
输油泵节能技术

摘要

我国的节能技术还存在一定的问题，节能技术在石油管道中可以节约资源，给我国的石油管道带来重要意义。举例了以下几种输油管道的节能技术。

本文通过对国内国外节能技术的了解。说明了节能技术对管道的重要性。首先研究了输油泵的节能技术，包括调节离心泵的转速、采用高效泵、和输油泵的节能运行。其次研究了加热炉的节能技术，包括加热炉的热损失、加热炉节能方法和加热炉运行控制节能。然后在输油生产工艺中阐述了从“泵到泵”的输油工艺、先炉后泵的输油工艺、原油添加降凝剂输送工艺。在铁秦管线中采用先炉后泵工艺，在铁岭至大连管线中采用从泵到泵输油工艺，在鲁宁管道中采用了降凝剂。最后一章研究了了输油管网的优化运行。从输油泵机组的优化组合、输油站运行方案的优化、和输油管网的优化运行技术三方面研究。

关键词：输油管道；泵；加热炉；输油工艺；节能

Abstract

China's energy saving technology still has some problems, energy saving technology in the oil pipeline can save resources, bring important significance to China's oil pipeline. Examples are given of the energy saving technologies of the following oil pipelines.

This paper through the understanding of domestic and foreign energy-saving technology. It illustrates the importance of energy-saving technology to pipelines. Firstly, the energy saving technology of oil pump is studied, including adjusting the speed of centrifugal pump, using high efficiency pump, and energy saving operation of oil pump. Secondly, energy saving technology of heating furnace is studied, including heat loss of heating furnace, energy saving method of heating furnace and energy saving of operation control of heating furnace. Then, in the process of oil production, the process from "pump to pump", the process from furnace to pump, and the process of crude oil adding coagulant are described. Furnace before pump process was used in tieqin pipeline, pump to pump oil process was used in tieling to dalian pipeline, and condensing agent was used in luning pipeline. In the last chapter, the optimal operation of pipeline network is studied. From the optimal combination of the oil pump unit, the optimal operation scheme of the oil station, and the optimal operation technology of the oil pipeline network.

Key words: oil pipeline; Pump; The heating furnace. Oil transfer process; Energy saving

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