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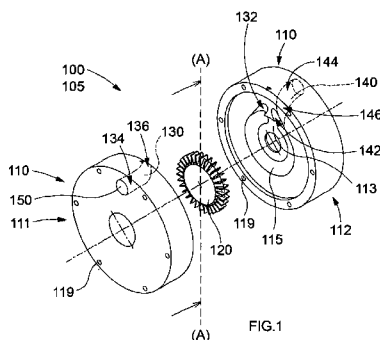
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(54) Title: IMPROVED PUMP



(57) Abstract: A regenerative pump (100) comprises at least one pump unit (105), the at least one pump unit comprising a casing or housing (110) comprising a fluid passage channel (115); and at least one impeller (120) provided inside the casing or housing for pumping the fluid through the fluid passage channel, wherein the casing or housing comprises at least one inlet channel (130) and at least one outlet channel (140) in communication with the fluid passage channel, the at least one inlet channel and/or the at least one outlet channel each comprising a first or axial portion (134) at least partially and preferably substantially parallel to an axis of rotation of the at least one impeller. The pump can be arranged in a single stage or multistage configuration, and has improved weight/size ratio and performance characteristics. The invention is particularly useful in Electrical Submersible Pumps (ESPs), in oil pumps for, e.g. gas turbine engines or turbine gearboxes, in fuel pumps for, e.g. automotive vehicles, in industrial process applications, e.g. in pharmaceutical or petrochemical process manufacturing, and/or in water pumps, e.g. in mobile fire engines (also known as water tenders).