

ABSTRACT

The present invention discloses a two-way circulating pump, comprising an upper seat, a middle seat, a lower seat, a first main wheel, a first accessory wheel, a second main wheel and a second accessory wheel, wherein, the first main wheel and the first accessory wheel are meshed with each other and are mounted within a first chamber, which is constituted by the upper seat and the middle seat and is provided with a first oil inlet and a first oil outlet, through rotating shafts respectively, the second main wheel and the second accessory wheel are meshed with each other and are mounted within a chamber, which is constituted by the middle seat and the lower seat and is provided with a second oil inlet and a second oil outlet, through rotating shafts respectively, the rotating shaft of the first main wheel is provided with a recess, and the rotating shaft of the second main wheel is provided with a protrusion that is socketed within the recess, the first main wheel is drivingly connected to a motor. In addition, the present invention also provides an engine oil purification system including the above described two-way circulating system. The two-way circulating pump and the engine oil purification system integrate two pumps into a single one and thus can decrease not only equipment cost but also energy consumption.

Figure 2