

Revision Levels.

Product knowledge is the key to understanding changes in revision levels.

When purchasing parts, it is important to remember that a revision change does not necessarily null and void parts manufactured during prior revision levels. In most cases, parts manufactured to older revisions are still in accordance with the latest revision. This is most common with aerospace/military standard parts (i.e.: MS, NAS, NASM, AN, AS).

There has been an increasing emphasis on the identification of revisions and revision levels for parts due to the requirements of international quality system standards ISO9001 and AS9100. Knowing your product and understanding how the revision changes affects (or does not affect) the product. At the most basic level, this means reading and comparing the new revision specification, to the previous revision specification.

Most of the recent changes to aerospace/military part revision level changes deal with “modernization” of these specifications. This “modernization” of the specifications can consist of a change in the custodian of the specification. For example, the change from MS20470, (Military Specification) to NASM20470 (National Aerospace Standards Committee). Another example of this “modernization” would be a change in the supporting specifications, such as the change from the MIL-R-5674 procurement specification, to the NASM5674 procurement specification. Still another example of this “modernization” would be the replacement of obsolete supporting specifications, such as the change from the QQ-P-35 passivation specification, to the AMS2700 passivation specification.

Over the past 20 years, the Federal Government and the United States Department of Defense have been relinquishing the role of custodian of specifications, and turning the custody of the specifications over to the industrial and technical organizations that have the engineering and scientific knowledge needed to design the specifications. Generally speaking, these types of revision changes do not change the form, fit or function of the parts. The NASM20426 and NASM20470 standards, two of the most common aerospace rivet standards, have specific language in them that allows for the use of rivets manufactured under previous revisions of the standards, and previous custodians of the standards.

Proprietary part revision changes may involve more fundamental changes to the parts. Again, product knowledge is the key to understanding the changes. A change in revision levels on a proprietary part may be due to a changes in the processes involved in manufacturing the part. For example, the proprietary user of a part may have used a cadmium and yellow chromate finish on the part. The proprietary user may now wish to expand the sales of their finished product to the European Union, where the Restriction of Hazardous Substances (RoHS) regulations are in effect. Cadmium and yellow chromate finish is a toxic substance, and is banned under the RoHS regulations. The proprietary user may revise the specification of the drawing and change to a zinc and trivalent chromate finish, to meet the RoHS regulations. The key concept to remember is that this type of revision change does change the form, fit or function of the part. The new revision of the part should not be represented as being the same as the previous revision.

In some cases, a proprietary or aerospace/military standard specification may “grandfather” in the use of lots manufactured under previous revisions until stock is depleted, or until a certain date. This is a good example of product manufactured during an older revision still being in accordance with the latest

know revision. Some specifications will note that the use of lots manufactured under previous revisions prior to certain dates are still allowable and in accordance with the latest revisions (i.e.: manufacturer's identification on heads for NASM20426 and NASM20470 specification manufactured prior to July 1990).

Rapid Rivet strongly advises its customers to obtain and submit to Rapid Rivet, the latest available or known proprietary drawings/specifications/standards for any proprietary or special parts they wish to be quoted on by Rapid Rivet. This enables Rapid Rivet to examine the drawings and determine if the parts we have in stock meet the current or latest known revision. When quoting such proprietary parts, Rapid Rivet will note the revision level of the part we are supplying.

In summary, product knowledge is the key to understanding changes in revision levels. In most cases, parts manufactured to older revisions are still in accordance with the latest revision as well.