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NASA TECH BRIEF

Marshall Space Flight Center



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Pictorial Display of Materials and Processes Aids in Fabricating Complex Assemblies

An improved method for determining the materials and processes needed to fabricate an assembly consists of a single pictorial display showing a cutaway view of the assembly, the subassemblies identified by name, and the materials and processes identified by both specification and commercial designation. Previously, gathering the necessary information required the review of several different documents, such as engineering drawings, process specifications, material specifications, and a qualified source list.

In the pictorial display shown in the figure, lines connect the subassemblies on the cutaway view to the subassembly nomenclature listing, and continue to various points on the fabrication information chart. By following the lines, it is possible to determine the fabrication requirements for each subassembly.

The assembly fabrication display can be used in engineering, manufacturing, and personnel training as an aid in defining and understanding fabrication processes.

Notes:

1. Designation of commercial company products is only indicative, not inclusive, and is not a recommendation of one company over another.
2. Requests for further information may be directed to:

Technology Utilization Officer
Code A&TS-TU
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B71-10341

Patent status:

No patent action is contemplated by NASA.

Source: G. J. Fawkes and R. M. Ehret of
North American Rockwell Corp.
under contract to
Marshall Space Flight Center
(MFS-24006)

(continued overleaf)

Process Specifications

Material Specifications

Number	Type	Purpose
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Number	Commercial Designation
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- MA0160-045 - App Primer
- MA0605-009 - Fab Shape Charge Fairing
- MA0605-014 - Fab Polyurethane Laminate
- MA0606-013 - Bonding Common Bulkhead
- MA0606-027 - Bonding Foam Filled-Hard Spots
- MA0606-050 - App Spray Foam
- MA0608-015 - App Ext. Aft Skirt & Inner Stage

- MB0120-008 Epon 934
- MB0120-014 HT-424 Foam Tape
- MB0120-023 Lefkowied-109
- MB0120-024 Narmco 7343
- MB0120-026 Thixotropic Paste
- MB0120-032 M602 Primer
- MB0120-034 Lefkowied-211
- MB0120-042 Primer "M"
- MB0120-047 Epoxy/Phen Primer
- MB0120-048 HT424 Adhesive
- MB0125-006 Epoxy Paint
- MB0125-036 Func/Res Paint
- MB0125-038 SS4004 Primer
- MB0125-045 Chem Seal
- MB0125-046 Dynatherm-V-455
- MB0130-004 Phen Glass Prepreg
- MB0130-014 HRT Core
- MB0130-019 RTV-3 Types
- MB0130-046 Pour Foam
- MB0130-020 Cork
- MB0130-077 Spray Foam-2 LB
- MB0135-008 Glass Scrim Cloth
- MB0135-009 Glass Fabric
- MB0135-021 Nylon Fabric
- MIL-A-24179 Contact Adhesive
- NONE Glass Balloons

