BEARING WITH PARTICLE TRAP

ABSTRACT

A hydrodynamic bearing journaling a shaft includes a rotatable bushing journaling the shaft and thrust plates on the shaft at opposite ends of the bushing. The bushing is encased in a cylindrical sleeve. Lubricant containing clearance spaces are formed between the shaft, bushing, sleeve, and thrust plates. An internal radial chamber in the sleeve between the bushing and sleeve stores lubricant and collects foreign particles. Radial ports through the bushing provide for flow of lubricant between the journal bearing and the shaft and thrust plates.

FIGURE 3