

SHORT BLOCK

Block: Toyota 1UZ	Bore: 87.50 mm	Stroke: 82.50 mm
Cylinders: 8	Cyl Vol: 496.09 cc	Total Vol: 3968.71 cc

CYLINDER HEADS

Cylinder Heads: 4-Valve Head/Ported With Large Valves	
Airflow File: Stock 1UZ.flw	
Intake Valves: 2	Exhaust Valves: 2
Intake Valve: 33.60 mm	Exhaust Valve: 29.01 mm

COMPRESSION

Compression Ratio: 10.50	Combustion Space: 52.22 cc
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INDUCTION

Induction Flow: 1600.0 cfm @ 3.00 inHg	Fuel: Gasoline	
Manifold Type: Sequential-Fire Injection	N20: 0.0 lbs/min	
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Blower: Turbo-Warner-Ishi RHB5 393B	Intercooler: 65.0 %	
Flow: 275.0 cfm	Pressure Ratio: 1.80	Boost Limit: 14.7 psi
Speed: *** rpm	Belt Gear Ratio: ***	Surge Flow: 50.0 cfm
Eff: 76.0 %	Internal Gear Ratio: ***	

EXHAUST

Exhaust System: Small-Tube Headers With Mufflers
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CAMSHAFT

Camshaft Type: Kelford 207-A	Cam File: Kelford 1UZ 207-A.cam		
Lifter: Solid	Lobe Center: 111.0		
Cam Specs @: Seat-To-Seat	Valve Overlap: 46.0		
Int Lift@Valve: 8.38 mm	Int Duration: 264.0		
Exh Lift@Valve: 8.51 mm	Exh Duration: 272.0		
Nominal Timing	Timing@ Adv(+)/Ret(-): 0.0		
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IVO (BTDC): 24.0	IVC (ABDC): 60.0	IVO: 24.0	IVC: 60.0
EVO (BBDC): 70.0	EVC (ATDC): 22.0	EVO: 70.0	EVC: 22.0
ICA (ATDC): 108.0	ECA (BTDC): 114.0	ICA: 108.0	ECA: 114.0

CYLINDER HEAD AIRFLOW DATA

Description: 4-Valve Head/Ported With Large Valves

Intake ValveTest Diameter: 33.50 mm
Pressure Drop: 127.00 cmH2OLift: mm Flow: cfm

1.52 28.0

3.05 55.0

4.57 83.0

6.10 100.0

7.87 114.0

9.40 126.0

10.92 132.0

11.68 136.0

Exhaust ValveTest Diameter: 27.99 mm
Pressure Drop: 127.00 cmH2OLift: mm Flow: cfm

