

## 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: 34.50 mm	Exhaust Valve: 29.00 mm

## COMPRESSION

Compression Ratio: 12.50	Combustion Space: 63.03 cc
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## INDUCTION

Induction Flow: 1500.0 cfm @ 3.00 inHg	Fuel: Gasoline	
Manifold Type: Sequential-Fire 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 1UZ 207-C	Cam File: Kelford 1UZ 207-C.cam		
Lifter: Solid	Lobe Center: 108.0		
Cam Specs @: Seat-To-Seat	Valve Overlap: 76.0		
Int Lift@Valve: 10.29 mm	Int Duration: 296.0		
Exh Lift@Valve: 10.16 mm	Exh Duration: 288.0		
Nominal Timing	Timing@ Adv(+)/Ret(-): 0.0		
IVO (BTDC): 44.0	IVC (ABDC): 72.0	IVO: 44.0	IVC: 72.0
EVO (BBDC): 76.0	EVC (ATDC): 32.0	EVO: 76.0	EVC: 32.0
ICA (ATDC): 104.0	ECA (BTDC): 112.0	ICA: 104.0	ECA: 112.0

## CYLINDER HEAD AIRFLOW DATA

Description: 4-Valve Head/Ported With Large Valves

Intake ValveTest Diameter: 33.50 mm  
Pressure Drop: 127.00 cmH2OExhaust ValveTest Diameter: 27.99 mm  
Pressure Drop: 127.00 cmH2OLift: mmFlow: cfm

1.27

28.6

2.54

60.2

3.81

91.0

5.08

113.3

6.35

133.3

7.62

142.8

8.89

158.1

10.16

172.9

11.43

179.4

12.70

184.1

Lift: mmFlow: cfm

1.27

20.2

2.54

39.9

3.81

62.9

5.08

73.0

6.35

81.5

7.62

89.9

8.89

95.6

10.16

104.0

11.43

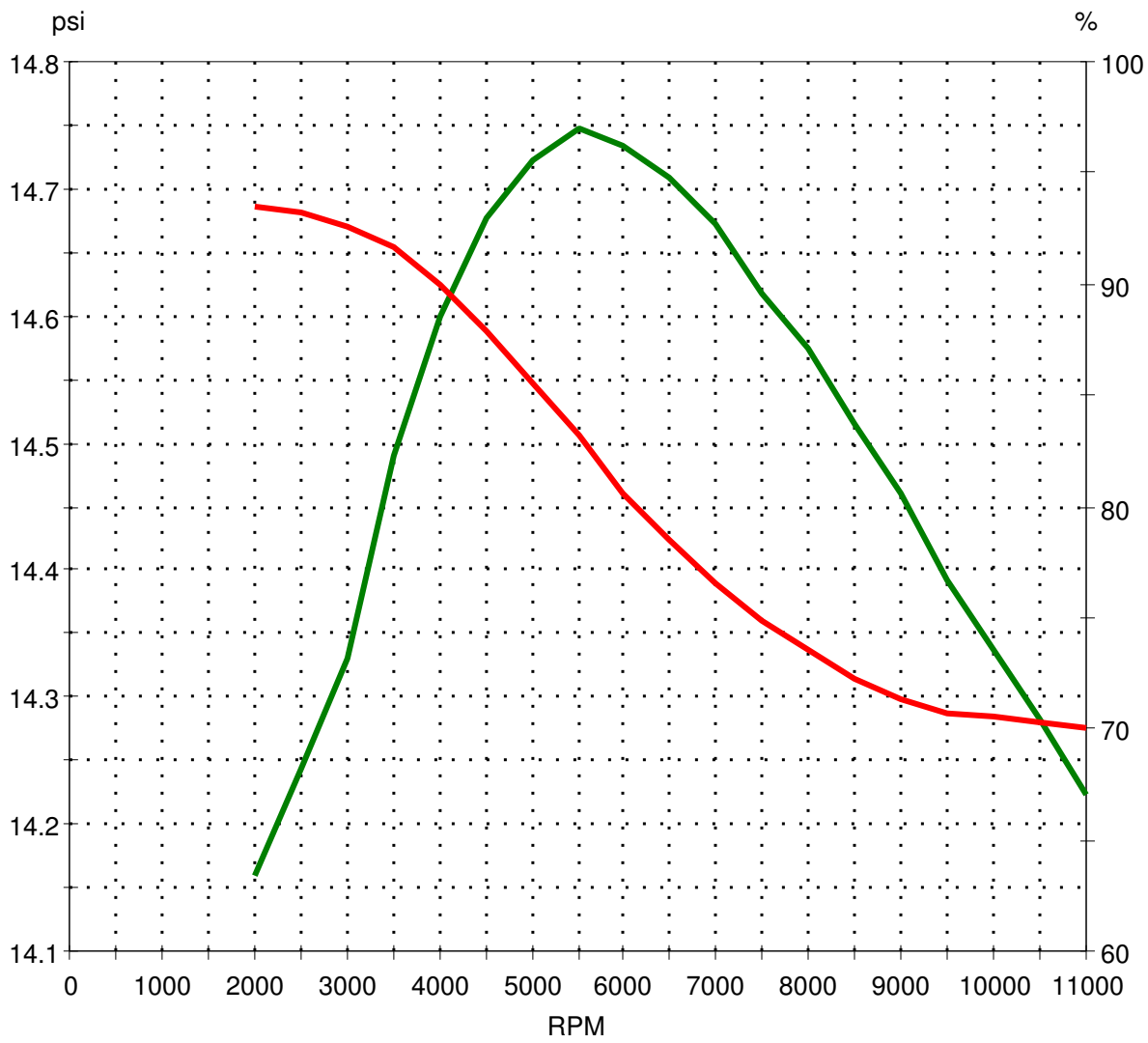
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12.70

