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[Continued on next page]

(54) Title: UTILIZATION OF PROCESS HEAT BY-PRODUCT

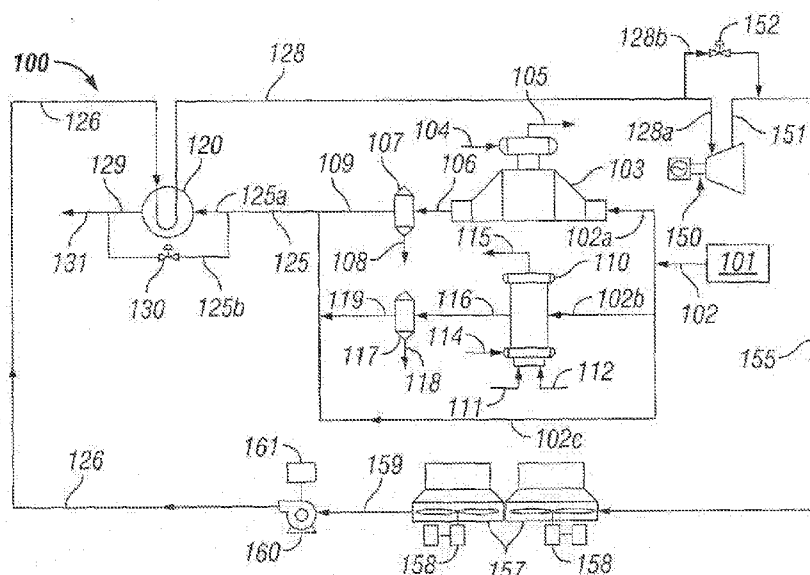


FIG. 1

(57) Abstract: Heat recovery systems and methods for producing electrical and/or mechanical power from a process heat by-product are provided. Sources of process heat by-product include hot flue gas streams, high temperature reactors, steam generators, gas turbines, diesel generators, and process columns. Heat recovery systems and methods include a process heat by-product stream for indirectly heating a working fluid of an organic Rankine cycle. The organic Rankine cycle includes a heat exchanger, a turbine-generator system for producing power, a condenser heat exchanger, and a pump for recirculating the working fluid to the heat exchanger.



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