

MOLD CLAMPING APPARATUS

ABSTRACT OF THE DISCLOSURE

A mold clamping apparatus in which hydraulic oil forcibly discharged into hydraulic lines from one of a differential mold clamping cylinder and a mold clamping oil chamber of a mold opening/closing cylinder is, in an alternating manner, provided to the other cylinder as its operating oil, thereby enabling simultaneous operation of the two kinds of cylinders as well as reduction in operating time in which mold is opened or closed. The mold clamping apparatus includes a stationary mold, a movable mold which closes with respect to the stationary mold, a core movable into/out of the stationary mold. The movement of the core is effected by a differential mold clamping cylinder which is separate from a mold opening/closing cylinder for the movable mold. A hydraulic line on the mold opening side of the mold opening/closing cylinder and a hydraulic line for the differential mold clamping cylinder are interconnected to one another via a communication passage with a pressure/flow control valve disposed thereon. While the movable mold is opened/closed and the core is moved into/out of the stationary mold, a volume of hydraulic oil discharged into these hydraulic lines is alternately provided to the mold opening oil chamber or to the differential mold clamping cylinder.