

The turbomachine of the invention extends longitudinally along an axis (4), and includes a rotor (2) attached to drive shaft (5), arranged to rotate around an axis, supported by at least a first bearing (6), mounted on the fixed structure of the turbomachine by a bearing support element (11). The turbomachine is characterised by the fact that it includes a stop ring (30), mounted on the fixed structure of the turbomachine, to cooperate with the support element (11) of the first bearing and, in the event of displacement of the rotor (2) in relation to the fixed structure, to perform a function of axial retention of the rotor (2) in an even manner, with no angle effect between the axis of the turbomachine and the axis (4) of the drive shaft (5).