

Title (en)

AXIAL THRUST COMPENSATION FOR CENTRIFUGAL PUMPS.

Title (de)

AXIALSCHUBAUSGLEICH FÜR KREISELPUMPEN.

Title (fr)

COMPENSATION DE LA POUSSEE AXIALE DANS DES POMPES CENTRIFUGES.

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Application

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Abstract (en)

[origin: WO9203662A1] The invention concerns a device for fully compensating the axial thrust in centrifugal pumps with a first device which brings about a hydraulic compensation of the axial thrust with the aid of a pressure difference generated by the impeller of the centrifugal pump and a second device which takes up the remaining axial thrust when the pressure head is inadequate for the operation of the first device. In order also to overcome the overload region which can be a problem in axial thrust compensation without using an additional back-up bearing, the invention provides for a second compensating device, also hydraulic, which brings about an increase in pressure in the pressure side of the lateral impeller space when the pressure head falls below a predetermined value, by which this device assumes the compensation of the axial thrust at a time when axial thrust compensation dependent on the pressure differences between the impeller intake and discharge can no longer act satisfactory.

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