

## SHORT BLOCK

Block: Toyota 4.7L	Bore: 3.445 in	Stroke: 3.248 in
Cylinders: 8	Cyl Vol: 496.09 cc	Total Vol: 242.2 ci

## CYLINDER HEADS

Cylinder Heads: Custom Airflow		
Airflow File: 1UZ-FE Mod.flw		
Intake Valves: 2	Exhaust Valves: 2	
Intake Valve: 1.319 in	Exhaust Valve: 1.102 in	

## COMPRESSION

Compression Ratio: 8.50	Combustion Space: 66.15 cc
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## INDUCTION

Induction Flow: 900.0 cfm @ 3.00 inHg	Fuel: Gasoline
Manifold Type: Forced Induction	N20: 0.0 lbs/min
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Blower: Custom Roots Blower	Intercooler: 75.0 %
Flow: 440.0 cfm	Pressure Ratio: ***
	Boost Limit: 14.0 psi
Speed: *** rpm	Belt Gear Ratio: 1.87
	Surge Flow: *** cfm
Eff: 80.0 %	Internal Gear Ratio: ***

## EXHAUST

Exhaust System: Forced Induction Exhaust
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## CAMSHAFT

Camshaft Type: Kelford 207-S1	Cam File: Kelford 1UZ 207-S1.cam
Lifter: Solid	Lobe Center: 113.0
Cam Specs @: Seat-To-Seat	Valve Overlap: 42.0
Int Lift@Valve: 0.330 in	Int Duration: 264.0
Exh Lift@Valve: 0.350 in	Exh Duration: 272.0
Nominal Timing	Timing@ Adv(+)/Ret(-): 0.0
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IVO (BTDC): 15.0	IVC (ABDC): 69.0
EVO (BBDC): 65.0	EVC (ATDC): 27.0
ICA (ATDC): 117.0	ECA (BTDC): 109.0

