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# NASA TECH BRIEF



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## Prediction of Faults in Components of Machinery in Motion

A vibration-analysis system has been designed to detect incipient malfunction or failure of components of functioning hydraulic systems; it is easily applicable to all types of operating machinery. The mechanical vibrations of individual moving components are sensed with piezoelectric accelerometers and measured electronically from outside the working machine. The data yielded are either analyzed directly or stored on tape and subsequently processed and analyzed for indication of defective components that would lead to ultimate failure unless corrective action were taken.

### Note:

The following documentation may be obtained from:

Clearinghouse for Federal Scientific  
and Technical Information  
Springfield, Virginia 22151  
Single document price \$3.00  
(or microfiche \$0.65)

Reference: NASA-CR-99189 Study for  
Maintenance of Hydraulic Motors

### Patent status:

No patent action is contemplated by NASA.

Source: R. B. Tatge of  
General Electric Company, Inc.  
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