

SURGICAL INSTRUMENT INCORPORATING A FLUID TRANSFER CONTROLLED ARTICULATION MECHANISM

Abstract of the Invention

A surgical instrument particularly suited to endoscopic use articulates an end effector by including a fluid transfer articulation mechanism that is proximally controlled. A fluid control, which is attached to a proximal portion, transfers fluid through the elongate shaft through a first fluid passage to a first fluid actuator that responds by articulating an articulation joint. Two opposing fluid actuators may respond to differential fluid transfer to effect articulation. Thereby, design flexibility is achieved by avoiding the design constraints of transferring a mechanical motion through the tight confines of the elongate shaft sufficient to effect articulation.

Fig. 1