

Errata for Modeling and Control of Engines and Drivelines

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Unfortunately it is human to err, so mistakes are inevitable and here we have collected those that we have found.

Page 106: R should be removed from (5.22) and (5.23)

$$dT = -\frac{(\gamma - 1)\cancel{R}T}{V}dV + \frac{1}{m c_v} \left\{ dQ_{hr} - dQ_{ht} + \sum_i (h_i - u_i^*) dm_i \right\} \quad (5.22)$$

$$dT = -\frac{(\gamma - 1)\cancel{R}T}{V}dV + \frac{1}{m c_v} (dQ_{hr} - dQ_{ht}) \quad (5.23)$$

Page 112: The exponent for B should be negative in (5.33).

$$h = C_0 B^{-0.2} p^{0.8} w^{0.8} T^{-0.53} \quad (5.33)$$

Page 218: The formatting of equation (8.8) was cluttered up in the pre-production, it should read

$$\eta_t = \frac{\dot{W}_t}{\dot{W}_{t,ideal}} = \frac{1 - \frac{T_{04}}{T_{03}}}{1 - \left(\frac{p_{04}}{p_{03}}\right)^{\frac{\gamma-1}{\gamma}}} \quad (8.8)$$

Page 244: The speed is missing in the second exponent in (8.55), the equation should read

$$1 = \left(\frac{\Pi_c - \Pi_C}{\Pi_Z - \Pi_C}\right)^{C(N_{co})} + \left(\frac{\dot{m}_{c,co} - \dot{m}_Z}{\dot{m}_C - \dot{m}_Z}\right)^{C(N_{co})} \quad (8.55)$$

Page 541: The reference to paper Aquino (1981) has a mistake in the title it says “6 liter” but it should be “5 liter”.