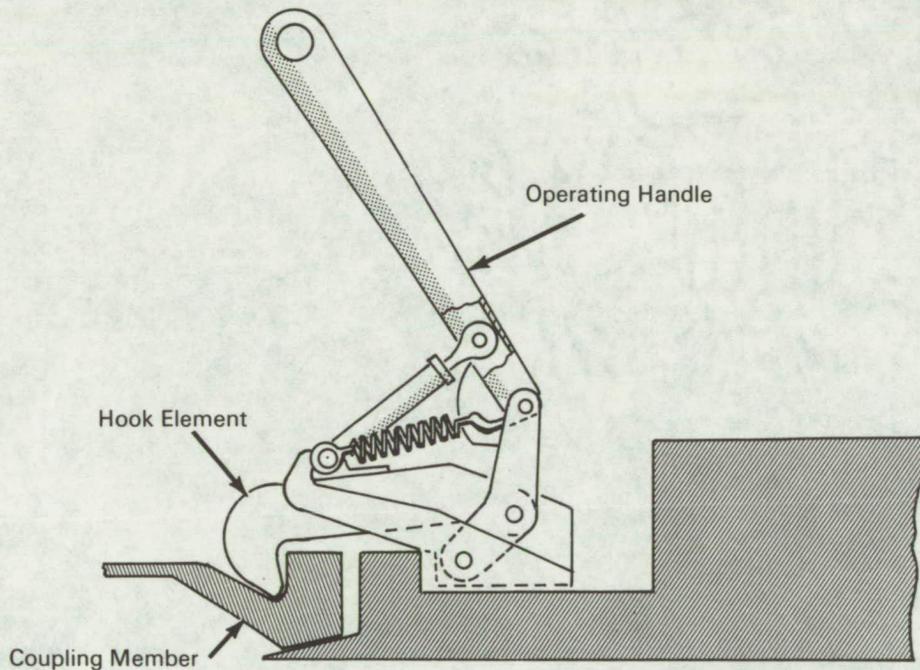


NASA TECH BRIEF



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Latching Mechanism Operates in Limited Access Area



The problem:

To design a reliable latching mechanism that operates in a limited access area.

The solution:

A mechanism that is securely locked by the movement of the operating handle in one direction, and can be operated by a force applied to the handle at small angles.

How it's done:

The latching mechanism is mounted onto one of the members to be coupled. The coupling member is notched to mate with the hook-like latch. When the members are properly aligned, the operating handle

is moved to the closed position in a single movement. The hook element pivots into the notch provided and locking is achieved. To release, the operating handle is moved in the opposite direction and the hook element pivots up and back, out of the notch.

The latching mechanism can be operated remotely and produces high clamping forces in response to reasonable handle loads so that it can be operated manually. It occupies only a small volume after latching and may be operated without special tools. Since the access area for any remote control means is limited, the latching mechanism is locked by a single movement in one direction and fully disengaged by a

(continued overleaf)

single movement in the opposite direction. The force applied to the operating handle is directed at angles substantially less than 90° with respect to the longitudinal axis of the base of the mechanism.

Note:

Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Manned Spacecraft Center
Houston, Texas 77058
Reference: B66-10338

Patent status:

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under contract to
Manned Spacecraft Center
(MSC-230)