

SHORT BLOCK

Short Block:	Chevy 427	Bore:	4.280 in	Stroke:	3.760 in
No. Cylinders:	8	Cylinder Volume:	886.47 cc	Total Vol:	432.8 ci

CYLINDER HEADS

Cylinder Heads: Canted/Oval Pocket Ported, Large Valves

Valve Specifications:

Intake Valves/Port:	1	Exhaust Valves/Port:	1
Intake Valve Dia:	2.200 in	Exhaust Valve Dia:	1.840 in

COMPRESSION

Compression Ratio:	10.50		
Combustion Space:	93.31 cc	Cylinder Volume:	886.47 cc

INDUCTION

Induction Flow:	750.0 cfm	@	1.50 inHg	Fuel Type:	Gasoline
Manifold Type:	Dual-Plane Std-Flow	Nitrous Injection:	0.0 lbs/min		

Forced Induction Specifications:

Blower Type:	None				
Island Flow:	*** cfm	Surge Flow:	*** cfm	Pressure Ratio:	***
Impeller Speed:	*** rpm	Belt Ratio:	***	Internal Ratio:	***
Peak Efficiency:	*** %	Boost Limit:	*** psi	Intercooler:	*** %

EXHAUST

Exhaust System: Large-Tube Headers With Mufflers

CAMSHAFT

Cam Name:	My Corvette Cam						
Intake Lift At Valve:	0.510 in	Lifter Type:	Hydraulic				
Exhaust Lift At Valve:	0.510 in	Lifter Acceleration Rate:	2.97	(Auto)			
Valve Opening/Closing Based On:	Seat-To-Seat						
Primary Timing (Seat-to-Seat):	IVO: 29.0	IVC: 61.0	EVO: 69.0	EVC: 21.0			
Secondary Timing (0.050-inch):	IVO: 6.0	IVC: 38.0	EVO: 46.0	EVC: -2.0			
Cam Installed Advanced(+)/Retarded(-):	0.0						
True IVO:	29.0	True EVO:	69.0				
True IVC:	61.0	True ICA:	106.0	True EVC:	21.0	True ECA:	114.0
Cam Timing Summary:							
Intake Duration:	270.0	Exhaust Duration:	270.0				
Intake Centerline Angle:	106.0	Exhaust Centerline Angle:	114.0				
Lobe Centerline Angle:	110.0	Valve Overlap:	50.0				

NOTES

CYLINDER HEAD AIRFLOW DATA

Description: Canted/Oval Pocket Ported, Large Valves

Intake ValveTest Diameter: 2.190 in
Pressure Drop: 28.0 inH2OLift: in Flow: cfm

0.200 167.0

0.300 227.0

0.400 279.0

0.500 307.0

0.550 311.0

0.600 311.0

0.650 311.0

0.700 311.0

Exhaust ValveTest Diameter: 1.880 in
Pressure Drop: 28.0 inH2OLift: in Flow: cfm

0.200 141.0

0.300 185.0

0.400 213.0

0.500 228.0

0.550 228.0

0.600 228.0

0.650 238.0

0.700 238.0

CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	BMEP Pressure
2000	189	497	14.66	77.0	175.8
2500	238	499	14.62	79.4	176.4
3000	291	510	14.58	81.8	180.3
3500	355	533	14.53	86.8	188.4
4000	406	534	14.45	88.9	188.6
4500	450	525	14.36	89.6	185.6
5000	480	504	14.28	89.1	178.0
5500	488	466	14.19	87.0	164.8
6000	476	416	14.12	83.1	147.1
6500	444	358	14.08	78.2	126.6
7000	408	306	14.07	73.9	108.1
7500	361	253	14.05	69.0	89.3
8000	305	200	14.06	64.7	70.8
8500	243	150	14.06	60.0	53.1
9000	175	102	14.08	55.9	36.2
9500	99	55	14.11	51.7	19.4
10000	21	11	14.14	47.8	3.8
10500	0	0	14.17	44.2	-11.8
11000	0	0	14.20	40.8	-25.9

PROTOOLS CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Indicated Power	Frictional Power	Pumping Power	Mech. Eff %	Induction Airflow	Piston Force	Piston Speed	IMEP Pressure	FMEP Pressure	PMEP Pressure
2000	189	212	15	5	90.8	193.0	2785	1253	193.6	13.4	4.4
2500	238	267	19	8	90.1	248.4	2816	1567	195.7	13.8	5.6
3000	291	330	23	11	89.6	307.3	2896	1880	201.3	14.1	6.9
3500	355	404	27	16	89.2	380.4	3038	2193	211.1	14.4	8.4
4000	406	466	33	21	88.4	445.1	3068	2507	213.3	15.0	9.7
4500	450	522	39	27	87.4	504.8	3056	2820	212.4	15.8	10.9
5000	480	565	47	32	86.0	557.9	2977	3133	206.9	17.1	11.8
5500	488	589	57	37	84.1	599.1	2820	3447	196.0	18.9	12.3
6000	476	593	70	41	81.4	624.2	2601	3760	180.8	21.3	12.4
6500	444	579	86	43	77.8	636.2	2343	4073	162.9	24.1	12.1
7000	408	562	104	45	73.5	648.0	2115	4387	147.0	27.2	11.8
7500	361	537	125	46	68.1	648.2	1885	4700	131.0	30.5	11.2
8000	305	505	149	46	61.3	648.0	1662	5013	115.5	34.1	10.6
8500	243	468	176	45	52.6	639.0	1451	5327	100.8	38.0	9.8
9000	175	428	207	44	41.5	629.7	1254	5640	87.1	42.0	9.0
9500	99	383	240	42	26.3	615.3	1061	5953	73.7	46.3	8.0
10000	21	337	277	38	6.2	599.0	886	6267	61.6	50.7	7.0
10500	0	284	318	34	-23.9	581.6	713	6580	49.5	55.4	5.9
11000	0	236	362	30	-66.0	562.4	564	6893	39.2	60.2	4.9



