Simulation Data

Modeled on the H-Engine / made by GM

(It is rated at 6300 Bhp at 1000 rpm)

Compiled by Mark Engelmann / 2-23-06

1st line is standard engine

2nd line is dual pressure intake engine

Comparing Power

Valve timing adjusted to get *maximum power* for standard engine

(See next page for more information on valve setup)

Engine RPM	Ther. Eff.	Vol. Eff.	heat losses " hp"	Turbocharger Work hp	Crank Shaft Work hp	Total Work hp
800	42.29	2.046	1568	471	4546	5017
800	42.50	2.214	1695	630	4828	5458
800	0.4818		*(percent increase)*			8.80
900	42.23	2.042	1711	541	5082	5624
900	42.44	2.191	1835	716	5351	6068
900	0.4879		*(percent increase)*			7.90
1000	42.11	2.035	1847	613	5597	***6210***
1000	42.32	2.157	1959	800	5819	6619
1000	0.4906		*(percent increase)*			6.58
1100	41.94	2.026	1978	686	6086	6772
1100	42.15	2.115	2069	880	6229	7109
1100	0.4971		*(percent increase)*			4.97

Comparing Thermal Efficiency

Valve timing adjusted to get *maximum thermal efficiency* for standard engine

(See next page for more information on valve setup)

Engine RPM	Ther. Eff.	Vol. Eff.	heat losses " hp"	Turbocharger Work hp	Crank Shaft Work hp	Total Work hp
800	42.33	2.037	1561	466	4526	4992
800	42.73	2.005	1542	603	4358	4961
800	0.950		*(percent increase)*			-0.634
900	42.32	2.034	1702	535	5072	5606
900	42.71	1.991	1675	686	4854	5540
900	0.930		*(percent increase)*			-1.192
1000	42.25	2.029	1839	604	5600	6204
1000	42.63	1.974	1800	769	5321	6090
1000	0.910		*(percent increase)*			-1.837
1100	42.13	2.022	1969	675	6104	6779
1100	42.50	1.955	1917	851	5759	6610
1100	0.887		*(percent increase)*			-2.490