

UNAPPROVED PARTS NOTIFICATION

Aircraft Certification Service



FAA
Aviation Safety

No.: 2009-20080716034

Date: June 22, 2009

<http://www.faa.gov/aircraft/safety/programs/sups/upn>

AFFECTED PRODUCTS:

Stainless steel/special nickel alloy tubes for critical and non-critical use on aircraft and aerospace products, produced by Plymouth Tubing Company, from May 2000 to May 2008, at their 2000 Industrial Parkway, Salisbury, MD 21801, facility.

The following stainless/nickel alloy tube material(s): AMS, MIL-T/-304,-321,-347,-600,-625 and tubes with outside diameter measuring .125"-1.0", may not have been adequately processed and tested. Consequently, it can affect the service life on critical and non-critical products and parts used on U.S. certificated aircraft.

PURPOSE:

This notification is to advise all aircraft owners, operators, manufacturers, maintenance organizations, parts suppliers and distributors regarding the use of stainless steel/nickel alloy tubing, manufactured by Plymouth Tube Company, 2000 Industrial Parkway, Salisbury, MD 21801 were not tested as represented. Records reviewed at Plymouth Tube Company, during a Federal Aviation Administration (FAA) suspected unapproved part investigation (SUP) do not positively confirm that all testing, as stated by Plymouth Tube Company's Certificate of Compliances, had been satisfactorily accomplished from May 2000 to May 2008.

BACKGROUND:

Information received during an FAA SUP investigation revealed that between May 2000 and May 2008, Plymouth Tube Company, 2000 Industrial Parkway, Salisbury, MD 21801, produced and sold stainless steel/special nickel alloy tubing that was not properly tested in accordance with process specifications. While the majority of this product was sold to distributors, other independent aerospace manufacturing facilities are also affected, including overseas manufacturers.

Materials stated below have been used in both critical and or non-critical applications within U.S. aircraft and aerospace industry as well as abroad. Plymouth Tube Company has identified, by their letter of November 4, 2008, stated that "The following specifications are believed to be affected....the tests that were omitted or not performed correctly."

Mil-T-6845/AMS-T-6845, 304 SS hard
3.2-Flarability
3.3-Bending
3.4-Corrosion Resistance, 304L only
3.6-Hydrostatic Pressure

AMS5560, 304 SS solution heat treat
3.4.2-Flarability

Mil-T-8504, 304 SS annealed

AMS5566, 304 SS cold draw

3.3.1-Flarability	3.4.2-Flarability
3.3.2-Flattening	3.4.3-Pressure test
3.3.3-Bending	
3.4.1-Resistance to acidified copper-sulfate solution 304L only	
3.6-Hydrostatic Pressure	
Mil-T-8506, 304 SS annealed	AMS5567, 304 SS solution heat treat
3.4-Flarability	3.4.2-Flarability
3.5.1-Resistance to acidified, copper-sulfate solution, 304L only	3.4.3.-Pressure test
Mil-T-8606, 304L, 321, 347 SS annealed	AMS5570, 321 SS solution heat treat
3.4-Flanging	3.4.2-Flarability
3.5-Flarability	3.4.3-Intergranular attack
3.6-Hydrostatic Pressure	
Mil-T-8808, 321, 347 SS	AMS5571, 347 SS solution heat treat
3.1.4-Resistance to corrosion	3.4.2-Flarability
3.5-Flarability	3.4.3-Intergranular attack
3.6-Hydrostatic Pressure	
AMS5556, 347 SS solution heat treated	AMS5580, INCO 600 annealed
3.4.2-Flarability	3.4.2-Flarability
3.4.3-Pressure test	
3.4.4-Intergranular Attack	
AMS5557, 321 SS solution heat treated	AMS5581, INCO 625 annealed
3.4.2-Flarability	3.4.2-Flarability
3.4.3-Pressure test	3.4.3-Pressure test
3.4.4-Intergranular test	

RECOMMENDATIONS:

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, manufacturers, maintenance organizations, part suppliers and distributors are encouraged to inspect their aircraft and/or aircraft parts or materials inventory for the referenced tubes and tube materials. If these tube materials are found in existing inventory, it is recommended that they be quarantined to prevent installation until a determination can be made regarding their eligibility for installation.

Also, the following distributors of Plymouth Tube Company may be contacted:

- TW Metals: 760 Constitution Dr. Exton, PA. Contact, Mr. Ken Perrine, Telephone: 609-395-2660.
- Earle M Jorgensen Company: 1900 Mitchell Blvd. Schaumburg IL. Contact, Mr. Kevin Ryan, 847-301-2348.

- Castle Metals Aerospace, 14400 S. Figueroa, Gardena CA, (also known as AM Castle and Transtar) contact, Mr. Keith Nowack 678-429-8112.
- Future Metals: 10401 State Street, Tamarac FL, contact Mr. John O'Connor: 954-724-1400.

FURTHER INFORMATION:

You can obtain further information concerning this investigation can be obtained from the FAA Manufacturing Inspection District Office (MIDO) given below. In addition to the above recommendations, the FAA would appreciate any information concerning the discovery of the above-referenced tube or tube material from any source, the means used to identify the source, and the actions taken to remove this material from aircraft and or parts inventories.

This notice originated from the FAA ANE-MIDO-44 Office, Capital City Airport, 400 Airport Drive, Building 201, Room 102, New Cumberland, PA 17070. Telephone (717) 782-4425, Ext. 223, Fax (717) 782-2231.