## CYLINDER HEAD AIRFLOW DATA

Description: 4-Valve Head/Ported With Large Valves

Intake ValveTest Diameter: 1.319 in  
Pressure Drop: 50.0 inH2O

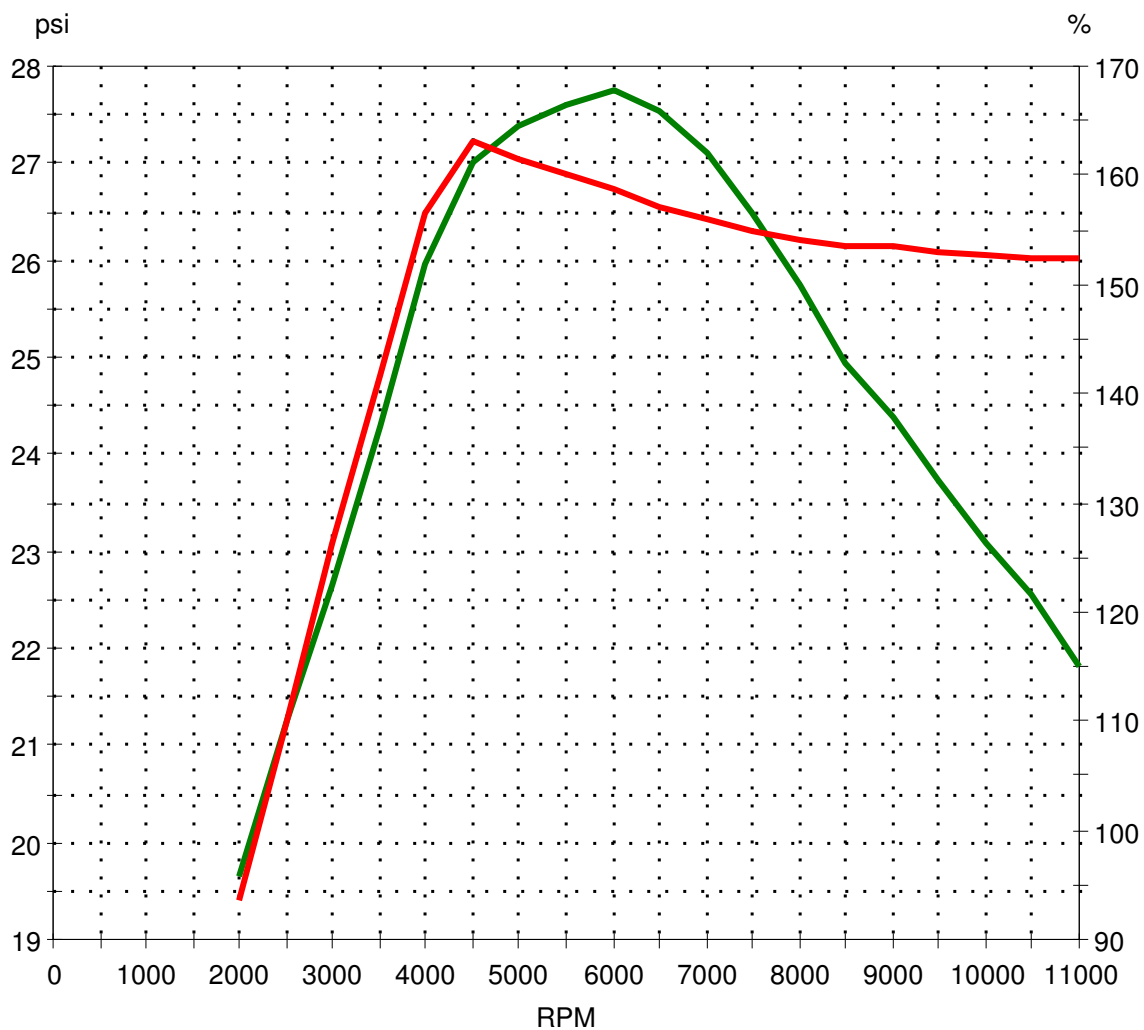
<u>Lift: in</u>	<u>Flow: cfm</u>
0.050	28.6
0.100	60.2
0.150	91.0
0.200	113.3
0.250	133.3
0.300	142.8
0.350	158.1
0.400	172.9
0.450	179.4
0.500	184.1

Exhaust ValveTest Diameter: 1.102 in  
Pressure Drop: 50.0 inH2O

<u>Lift: in</u>	<u>Flow: cfm</u>
0.050	20.2
0.100	39.9
0.150	62.9
0.200	73.0
0.250	81.5
0.300	89.9
0.350	95.6
0.400	104.0
0.450	107.1
0.500	111.1

