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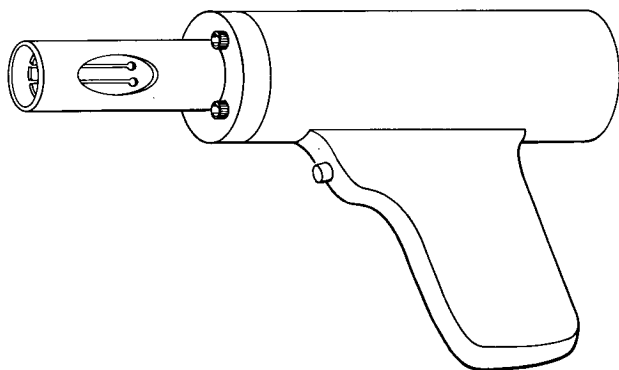
Brief 70-10044

NASA TECH BRIEF



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Modified Faceplate Assembly for Stud-Welding Gun



A ventilated barrel assembly 1 inch in diameter was developed to replace the present faceplate on percussion stud welding guns. This innovation enables studs to be installed on areas that have either short-edge distance or distorted surfaces without additional tooling.

Standard faceplate assemblies did not provide a means for making acceptable stud wells on the weld land of a specific bulkhead meridian weld. The weld land was too narrow (1 inch) and it had an uneven surface due to weld peaking. The modified faceplate assembly (see figure) is smaller and makes possible completely satisfactory welding of studs to the narrow, uneven weld land. The principal difference between the two faceplates is that the modified one

permits proper aligning and positioning of the percussion stud welding gun on a much smaller surface area than the standard one.

Other features of this innovation that make it superior to available standard assemblies include: (1) the gap setting can be set and maintained without any other adjustment; (2) the stud-welding gun can be used in any position; and (3) verification samples can be made on a 1-inch square instead of a 3-inch square.

Notes:

1. This innovation may be of interest to manufacturers who use percussion studs.
2. No additional documentation is available. Specific questions, however, may be directed to:
Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B70-10044

Patent status:

No patent action is contemplated by NASA.

Source: Robert E. Johnson of
North American Rockwell Corp:
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