POST-SHUTDOWN ENGINE HEAT REMOVAL SYSTEM

ABSTRACT

Systems and methods for removing heat are provided. For example, a system comprises a support apparatus and a cooling apparatus, including a suction device for forcing air through a gas turbine engine, disposed on the support apparatus, which is moveable with respect to the engine to position the cooling apparatus in contact with an engine exhaust. A nozzle in operative communication with the suction device may force air through the engine. Further, the support apparatus may comprise a lift device, an angle adjustment mechanism, and a nozzle support element disposed on a longitudinal slide rail for adjusting a height, an angle, and a longitudinal position of the nozzle. A method of removing heat from a gas turbine engine after shutdown comprises positioning a cooling apparatus adjacent an exhaust; sealing the cooling apparatus to the exhaust; and operating a suction device of the cooling apparatus to move air through the engine.

[Fig. 3]