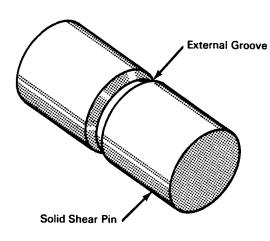
March 1966 Brief 66-10077

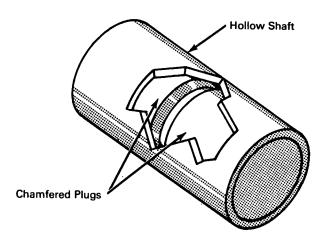
NASA TECH BRIEF



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Plugged Hollow Shaft Makes Fatigue-Resistant Shear Pin





The problem:

Past experience has shown that shear pin couplings of the external groove type are subject to failure due to fatigue rather than overloading.

The solution:

A shear pin coupling design that employs the external groove basic idea in modified form.

How it's done:

A hollow shaft is fitted with two plugs with chamfered ends that meet at the point where shear is to occur on overload.

Notes:

1. This design provides the required load capacity for shaft protection and has no groove to induce fatigue failure.

- Several years satisfactory service indicates that this type shear pin has solved the problem of fatigue failure in this application while furnishing the desired protection against shaft overloading.
- 3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer Langley Research Center Langley Station Hampton, Virginia, 23365 Reference: B66-10077

Patent status:

No patent action is contemplated by NASA.

Source: T.W.E. Hankinson (Langley 195) Category 05

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