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(54) Title: ENGINE COOLING SYSTEM

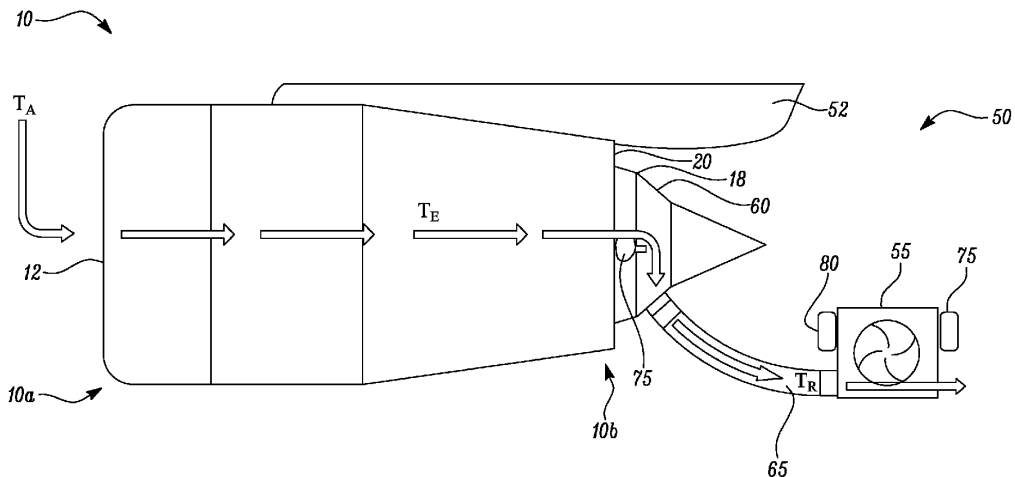


FIG. 2

(57) Abstract: An engine cooling system (50) for cooling gas paths in an engine core (11) of a gas turbine engine (10) of a stationary aircraft, the gas turbine engine having a core exhaust nozzle (20). The engine cooling system (50) comprises: an air pump (55); a core exhaust nozzle engaging collar (60) configured to detachably seal over the core exhaust nozzle (20) of the gas turbine engine (10); an air pipe (65) that connects the core exhaust nozzle engaging collar (60) to the air pump (55); and a first temperature sensor (70) configured to measure an ambient air temperature (TA); a second temperature sensor (75) that is located in or adjacent the core exhaust nozzle (20) and configured to measure an engine core exiting temperature (TR); and a controller (80) configured: (a) to calculate an engine core temperature (TE) from the engine core exiting temperature (TR) and the ambient air temperature (TA); and (b) to activate the air pump (55) to draw air through the engine core (11) to cool the gas paths within the engine core until the engine core temperature

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(TE) equals a predetermined engine target temperature (TT).