3rd point results [Speed=2500rpm/ Bmep=4bar/ Pin=1.9bar/ Tin=347K]

My hypotheses for the first point are presented in the following table:

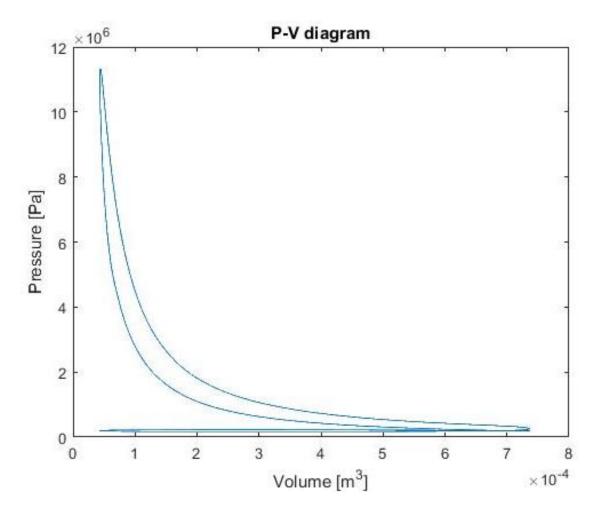| Guess values		
f (res. Gas)	0.05	-
lambda	2.542	-
R(1)	282.9	J/(kg*K)
P(1)/Pin	0.932	-
T(1)	476	K
P(IVC)/Pin	1.2365	-
T(IVC)	397.235	K

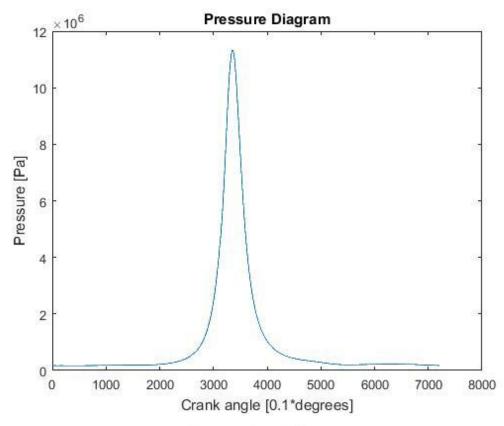The convergences of the original hypotheses are presented below in the four convergence criteria:

- error1 = 3.51 Pascal

- error2 = -0.03 K

- error3 = -0.258 J/(kg*K)

- error4 = -0.00066 bar

The results are presented below:
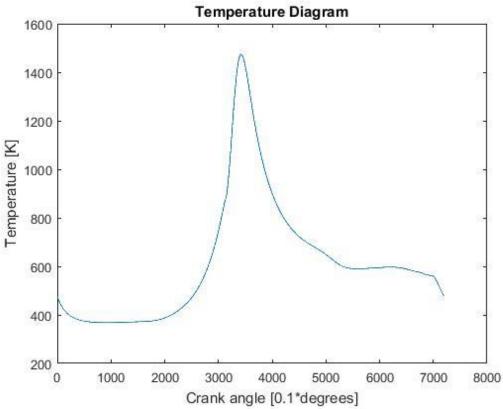
Results		
$d\varphi_{ZV}$	15	degrees
η	26.8636%	-
ev	0.9073	-
bsfc	308.78	Gr/kWh
P	43.03	hp
imep	5.4	bar

Also, the following diagrams are presented:

P-V diagram

Pressure Diagram

Pressure [Pa] vs Crank angle [0.1*degrees]

Temperature Diagram

Temperature [K] vs Crank angle [0.1*degrees]

Mass of mixture, air and fuel

mass [kg] vs Crank angle [0.1*degrees]

Legend: m total, m air, m fuel

dm/dtheta Diagram

mass flow [kg/s] vs Crank angle [0.1*degrees]

a Diagram

Crank angle [0.1*degrees]

Heat transfer Coeff a [W/m²K]

dQb/dtheta Diagram

Crank angle [0.1*degrees]

dQb/dtheta [J/degree]

Sum(dQb/dtheta) Diagram

Crank angle [0.1*degrees]

Sum(dQb/dtheta) [J/degree]

dQw/dtheta Diagram

Crank Degrees [0.1*degrees]

dQw/dtheta [J/0.1*degrees]

Density of Mixture Diagram

Density [kg/m^3] vs Crank Degrees [0.1*degrees]

k diagram

k=Cp/Cv vs Crank angles [0,1*degrees]