

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:	750.0 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

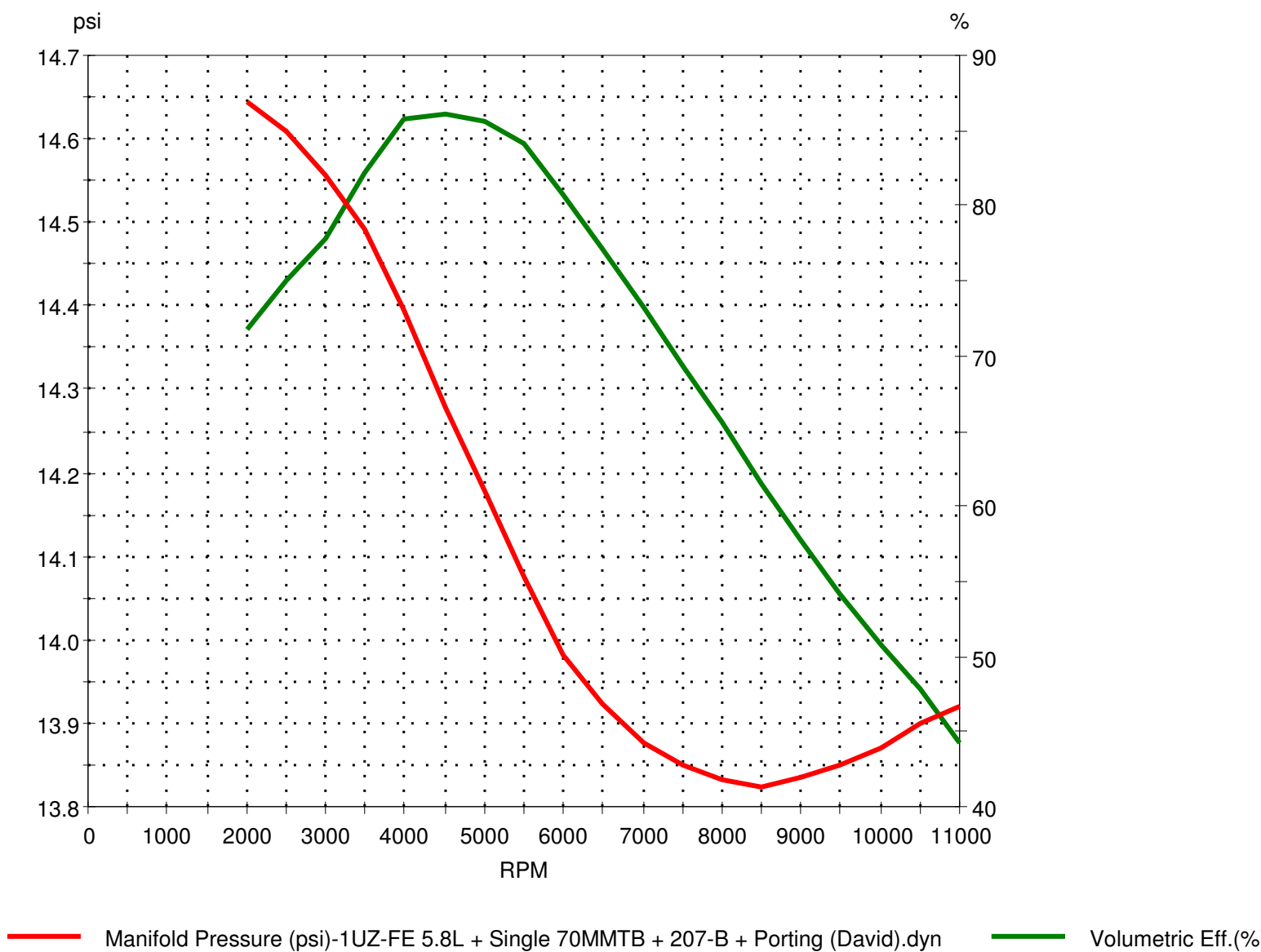
CYLINDER HEAD AIRFLOW DATA

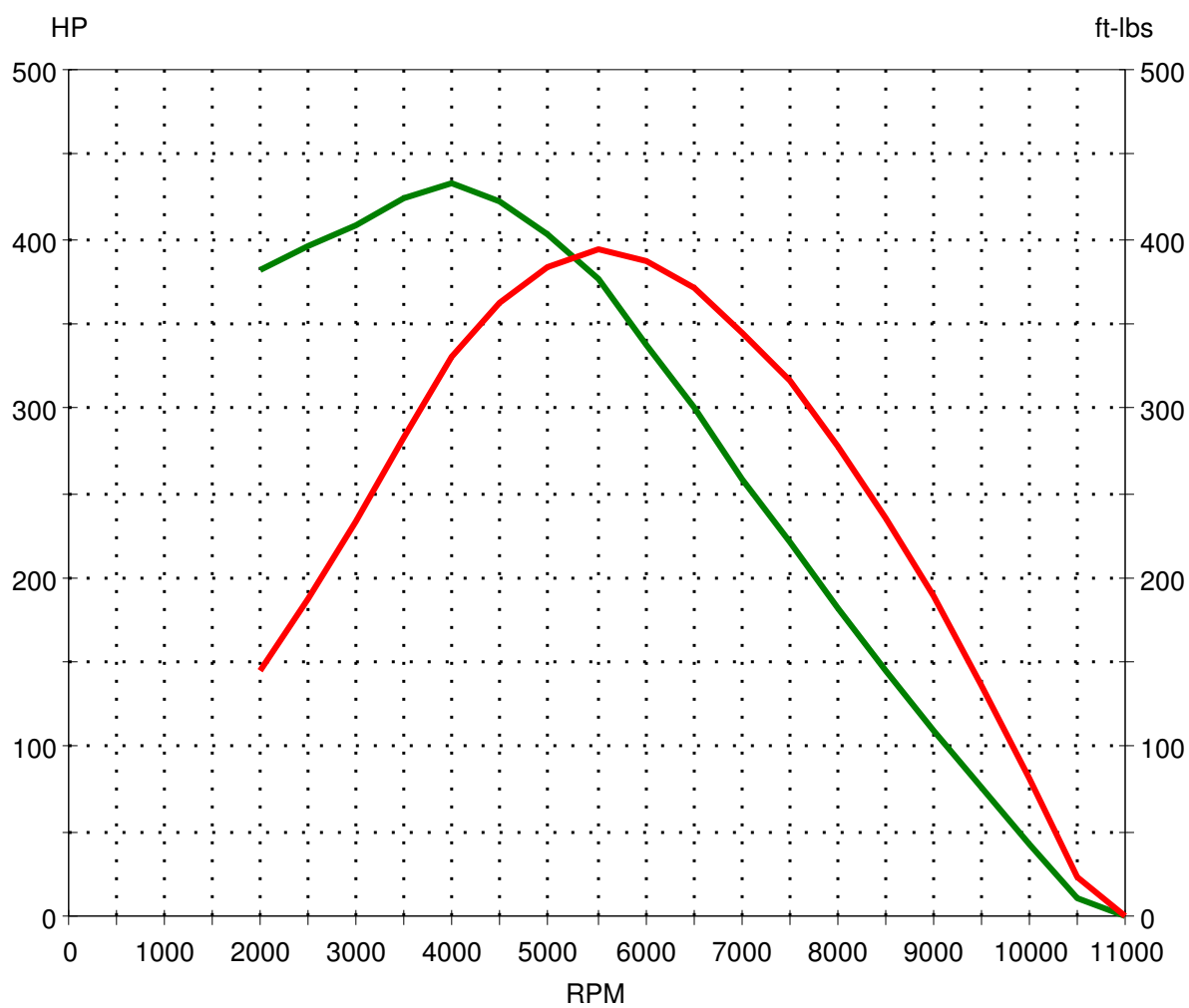
Description: 4-Valve Head/Ported With Large Valves

<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	145	381	14.64	71.7	211.7	17.1	164.9
2500	188	395	14.61	75.0	209.6	18.4	170.7
3000	233	408	14.56	77.8	212.7	19.8	176.1
3500	282	424	14.49	82.2	217.2	21.3	183.1
4000	330	433	14.39	85.8	221.1	22.9	187.0
4500	362	422	14.28	86.1	218.0	24.6	182.4
5000	384	403	14.18	85.5	211.1	26.4	174.3
5500	394	376	14.08	84.1	200.7	28.2	162.7
6000	386	338	13.98	80.7	185.0	30.2	146.0
6500	371	300	13.92	77.1	169.6	32.3	129.5
7000	345	258	13.88	73.2	152.9	34.5	111.7
7500	316	221	13.85	69.3	138.1	36.8	95.6
8000	278	182	13.83	65.6	122.7	39.2	78.8
8500	235	145	13.82	61.5	108.3	41.7	62.8
9000	189	110	13.84	57.8	94.7	44.2	47.6
9500	136	75	13.85	54.2	81.5	46.9	32.6
10000	81	43	13.87	50.7	69.3	49.7	18.5
10500	22	11	13.90	47.7	57.7	52.6	4.8
11000	0	0	13.92	44.2	45.6	55.6	-9.4





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