

Special rod-drop monitoring technique developed in close cooperation between the machine manufacturer, instrument supplier and end-user gives results

Authors: Mike Hastings, Brüel & Kjær Vibro, Denmark
Jos Schrijver, Thomassen Compressor Systems, The Netherlands

Rod-drop measurements for determining rider band wear on reciprocating compressors is one of the important condition monitoring techniques for these maintenance-intensive machines. Traditionally, however, it has been difficult to get a proper rider band wear trend within a reasonable short time if there are slight variations in the operating conditions of the compressor, thus leading to opening the machine either too early or too late for replacing these bands.

A triggered two-measurement per rotation technique has been developed and used that is not so sensitive to slight speed and loading variations, and gives a better trend within a shorter period of time compared to the traditional rod-drop measurement. This technique is part of a condition monitoring “packaged solution” that is offered, installed and refined through a cooperation between a machine manufacturer, Thomassen Compressor Systems, an instrument supplier, Brüel & Kjær Vibro, and a select group of end-users. And this has already given positive results, as described in this paper.