

## SHORT BLOCK

Short Block:	Chevy 350				
No. Cylinders:	8	Bore:	4.030 in	Rod Length:	5.700 in
Total Volume:	355.5 ci	Stroke:	3.484 in	Rod Ratio:	1.636

## CYLINDER HEADS

Cylinder Heads: AirFlowResearch 190

## Valve Specifications:

In take Valves/Port:	1	Exhaust Valves/Port:	1
In take Valve Dia:	2.020 in	Exhaust Valve Dia:	1.600 in

## COMPRESSION

Compression Ratio:	9.80		
Combustion Space:	82.75 cc	Cylinder Volume:	728.25 cc

## INDUCTION

Induction Flow:	700.0 cfm @ 1.50 inHg	Fuel Type:	Gasoline
Manifold Type:	Tuned-Port Injection	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: Small-Tube Headers With Mufflers

## CAMSHAFT

Cam Name: LPE219\_112LSA

In take Lift At Valve:	0.562 in	Lifter Type:	Roller Hydraulic
Exhaust Lift At Valve:	0.562 in	Lifter Acceleration Rate:	3.11 (Auto)

Valve Opening/Closing Based On: Seat-To-Seat

Primary Timing (Seat-to-Seat):	IVO: 23.0	IVC: 67.0	EVO: 67.0	EVC: 23.0
Secondary Timing (0.050-inch):	IVO: -2.5	IVC: 41.5	EVO: 41.5	EVC: -2.5

Cam Installed Advanced(+)/Retarded(-): 0.0

True IVO:	23.0	True EVO:	67.0				
True IVC:	67.0	True ICA:	112.0	True EVC:	23.0	True ECA:	112.0

## Cam Timing Summary:

In take Duration:	270.0	Exhaust Duration:	270.0
In take Centerline Angle:	112.0	Exhaust Centerline Angle:	112.0
Lobe Centerline Angle:	112.0	Valve Overlap:	46.0

## NOTES

1.6 Rocker Ratio.

## CYLINDER HEAD AIRFLOW DATA

Description: AirFlowResearch 190

Intake Valve

Test Diameter: 2.020 in  
 Pressure Drop: 28.0 inH2O  
 Valves Per Port: 1

<u>Lift: in</u>	<u>Flow: cfm</u>
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0.050	40.0
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0.100	71.0
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0.200	144.0
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0.300	208.0
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0.400	244.0
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0.500	262.0
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0.600	261.0
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Exhaust Valve

Test Diameter: 1.600 in  
 Pressure Drop: 28.0 inH2O  
 Valves Per Port: 1

<u>Lift: in</u>	<u>Flow: cfm</u>
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0.050	31.0
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0.100	67.0
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0.200	121.0
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0.300	157.0
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0.400	188.0
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0.500	202.0
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0.600	211.0
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## CALCULATED POWER AND ENGINE PRESSURES

Engine RPM	Power (Fly)	Torque (Fly)	Int Man Pressure	Vol Eff %	BMEP Pressure
1000	66	347	14.69	69.2	147.2
1500	115	401	14.68	75.0	170.2
2000	167	440	14.66	81.8	186.5
2500	213	448	14.63	84.5	190.1
3000	256	449	14.59	86.1	190.5
3500	295	443	14.55	86.5	188.0
4000	329	432	14.50	86.9	183.4
4500	353	412	14.45	85.9	175.0
5000	365	383	14.40	83.7	162.5
5500	361	345	14.35	80.5	146.2
6000	340	298	14.32	75.8	126.4
6500	323	261	14.30	72.7	110.7
7000	293	220	14.28	68.9	93.3
7500	260	182	14.26	65.0	77.3
8000	217	143	14.26	61.3	60.5
8500	173	107	14.26	57.4	45.4
9000	122	71	14.26	53.7	30.2
9500	66	36	14.27	50.0	15.4
10000	9	5	14.29	46.5	2.0
10500	0	0	14.31	43.2	0.0
11000	0	0	14.33	40.0	0.0
11500	0	0	14.35	37.0	0.0
12000	0	0	14.38	34.2	0.0
12500	0	0	14.40	31.5	0.0
13000	0	0	14.43	29.0	0.0
13500	0	0	14.45	26.6	0.0
14000	0	0	14.47	24.4	0.0
14500	0	0	14.50	22.3	0.0

## 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
1000	66	73	7	0	90.3	71.2	2079	581	163.0	15.1	0.7
1500	115	127	11	1	90.4	115.7	2401	871	188.2	16.9	1.1
2000	167	186	17	1	90.2	168.2	2638	1161	206.8	18.6	1.7
2500	213	238	23	2	89.5	217.4	2707	1452	212.3	20.1	2.1
3000	256	289	29	3	88.8	265.6	2737	1742	214.5	21.5	2.6
3500	295	336	36	5	87.9	311.3	2729	2032	213.9	22.9	3.0
4000	329	379	44	6	86.8	357.6	2694	2323	211.2	24.4	3.4
4500	353	413	52	7	85.5	397.5	2610	2613	204.6	25.9	3.7
5000	365	435	62	9	83.8	430.7	2474	2903	193.9	27.5	3.9
5500	361	443	72	10	81.5	455.2	2288	3194	179.4	29.2	3.9
6000	340	435	84	10	78.3	468.1	2058	3484	161.4	31.1	3.9
6500	323	431	97	11	75.0	486.1	1883	3774	147.7	33.1	3.8
7000	293	416	111	12	70.5	496.3	1688	4065	132.3	35.3	3.7
7500	260	399	127	12	65.2	501.8	1512	4355	118.6	37.7	3.6
8000	217	374	145	12	58.1	504.5	1328	4645	104.1	40.3	3.3
8500	173	349	164	12	49.6	501.9	1167	4936	91.5	43.0	3.1
9000	122	319	186	11	38.3	497.0	1008	5226	79.0	45.9	2.8
9500	66	285	209	11	23.0	488.4	854	5516	66.9	49.0	2.5
10000	9	253	234	10	3.5	478.2	720	5807	56.4	52.2	2.3
10500	0	216	262	9	0.0	466.5	584	6097	45.8	55.5	1.9
11000	0	179	292	8	0.0	453.1	462	6387	36.2	59.1	1.6
11500	0	135	324	6	0.0	438.2	333	6678	26.1	62.8	1.2
12000	0	96	359	5	0.0	421.7	227	6968	17.8	66.6	0.9
12500	0	56	396	3	0.0	405.3	126	7258	9.9	70.6	0.5
13000	0	12	436	1	0.0	388.0	25	7549	2.0	74.7	0.1
13500	0	0	477	0	0.0	369.6	0	7839	0.0	78.8	0.0
14000	0	0	522	0	0.0	351.4	0	8129	0.0	83.0	0.0
14500	0	0	569	0	0.0	333.2	0	8420	0.0	87.4	0.0