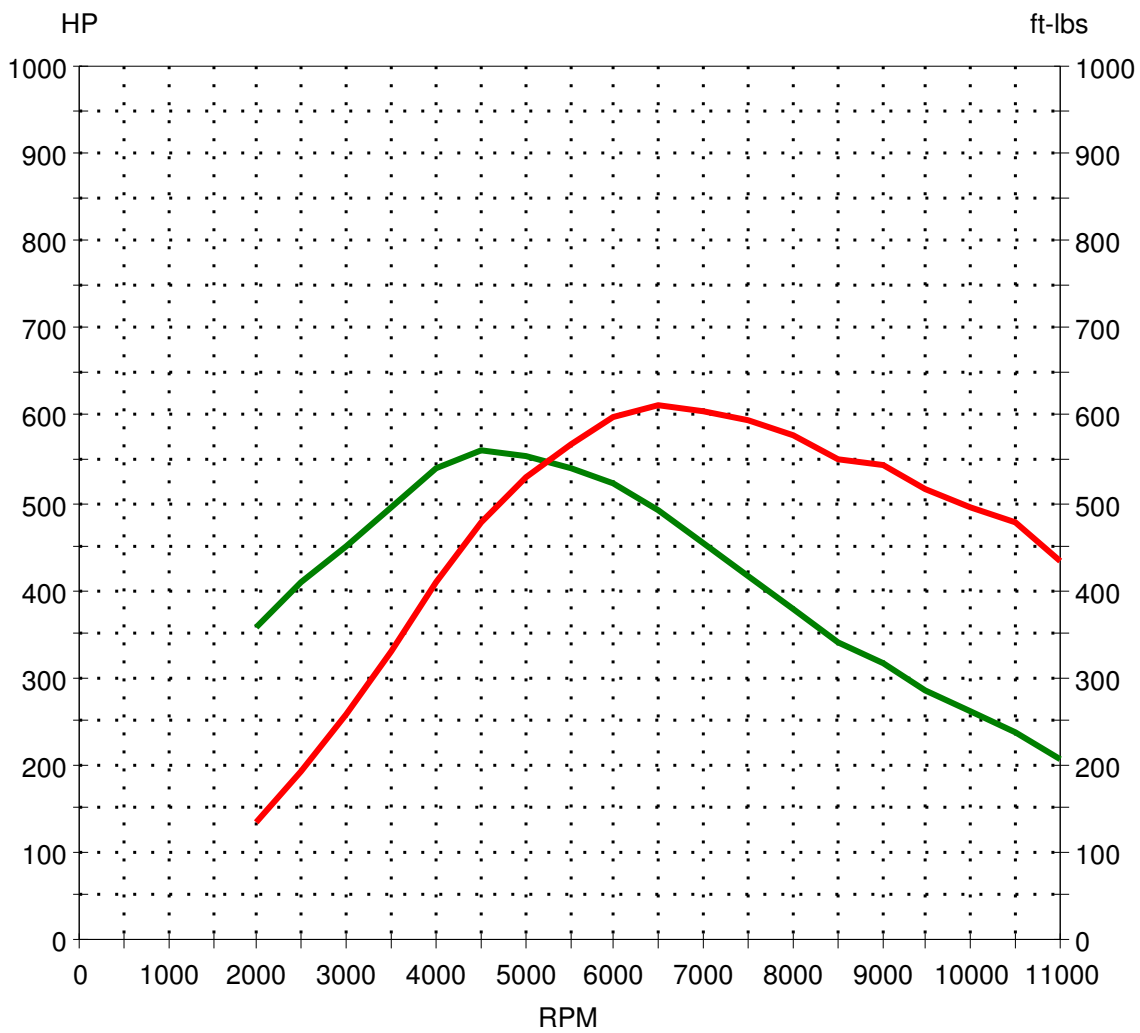
## CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	IMEP Pressure	FMEP Pressure	BMEP Pressure
2000	136	356	19.40	95.7	282.5	17.0	225.0
2500	194	407	21.27	110.0	306.5	18.3	257.3
3000	257	450	23.07	122.5	330.5	19.6	283.9
3500	329	493	24.81	136.9	354.4	21.1	311.5
4000	410	538	26.47	151.9	382.9	22.6	339.9
4500	479	559	27.22	161.1	398.2	24.3	352.8
5000	527	554	27.05	164.6	396.8	26.0	349.8
5500	567	541	26.90	166.5	389.9	27.8	341.6
6000	599	524	26.73	167.7	380.5	29.8	330.8
6500	610	493	26.56	165.8	361.6	31.8	311.1
7000	606	454	26.41	161.9	338.0	33.9	286.8
7500	596	417	26.30	156.6	315.4	36.1	263.5
8000	576	378	26.21	149.9	291.6	38.4	238.8
8500	550	340	26.16	142.8	268.4	40.9	214.6
9000	543	317	26.13	137.9	255.5	43.4	200.2
9500	516	285	26.07	132.0	236.9	46.0	180.1
10000	496	260	26.05	126.3	223.0	48.6	164.4
10500	477	238	26.03	121.5	211.0	51.4	150.5
11000	433	206	26.01	114.9	192.6	54.3	130.4



Manifold Pressure (psi)-1UZ-FE SC (zuffen) 440CFM.dyn

Volumetric Eff.(%)-1UZ-FE SC (zuffen) 440CFM.dyn



— Power (HP)-1UZ-FE SC (zuffen) 440CFM.dyn      — Torque (ft-lbs)-1UZ-FE SC (zuffen) 440CFM.dyn