SPARGING LUBRICATION MECHANISM COMPRISING A DRIVE GEAR

The present invention relates to the field of sparging-lubricated mechanisms, comprising a drive gear or transmission gearing that possesses two toothed gear wheels intermeshing with one another for the driving of one toothed gear wheel (“driven” gear wheel) by the other ("drive" gear wheel).

In order to minimise the wear on gearing, it is necessary to lubricate the gearing. In particular it is possible to immerse the gearing at least partially in a lubricant bath. This is referred to as sparging lubrication.

Embodiments of the invention seek to improve lubrication by sparging in a mechanism comprising a drive or transmission gearing.

According to an aspect of the present invention, there is provided a sparging-lubricated mechanism, comprising a housing and a drive or transmission gearing disposed within the housing, the gearing possessing two toothed gear wheels provided with respective toothings intermeshing within a meshing zone, each toothing having a first lateral surface and a second lateral surface opposite thereto, the mechanism further also comprising a channel member disposed to be facing the first lateral surfaces to the right of the meshing zone in order to channel the lubricant expelled from the meshing zone from the first lateral surfaces.

The sparging lubricated mechanism includes on an optional basis, one or more of the following characteristic features, taken into consideration in isolation or in accordance with all technically possible combinations:

- the channel member delimits a channel;

- the channel member cooperates in a sealing manner with a sealing surface provided on at least one toothed gear wheel;

- the channel member cooperates in a sealing manner with a sealing surface of each toothed gear wheel;

- at least one toothed gear wheel possesses a sealing surface that is perpendicular to the axis of rotation of this toothed gear wheel;

- at least one toothed gear wheel possesses a sealing surface of revolution about the axis of rotation of the toothed gear wheel and having an extension along the said axis of rotation;

- at least one toothed gear wheel possesses a cylindrical sealing surface that is centered on the axis of rotation of the toothed gear wheel;

- the channel member is configured so as to scrape a sealing surface of a toothed gear wheel;