The Life Time of an Aviation Hose

The functional life time of an aviation fueling hose is outlined by the parameters within ATA103 and EI1540. But both of these do not necessarily agree with each other 100%.

EI 1540 specifies under section 7.2.10 notes that hose life is recommended to be 10 to 15 years. It also states that "In the absence of more specific company procedures, it is recommended that the maximum shelf storage life be two years from date of manufacture.

For ATA103 section 2.7.8 it is clearly defined the hose life will be a maximum of 10 years from date of manufacture and the shelf storage life will be a maximum of 2 years before a hose must be put into service.

Which standard you would be required to follow is depending on which standard you are audited to. For anyone who is not audited per ATA103, you may extend your hose life according to EI1540 or your company policy since the parameter in EI1540 is a recommendation only.

Why must a hose be installed with 2 years of date of manufacture? The hose outer cover and inner tube may deteriorate from exposure to ozone and premature drying/hardening of the rubber compounds. We do know one popular hose brand were the hose in the suppliers warehouse had cracked in less than 12 months due to ozone and hardening of the rubber compound. Any hose that does become affected from the ozone and hardening clearly does not meet the ozone requirements as set out in EI1529 6.5.11.

The 10 year hose life whether mandatory or recommended is clearly to ensure old hoses are replaced before any potential failure that could be looming and may not be visually apparent. Very few hoses can claim to last to the 10 year rules which are used in an everyday working environment. It has much to do with the quality of the hose and how it is handled during its life time. Some hoses however are just far superior to others and most often will last up to the 10 year rule and longer under the EI1540 rule. This is very much a fact in Canada.

Having just completed a tour of all the major airports in Canada where they use exclusively the Contitech Low Temp Aeropal aviation hose, they have indicated that they replace the Contitech hoses based on the 10 year rule. The only time they say that a hose is replaced before 10 years is if it has been damaged due to an accident such as a tug or cart running over the hose and damaging it. Other than that, its 10 years. These are the hoses that are used every single day constantly refueling commercial aircraft and not hoses that are pulled from the reels maybe 4-6 times a day.

However, once and awhile there is a hose that makes it into the Canadian fleet from US truck manufacture who puts on a JAC riser hose that is not of the Contitech Aeropal brand as we had seen this first hand on several units. Every one of these hoses was severally cracked on the outer wrap and due to be replaced within a very short life span. The resulting effects from Ozone.

At PEAR Hose, we utilize only Contitech Aeropal fueling hose in our assemblies. The most flexible, lightest, Ozone resistant and longest wearing hose available in the aviation market! Exceeding EI 1529 requirements that others only claim to meet!

Furthermore we offer a 5 year warranty! Because we know it's that good!

Simply the best! Better than all the rest!