

TORQUE TUBE BEARING ASSEMBLY

ABSTRACT

A bearing assembly (80) for use in a gas turbine engine (28) to rotatably mount a torque tube (50) in an access hole (24) extending through a fan duct (26). The torque tube (50) connects a variable stator vane bell crank (30) positioned inside the fan duct (26) to an actuator (32) positioned outside the fan duct (26). The bearing assembly (80) includes a bearing (60) having a spherical external engagement surface (62) and a housing (70) having a flange (82) and an annular interior surface (72) having an inner edge (74) and an outer edge (76). The interior surface (72) is sized and shaped for rotatably receiving the spherical external engagement surface (62) of the bearing (60) so the spherical engagement surface (62) and the annular interior surface (72) make contact along an annular contact area (100) centered on a contact plane (102) lying between the inner and outer edges (76). The contact plane (102) is tilted with respect to the flange (82) at an angle (104) greater than five degrees.

Fig. 2