

ANALYSIS OF PISTON SEALS EFFICIENCY IN SILENT PUMP UNITS USING ANALYSIS OF DEFORMED STATE OF COMPRESSION CHAMBER CYLINDRICAL PART

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The article discusses the application of various types of seals in piston pump with low-speed long-stroke units. The calculated values of the deformations of the cylindrical part of the working chamber and the current value of the actual clearances for various cylinder-piston seals are determined. Based on the established restrictions on the minimum value of the feed coefficient, an analysis is made of the working process of the pump piston stage of a long-stroke unit and recommendations are developed on the use of the considered types of seals.

Keywords: low-speed long-stroke stage, piston pump unit, piston unit balancing, cylinder deformation, clearance.

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