GRAY*STAR, Inc.
TEST REQUIREMENT SPECIFICATION

TRS-023

Part: GS-42 Inner Source Tube Assembly . Part No. 407 & 408	Inspection and Rework procedure for Inner Source Tube Assembly End Caps

Approved:
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PURPOSE

This procedure provides a means of inspecting the threads of the Part No. 415 Inner Fill End, End Cap of the Inner Source Tube Assembly for distortion of the features that affect seal plug installation. It also provides a method for restoring the threads and conical sealing surface resulting from potential distortion due to welding.

DRAWINGS

AAI-407, Sheet 1, Source Tube, Inner, Long, Assembly of
AAI-407, Sheet 2, Source Tube, Inner, Long, Assembly of
AAI-408, Sheet 1, Source Tube, Inner, Short, Assembly of
AAI-408, Sheet 2, Source Tube, Inner, Short, Assembly of
AAI-415, Sheet 1, End Cap, Inner Source Tube, Fill End

PROCEDURE

1.0 General Examination

1.1 Examination of the Threads

Check the threads in the fill port using "Go" and a "No-Go" thread gages for the .750-16 UNF-1B threads. If the "Go" thread gage does not freely engage in the threads, the Inner Source Tube Assembly will be subject to re-work in accordance with Paragraph 2.0 of this procedure. If the "No-Go" gage freely engages in the threads, the Inner Source Tube Assembly is unacceptable.

1.2 Examination of the conical sealing surface

A visual inspection of the conical sealing surface of the Inner Source Tube Assembly is to be performed with the use of a flashlight to reveal any scratches, blisters, or other discontinuities in the conical surface that might affect the sealing of the Inner Source Tube Assembly. If there are any discontinuities observed, or if the threads must be chased, rework of the sealing surface shall be performed in accordance with Section 3.0 of this procedure.

2.0 Rework of Thread

The Source Tube Assembly must be positioned with the fill end down to prevent debris from entering the interior of the Source Tube Assemblies. The threads are to be chased with a .750-16 UNF-1B tap. The initial threads near the mouth of the fill opening can be re-threaded by hand using a tap with a standard lead-in. Due to clearance restrictions between the threads and the conical sealing surface, threads near the throat of the fill opening are to be chased with a bottoming tap. ***The use of organic materials of any kind in this process, including cutting oils, is prohibited***! The threads and conical sealing surfaces of both the Inner and Outer Source Tube Assemblies are to be cleaned of any loose material produced during the re-threading operation.

3.0 Rework of Conical Sealing Surface

Secure the Outer Source Tube Assembly in a vise or suitable machining fixture. Align the cutting tool precisely relative to the minor diameter of the threaded hole of the Inner Source Tube Assembly prior to performing the resurfacing operation. A minimum amount of material shall be removed during the resurfacing consistent with producing a uniform conical sealing surface. ***The use of organic materials of any kind in this process, including cutting oils, is prohibited***! Care should be taken to prevent any machining debris from entering the interior of the Inner and Outer Source Tube Assemblies. After the resurfacing is complete, the inner and outer conical seal surfaces are to be cleaned of all loose chips and debris. Re-inspect the surface finish of the sealing surface to the requirements of drawing No. AAI-415.

REVISIONS

Rev	Date	Comments
00	1-29-99	Original Release