



Figure 3.3. Two combinations of continuous heat and work flows between a high temperature (T_1) and a low temperature (T_2) heat reservoir, allowed by the First and Second Laws of Thermodynamics. The ellipse represents a device that can produce work from heat or utilize work to move heat from a lower to a higher temperature. For reversible systems (see text), Case (a) is a Carnot heat engine and Case (b) is a Carnot heat pump. Adapted from Levenspiel (1996).