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Subject: : Gear Talk

Topic: : Any idea on manufacturer?

Re: Any idea on manufacturer?

Author: : pcray1231

Date: : 2013/10/3 14:59:13

URL:

That's a great article, thanks for posting. Nit picking, but given my profession, I have to:

Quote:

(Titanium) stronger than stainless, virtually inert, and weighing about 35% less, it is a costly and worthy alternative

Stronger in what sense? I mean, there are literally thousands of stainless steels. But if you have 2 identically sized pieces, generally the steel has higher strength. Titanium is indeed lighter, though. So steel generally has a higher strength to volume ratio. Titanium generally a higher strength to weight ratio. Though there are plenty of steels which are so much stronger, they do have a higher strength to weight ratio as well, but these steels generally are "stainless in name only", meaning you'll get some rust. They are hard to form and machine as well. Knife blade alloys, bearing steels, and the like.

Titanium is a worthy competitor, I do agree with that.

Quote:

we chose exotic, high strength "super alloys" like 17-4 PH rather than....

lol. 17-4 is pretty common. It's a specialty steel, but a common one, it's not exotic. Nor is it a super alloy, which is a term with an actual definition which relates specifically to austenitic high temperature alloys. 17-4 is martensitic and decidedly NOT for use in high temperatures. Most super-alloys are Ni or Co based, some have no iron at all. Though there are a couple of iron based alloys which are borderline fits for the definition, such as A286. But these have, at a very minimum, > 20% Ni as well. Typically more.

Sorry for the rant. Nobody cares, I know. An alloy metallurgist just can't let stuff like that pass....