

Title (en)
Drive positioning mechanism with backlash adjustment for variable pipe diffuser

Title (de)
Positionierantriebsvorrichtung mit Spieleinstellung für variablen rohrförmigen Diffusor

Title (fr)
Mécanisme de positionnement avec réglage de jeu pour diffuseur tubulaire variable

Publication
EP 0896157 A1 19990210 (EN)

Application
EP 98630040 A 19980731

Priority
• US 90731997 A 19970806
• US 90728897 A 19970806

Abstract (en)
A drive positioning mechanism (121) with backlash adjustment for use in a variable pipe diffuser for a centrifugal compressor (10). A rotational drive means is fixedly attached to the housing of a centrifugal compressor with a pinion gear (124) mounted thereto. A rack gear (123) is mounted to the inner ring (40) and adapted to engage in meshing arrangement with the pinion gear (124). The rotational drive means is operable to position the inner ring (40) between a fully open position and a partially closed position. A travel limiter is provided to positively limited the travel of the inner ring at the fully open and the partially closed positions. The backlash adjustment mechanism is comprised of a housing (130) having a cylindrical body positioned concentrically about a first centerline and having a bore disposed axially through the body positioned about a second centerline. The drive shaft (126) is rotatably disposed concentric with the second centerline within the bore. The inner ring (40) is positioned such that it meshes with the pinion gear (124). The housing (130) is disposed within the casing and is rotatably operable to effect an adjustment of the backlash between the pinion gear (124) and the rack gear (123). <IMAGE>

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IPC 8 full level
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Citation (applicant)
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