

		KINETICS 5000 watts								
	Time (seconds)	Displacement (in)	Gas Pressure (PSI)	Gas Thrust Force (lbs)	Hydraulic Load (lbs)	Net Linear Force (lbs)	Frame Acceleration (ft/sÂ²)	Piston Velocity (ft/s)	Stored Piston Energy (ft-lbs)	
	0	0	441	5541.8	5385	156.8	4.1	0	0	
	0.046	0.67	441	5541.8	5385	156.8	4.1	0.68	8.8	
	0.092	1.33	441	5541.8	5385	156.8	4.1	0.96	17.5	
	0.138	2	441	5541.8	5385	156.8	4.1	1.17	26.2	
	0.185	2.67	441	5541.8	5385	156.8	4.1	1.35	34.9	
	0.231	3.33	441	5541.8	5385	156.8	4.1	1.51	43.6	
	0.243	4	441	5541.8	5385	156.8	4.1	1.65	52.3	
	0.245	4.08	15	188.5	5385	-5196.5	-135.2	1.63	51.1	
	0.269	4.8	13.2	165.8	5385	-5219.2	-135.8	1.44	40.1	
	0.301	5.6	11.5	144.5	5385	-5240.5	-136.3	1.1	23.3	
	0.345	6.4	10.2	128.1	5385	-5256.9	-136.8	0.75	10.8	
	0.413	7.2	9.2	115.6	5385	-5269.4	-137.1	0.43	3.6	
	0.506	7.6	8.8	110.6	5385	-5274.4	-137.2	0.22	0.9	
	0.6	8	8.5	106.8	5385	-5278.2	-137.3	0	0	

				THERMODYNAMICS 5000 WATTS														
	Time (seconds)	1. Air Charge Remainder (%)	2. Transferred Air Mass (g)	3. Total Chamber Mass (g)	4. Gas Temperature (°F)	5. Combustion Pressure (PSI)	6. Total Hydrocarbon Mass (g)	7. Carbon Mass & Moles	8. Hydrogen Mass & Moles	9. Nitrogen Mass & Moles	10. Oxygen Mass & Moles	11. Total Molecular Count (n)	12. Incremental Fuel Mass Injected (g)	13. Rod Transmission Force (lbs)	14. Piston Displacement (in)	15. Incremental Pump Volume (cu in)	16. Storage Chamber Pressure (atm)	17. Combustion Pressure (atm)
	0	100	0	0	70	14.7	0	0.0000/0.0000	0.0000/0.0000	0.0000/0.0000	0.0000/0.0000	0	0	-5385	0	0	23	1
	0.046	91.7	0.039	0.042	380	176.4	0.003	0.0023/0.0002	0.0004/0.0002	0.0305/0.0011	0.0093/0.0003	0.0017	0.0033	-5385	0.67	3.53	21.8	12
	0.092	83.3	0.079	0.084	380	176.4	0.005	0.0046/0.0004	0.0008/0.0004	0.0609/0.0022	0.0185/0.0006	0.0033	0.0033	-5385	1.33	3.53	20.5	12
	0.138	75	0.119	0.127	380	176.4	0.008	0.0069/0.0006	0.0012/0.0006	0.0914/0.0033	0.0278/0.0009	0.005	0.0033	-5385	2	3.53	19.3	12
	0.185	66.7	0.158	0.169	380	176.4	0.011	0.0091/0.0008	0.0016/0.0008	0.1219/0.0044	0.0370/0.0012	0.0067	0.0033	-5385	2.67	3.53	18	12
	0.231	58.3	0.198	0.211	380	176.4	0.013	0.0114/0.0010	0.0020/0.0010	0.1523/0.0054	0.0463/0.0014	0.0083	0.0033	-5385	3.33	3.53	16.8	12
	0.243	50	0.237	0.253	380	176.4	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0.0033	-5385	4	3.53	15.5	12
	0.245	50	0.237	0.253	372	168.2	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5240.5	4.08	0.42	15.5	11.4
	0.269	50	0.237	0.253	315	122.5	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5269.4	4.8	3.82	15.5	8.3
	0.301	50	0.237	0.253	260	88.4	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5278.2	5.6	4.24	15.5	6
	0.345	50	0.237	0.253	210	62.1	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5310.4	6.4	4.24	15.5	4.2
	0.413	50	0.237	0.253	165	42.3	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5332.8	7.2	4.24	15.5	2.9
	0.506	50	0.237	0.253	145	35	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5355.2	7.6	2.12	15.5	2.4
	0.6	50	0.237	0.253	125	27.8	0.016	0.0137/0.0011	0.0024/0.0011	0.1828/0.0065	0.0555/0.0017	0.01	0	-5385	8	2.12	15.5	1.9