	185.9
4000	337	442	14.62	87.2	225.4	22.9	191.0
4500	373	435	14.59	88.1	223.9	24.6	188.1
5000	399	419	14.56	88.0	218.1	26.4	180.9
5500	413	395	14.53	87.0	209.1	28.2	170.6
6000	408	357	14.51	83.9	193.9	30.2	154.5
6500	396	320	14.49	80.5	178.8	32.3	138.2
7000	371	279	14.48	76.7	162.1	34.5	120.4
7500	344	241	14.47	72.7	147.2	36.8	104.1
8000	308	202	14.46	68.9	131.7	39.2	87.3
8500	266	165	14.46	64.8	117.0	41.7	71.1
9000	221	129	14.46	61.0	103.3	44.2	55.8
9500	169	93	14.46	57.2	89.6	46.9	40.3
10000	115	60	14.47	53.6	77.4	49.7	26.1
10500	57	29	14.48	50.4	65.7	52.6	12.4
11000	0	0	14.48	46.7	53.2	55.6	-2.3





— Power (HP)-1UZ-FE 5.8L + Dual 70MMTB + 207-B + Porting (David).dyn
— Torque (ft-lbs)-1UZ-FE 5.8L + Dual 70MMTB + 207-B + Porting (David).dyn