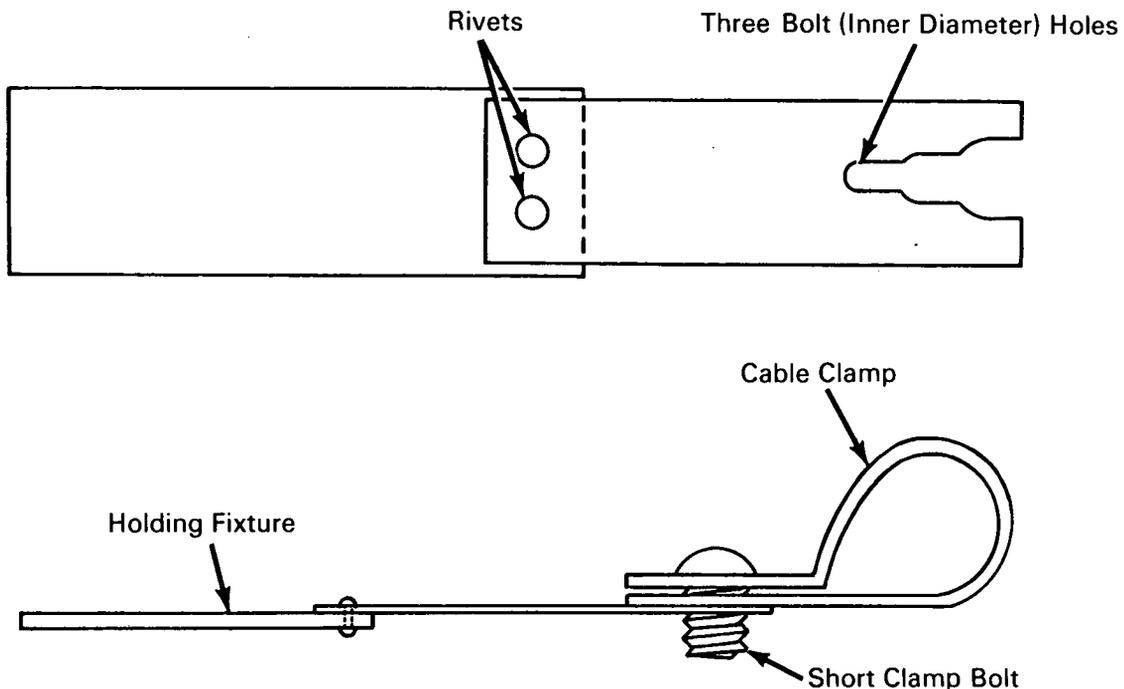


NASA TECH BRIEF



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Cable Clamp Bolt Fixture Facilitates Assembly in Close Quarters



The problem:

In forming electrical cable runs, it often becomes difficult to attach and secure the necessary cable clamps that support and restrain the cables. This is primarily due to the short clamp bolts that must be used to prevent cluttering limited equipment space and to the tension imposed on the clamp closure area by the contained cable. Using only conventional hand tools the operator is exposed to hand injuries and loss of time, and the possibility of equipment damage exists.

The solution:

A cable clamp bolt holding fixture that engages the threads of the bolt through the clamp and maintains tension against clamp tendency to open while the operator installs the nut without difficulty.

How it's done:

The cable clamp is positioned about the cable or cables, is pressed closed and the clamp bolt is inserted into the clamp holes. The open ended portion of the holding fixture is forced over the protruding clamp bolt threads and against the underside (as shown) of

(continued overleaf)

the clamp. Designed for 3 different diameter bolts, the holding fixture engages the bolt threads and holds firmly against the clamp opening tension while the nut is installed. The holding fixture is then withdrawn and the nut is taken up to complete clamp closure.

Notes:

1. In normal applications, the holding fixture would be used to hold the clamp bolt outboard of a panel or other structural member on which a cable run is being installed. The technique and sequence would be the same.
2. Plates or other assembly members could be joined using this type fixture to hold them in place temporarily.

3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Kennedy Space Center
Kennedy Space Center, Florida 32899
Reference: B67-10244

Patent status:

No patent action is contemplated by NASA.

Source: Gary H. Sunderland
of The Boeing Company
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