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Yamashita et al.

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(54) **BINARY POWER GENERATION SYSTEM**

F24J 3/08; F24J 3/085; F01K 13/00; F01K 23/04

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See application file for complete search history.

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(57) **ABSTRACT**

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A binary power generation system includes: a first pressure
reducing steam-liquid separator which reduces the pressure
of geothermal heat source water to separate the geothermal
heat source water into water steam and hot liquid water; a
steam turbine which is driven by geothermal water steam; a
medium turbine which is driven by medium vapor obtained
by evaporating a medium liquid with the geothermal heat
source water as a heat source; a condenser/evaporator which
is configured to transfer the heat of the water steam dis-
charged from the steam turbine to the medium liquid so that
the water steam is condensed and the medium liquid is evapo-
rated; and a gas cooler which leads a working medium dis-
charged from the medium turbine to thereby cool condensed
water obtained by the condenser/evaporator and separate and
discharge noncondensable gas contained in the condensed
water.

(51) **Int. Cl.**

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(52) **U.S. Cl.**

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8 Claims, 4 Drawing Sheets

