

Dr. Die Cast



Zinc Markets and Tooling Archives

When we explore the most popular uses of zinc you find a variety of applications. One thing you find is that people tend to think of zinc only in relation to their specific application or industry. For example automotive engineers tend to think of zinc primarily as a “decorative casting” such as a hood ornament or trim. Of course there are the decorative/functional components such as automotive inside and outside door handles. Home appliance and home improvement suppliers would readily recognize small appliance housings, door handles and hardware, and plumbing fixtures as zinc die castings. Nearly every automotive inside mirror is supported by one or more zinc die castings.

Less visible, but of great significance, are the mechanical zinc die castings that are buried inside fishing reels and behind walls as junction boxes, small motor housings and conduit fittings.

“A tale about timing”

So how is this article related to part of the above title “Tooling Archives”? If a company has been around more than 10 years they have accumulated an inventory of “obsolete” or “inactive” tooling. So how do most companies deal with them? At the beginning of most contracts there is an agreement (usually buried within the fine print on the back side of a purchase order) under the category of “Customer Owned Tooling”. This should spell out how long the tooling is expected

to remain active and what the supplier is required (or allowed) to do with the tooling when it reaches the end of its product life cycle. The “2015 NADCA Product Specification Standards for Die Castings” addresses some of this in Chapter 8.3.1 - “Die Ownership”.

(As a general practice, tooling that has been dormant for 3 years is presumed to be a “dead job”. However there may be times when there is more life than anticipated by either the customer or the die caster.)

One case in point was a construction related die casting. From its development in 1998 to 2000 the tooling was used for 3 different projects. The die casting plant closed in 2008 and the tooling was scheduled for disposal along with numerous other jobs. The customer pulled the tooling at the last minute and shipped it to a warehouse for safekeeping. One year later it was available and used to produce the castings required for a new project.

A more recent example that didn't turn out so well is still ongoing. During the last economic downturn a lot of customer owned tooling was lost. No one was paying attention to the “service jobs” as they were preoccupied with the current production tooling that was being transferred to one or another surviving die caster. Today, customers are having to build brand new tooling for “low volume” service orders. These orders can range from a few hundred to a few thousand parts to refill the parts and service pipelines. Tooling costs can

range to six figures for what amounts to an otherwise small order. This same type of problem can occur in Defense and Aerospace where volumes can be extremely low and orders sporadic. Both zinc and aluminum producers are affected by this type of event.

A final example involves classic automotive enthusiasts. In 1987, I witnessed a tooling cleanup in which over a million pounds of automotive zinc hardware tooling was disposed of. The tooling had produced everything from hood ornaments, door handles, labels such as the 327 V-8 emblems, Mustang emblems, etc. Fast forward to 2010 and an entrepreneur/automotive enthusiast wanted to produce emblems, headlight bezels and taillights for the classic muscle cars using the original tooling. He was only 20 years late. If he had been around during the clean-up he could have purchased the tooling by the ton.

So what's the lesson? Both suppliers and customers need to take a hard look at how to handle inactive tooling. As we know, the die casting tooling doesn't operate without trim and secondary tooling and in some cases special gaging and inspection equipment. So is there an effective tooling inventory tracking interface that can be accessed by both supplier and customer? Should there be a new business entity created that specializes in “high value”, “low volume” service parts? I would love to hear your feed-back on this topic. Send me an email.



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