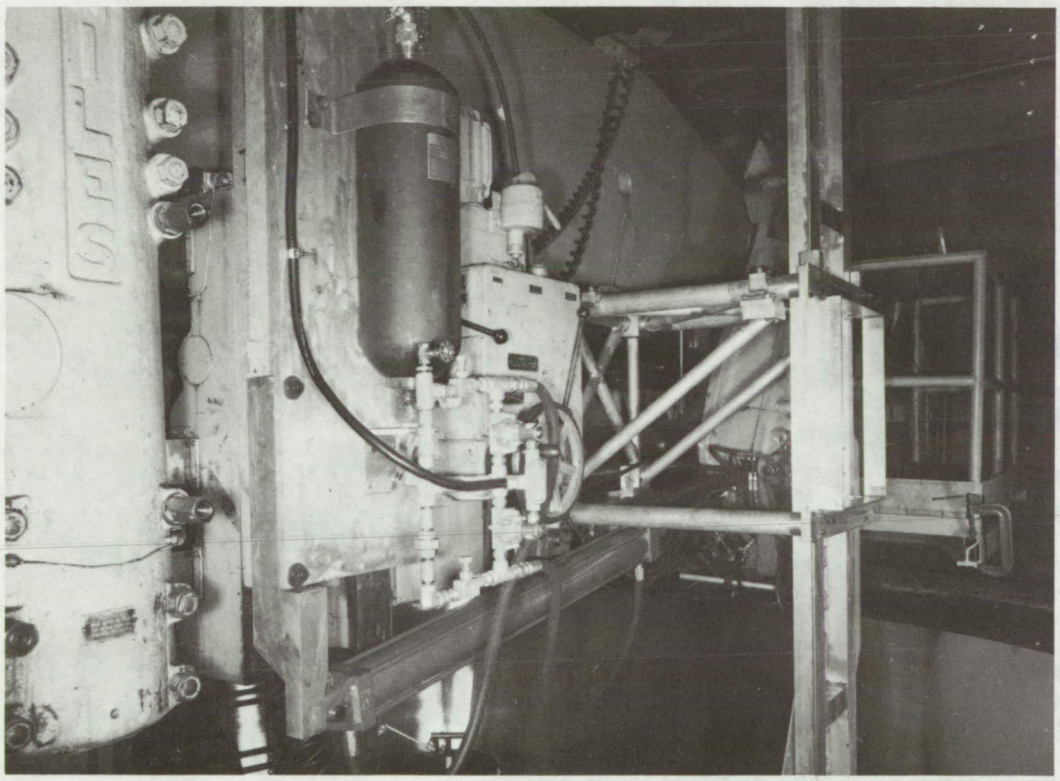
September 1969

Brief 69-10348

NASA TECH BRIEF

Vibration Dampener for Niles Vertical Boring Mill Ram



The problem:

During machine cutting operations on a Niles boring mill, excessive vibration is placed on the cutting tool bit that is supported on the ram eight feet from the bearings and gears. This vibration accelerates wear and results in an inferior cutting operation.

The solution:

Maintain a constant pressure on the ram while it is feeding the tool bit into the work being machined.

How it's done:

A controlled hydraulic cylinder, which serves as a vibration dampener, is used as a ram support

(continued overleaf)

unit. The shock-absorbing cylinder preloads the ram diagonally and with the constant pressure exerted, the cutting tool vibration is minimized.

Note:

No further documentation is available. Inquiries may be directed to:

Technology Utilization Officer
Manned Spacecraft Center
Houston, Texas 77058
Reference: B69-10348

Patent status:

No patent action is contemplated by NASA.

Source: Raymond J. Young of
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Space Division
under contract to
Manned Spacecraft Center
(MSC-15529)