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(54) Title: STEAM ASSISTED AIR SUPPLY SYSTEM FOR A HULL OF A VESSEL AND A VESSEL COMPRISING THE AIR SUPPLY SYSTEM

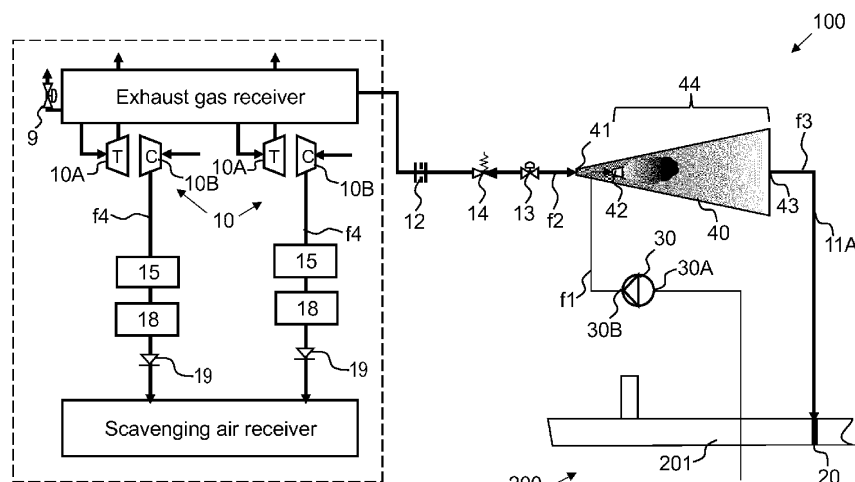


Fig. 1

(57) Abstract: Disclosed is an air supply system for supplying air to an outside of a hull of a vessel holding a combustion engine. The air supply system comprises one or more air discharge units, ADUs, for releasing compressed air to an outside of the hull below a waterline of the vessel. The air supply system comprises a pump for generating a first flow of sea water. The air supply system comprises an injector comprising a first inlet for receiving the first flow of sea water from the pump, a second inlet for receiving a second flow of gas from the combustion engine, an outlet for discharging a third flow of gas to the ARUs, and an expansion portion arranged downstream of the first inlet and the second inlet and upstream of the outlet. The injector is configured to mix the first flow of sea water and the second flow of gas into the third flow of gas and the expansion portion is configured to expand the third flow of gas to increase the pressure of the third flow of gas discharged from the injector through the outlet. The air supply system is configured

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to evaporate the first flow of sea water using thermal energy from the combustion engine so that the third flow of gas is enriched with steam from the first flow of sea water.