Abstract

OIL REFINING PROCESS

A process for heating used lubricating oil (ULO) to dehydrate and/or recover distillable components therefrom, is disclosed. The ULO feed is heated by direct contact heat exchange with a non-pyrolyzing molten fluid, molten metal, or molten salt, preferably maintained as a continuous phase bath, operating at a temperature above the boiling point of water and below 600°C. The ULO feed is heated and at least partially vaporized in, or above, or by contact with the molten fluid. Lubricant boiling range hydrocarbons are recovered as a vapor product. The additive package in the ULO, or decomposition products thereof, are recovered as a liquid phase.

Figure 1