1.52 25.0

3.05 53.0

4.57 79.0

6.10 92.0

7.87 100.0

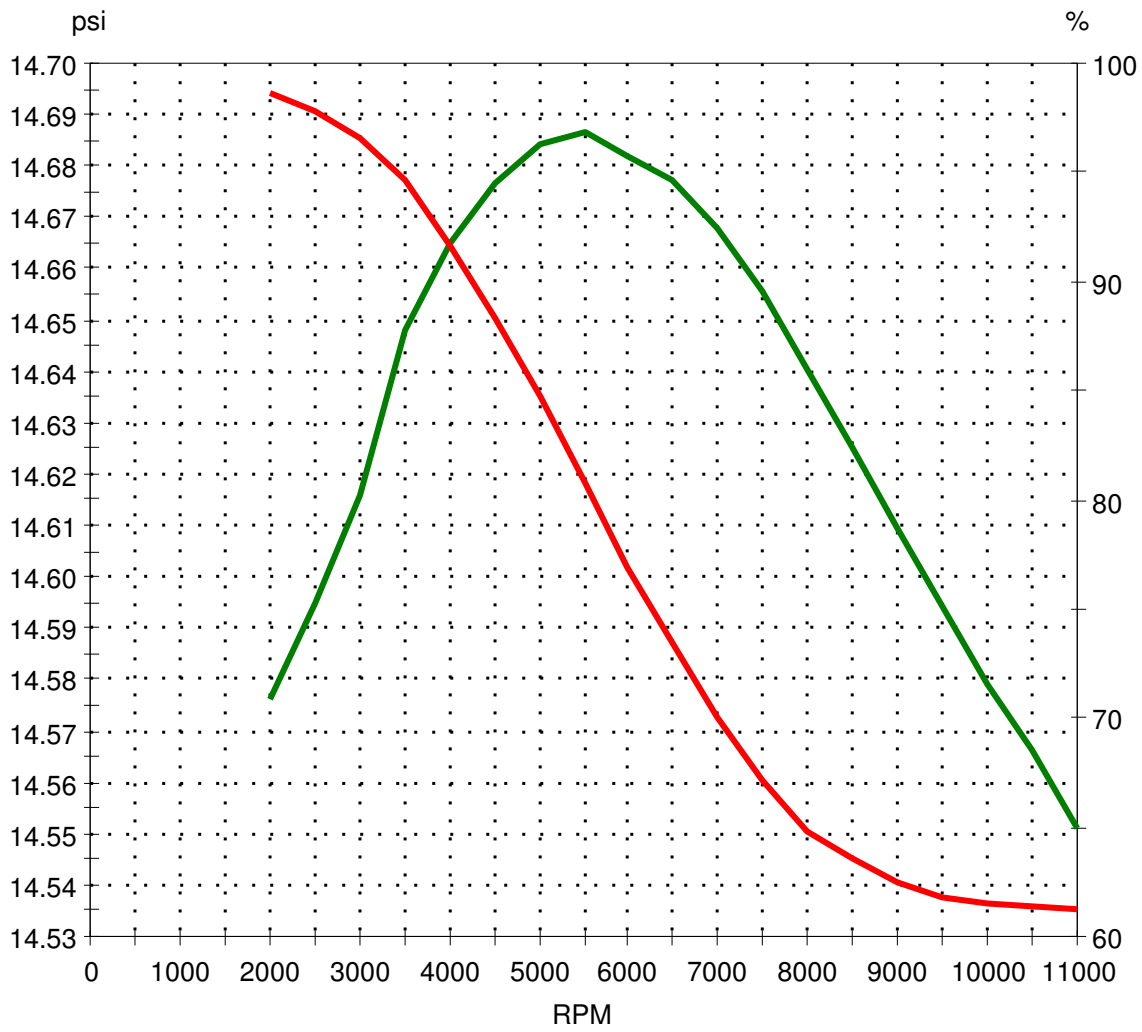
9.40 104.0

10.92 107.0

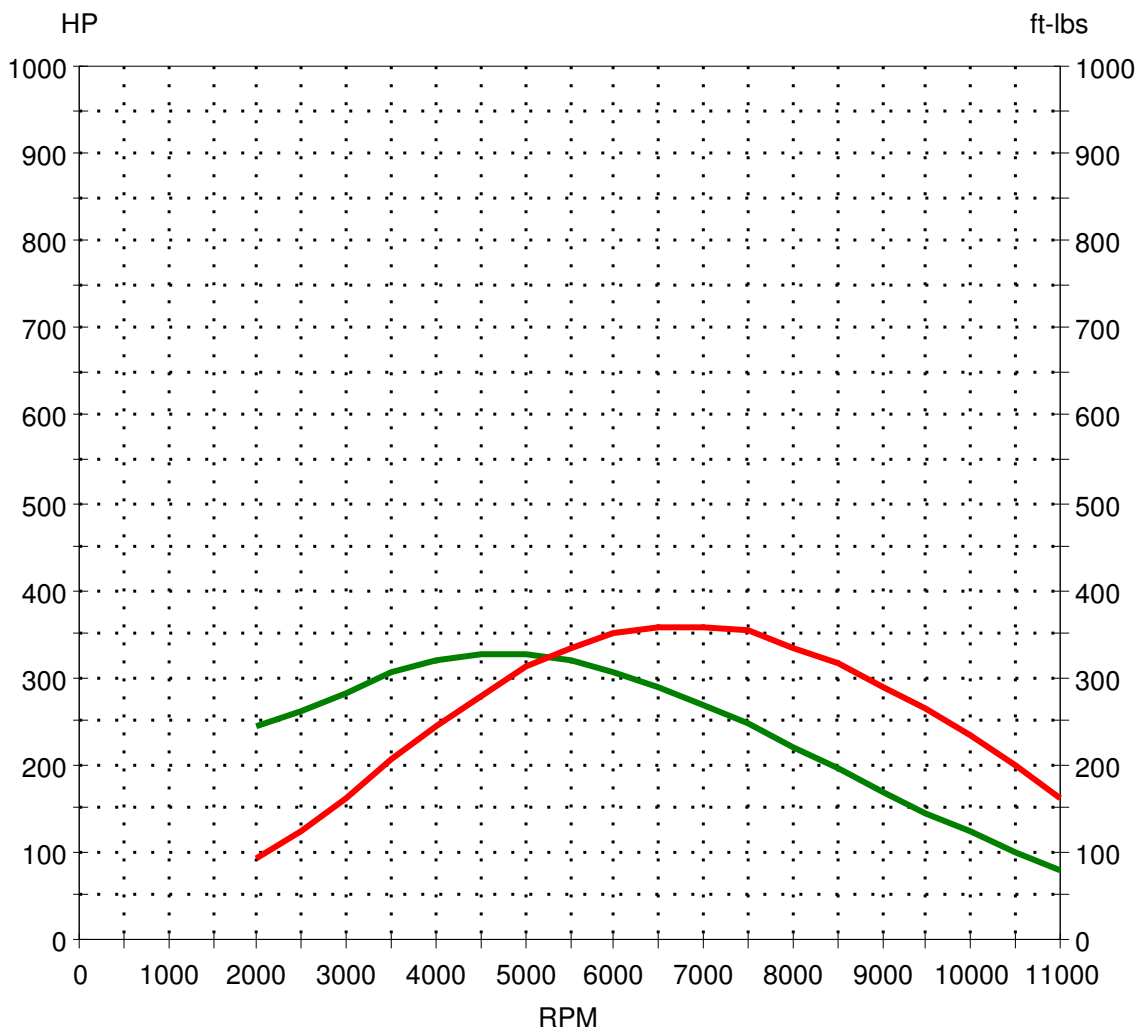
11.68 112.0

CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	IMEP Pressure	FMEP Pressure	BMEP Pressure
2000	93	244	14.69	70.8	198.8	17.0	154.1
2500	124	260	14.69	75.3	202.3	18.3	164.3
3000	160	281	14.69	80.3	213.8	19.6	177.4
3500	205	308	14.68	87.8	228.9	21.1	194.2
4000	243	319	14.66	91.8	236.3	22.6	201.6
4500	280	326	14.65	94.5	242.6	24.3	205.9
5000	311	327	14.64	96.3	244.8	26.0	206.4
5500	335	320	14.62	96.9	241.8	27.8	201.8
6000	349	306	14.60	95.8	234.3	29.8	192.9
6500	358	289	14.59	94.7	225.4	31.8	182.7
7000	357	267	14.57	92.4	212.9	33.9	168.9
7500	352	247	14.56	89.6	201.3	36.1	155.8
8000	334	219	14.55	86.0	185.0	38.4	138.3
8500	316	195	14.54	82.4	171.6	40.9	123.4
9000	290	169	14.54	78.7	156.7	43.4	107.0
9500	263	146	14.54	75.1	143.4	46.0	91.9
10000	235	123	14.54	71.5	131.1	48.6	77.8
10500	199	100	14.54	68.5	118.2	51.4	63.0
11000	162	77	14.54	65.0	106.1	54.3	48.9



— Manifold Pressure (psi)-Std + Kelford 207-A + 2JZ Valves.dyn — Volumetric Eff.(%)-Std + Kelford 207-A



— Power (HP)-Std + Kelford 207-A + 2JZ Valves.dyn — Torque (ft-lbs)-Std + Kelford 207-A + 2JZ Valves.c