



**ABSTRACT****INTERCOOLER FOR VEHICULAR ENGINE**

5 The present invention discloses an intercooler (100) connected to an air conditioning cycle of a vehicle comprising a heat exchanger (101) having an array of fins (102) with a plurality of tubes fabricated across the fins (102), an inlet connecting the tubes (103) to an evaporator (109) of the cycle for receiving a refrigerant flow from the evaporator (109), a first outlet (104) connecting the tubes to a compressor (107) of the  
10 cycle for discharging the refrigerant flow from the heat exchanger (101) back into the cycle through the compressor (107), and an opening (112) for ambient air to flow into the heat exchanger and past the fins (102); and a chamber (105) coupled to the heat exchanger (101) having a second outlet (106) connected to an engine (110) of the vehicle; wherein the refrigerant flow passes through the tubes to remove heat from the  
15 ambient air for forming a cold air flow to be continuously transferred to the engine (110) through the second outlet (106) of the chamber (105).

20 *(The Most Illustrative Drawing: Figure 1)*