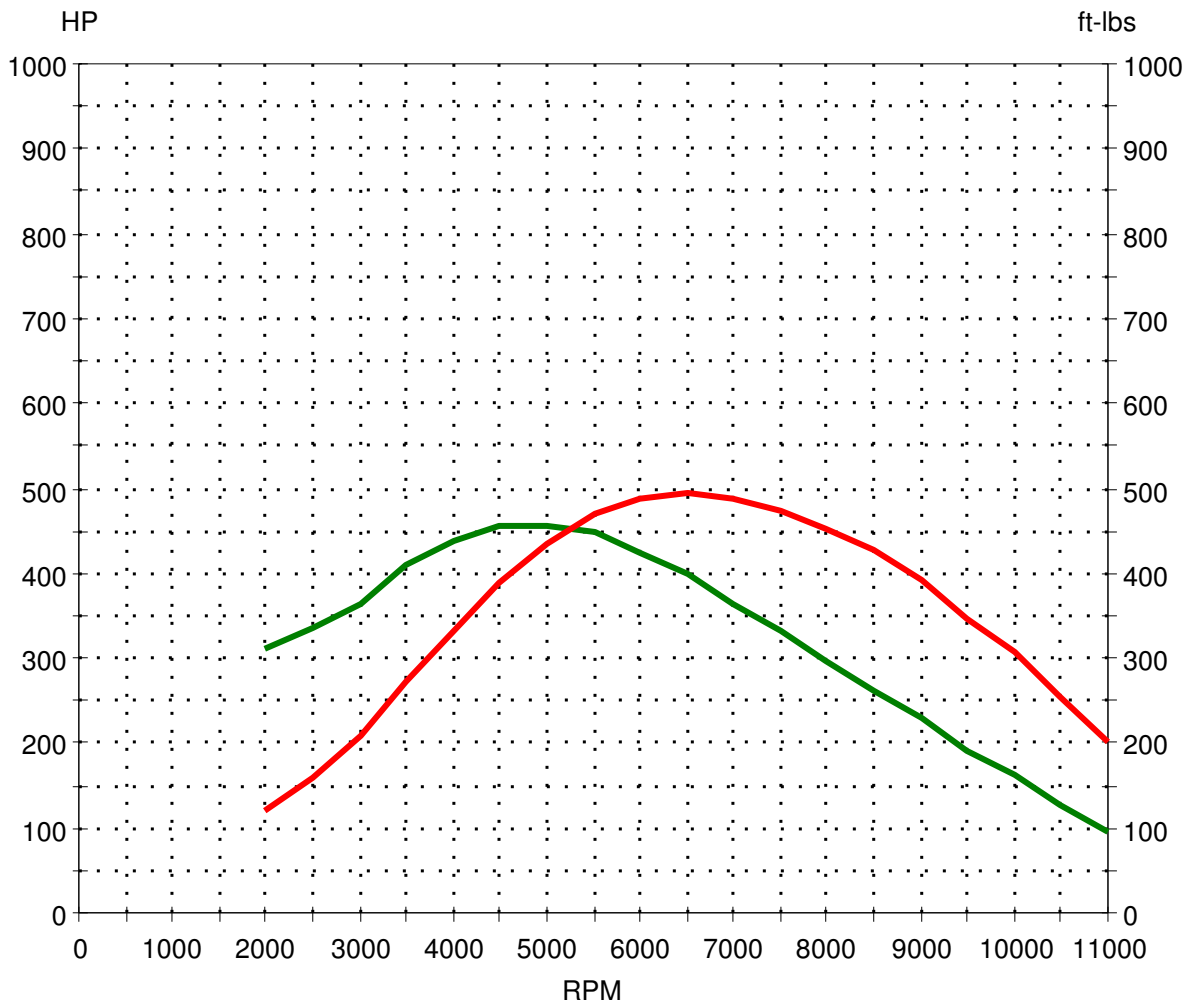
111.1

## CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	IMEP Pressure	FMEP Pressure	BMEP Pressure
2000	119	311	14.69	63.4	175.8	17.1	134.5
2500	160	336	14.68	68.2	181.1	18.4	145.3
3000	208	364	14.67	73.2	192.0	19.8	157.3
3500	273	410	14.65	82.3	210.7	21.3	177.0
4000	333	437	14.62	88.5	223.3	22.9	189.1
4500	390	455	14.59	93.0	233.1	24.6	196.7
5000	435	457	14.55	95.6	235.7	26.4	197.5
5500	469	448	14.51	97.0	233.4	28.2	193.6
6000	486	426	14.46	96.2	225.2	30.2	183.9
6500	493	398	14.42	94.8	214.8	32.3	172.1
7000	486	365	14.39	92.6	201.6	34.5	157.7
7500	475	332	14.36	89.6	189.0	36.8	143.6
8000	454	298	14.34	87.1	175.5	39.2	128.7
8500	426	263	14.31	83.7	162.2	41.7	113.8
9000	392	229	14.30	80.6	149.0	44.2	98.8
9500	346	191	14.29	76.6	134.4	46.9	82.6
10000	308	162	14.29	73.5	123.8	49.7	69.9
10500	255	128	14.28	70.4	111.0	52.6	55.1
11000	201	96	14.28	67.0	99.5	55.6	41.5



Manifold Pressure (psi)-1UZ-FE 5.8L + Dual 70mm TB + 12.5CR + 207-C + 1mm OS Valves + Porting (David).dyn



— Power (HP)-1UZ-FE 5.8L + Dual 70mm TB + 12.5CR + 207-C + 1mm OS Valves + Porting (David).dyn  
— Torque (ft-lbs)-1UZ-FE 5.8L + Dual 70mm TB + 12.5CR + 207-C + 1mm OS Valves + Porting (David).dyn