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FROM: Jack Gillis

RE: Galvanization

Most of you are aware that the issue of galvanization is being put forward as a reason not to use aftermarket parts. Some members of the collision repair industry have challenged the ability of CAPA certified parts to resist corrosion as well as OEM service parts, which are galvanized. As CAPA has repeatedly stated in the past, we feel that there is little "real world" validity to these challenges.

Following, for your information, is our response to the issue. Feel free to contact me if you would like to further discuss this issue.

Bill Stewart

Corrosion Protection

There has long been a technical debate among experts as to whether or not galvanization is the most effective method to prevent corrosion of the sheet metal parts used in making automobiles. On the other hand, minimum base metal thickness, together with primer performance, is recognized as an accepted method of providing corrosion resistance.

Regarding CAPA, to be certified, must be manufactured from steel at least as thick as car company parts and use a coating process known as electro-deposition priming (EDP). EDP has been long recognized by the automotive industry. This system was proven so effective in corrosion resistance that in the late 1980's car companies felt secure enough in its performance to offer long term warranties against corrosion on their new cars. This protection is currently present in the majority of cars on the road today. The result has been that serious or widespread corrosion problems have become a thing of the past.

History

The automotive industry began to react to the corrosion problem in the 1970's and 1980's. This effort to control corrosion included:

1. Phosphate pretreatment of steel (prior to priming).
2. Cathodic Electro deposition priming (also known as electro deposition priming--EDP). The EDP process was effective since it was an immersion process which provided the improved coating of interior areas not accessible by the previous spray-on techniques.
3. Utilization of sealants and waxes on interior areas such as door and hood hems and crevices to resist the introduction of moisture and salt residue.
4. Design modifications which minimized the occurrence of galvanic corrosion which could occur when certain dissimilar metals were in contact with one another in the presence of an electrolyte (e.g. solutions of salt and water).
5. Selective introduction of one-sided (interior) galvanized sheet metal. This

material was used intermittently and somewhat randomly. It was considered advantageous to leave the exterior surfaces non galvanized for priming and paint purposes.

Contrary to recent claims from car companies promoting galvanization as the single most important factor in corrosion resistance, it is widely recognized in the technical community that the most significant contributor to avoiding corrosion is a phosphate pre-coat, in combination with EDP. CAPA certified parts are required to undergo both of these procedures.

However, the real issue is corrosion protection, not the means by which it is achieved. CAPA parts must pass an industry recognized 500 hour salt spray test. In addition, in spite of an aggressive complaint program and public concern of premature corrosion, of the approximately ten million CAPA parts sold since 1987, we have received only one complaint about corrosion. On the other hand, Ford is experiencing a huge, well documented finish problem with its parts. In fact, paint problems on Ford's 1985-93 F-series trucks affect up to 4 million vehicles. Astonishingly, even after Ford detected this serious paint problem, they not only refused to recall the products, but they continued to use the questionable paint process. Many of Ford's customers are alleging that not disclosing this paint defect to prospective buyers constitutes an unfair and deceptive trade practice in violation of the Federal Trade Commission Act. When a certified part is discovered which does not meet CAPA standards, it is publicly decertified and qualifies for a recall.

Another common concern regarding corrosion relates to road damage. Road debris or gravel may strike a body panel with sufficient force to penetrate all layers of the coating system, thereby exposing bare steel. In this situation, the impact of the corrosion will be a function of the steel's thickness. The perforation resistance of the damaged area is not significantly altered whether the metal is galvanized or non-galvanized.

In spite of the excellent corrosion protection offered by the EDP process and phosphate pre-coating, CAPA has had a long standing plan to require the use of galvanized sheet metal within the next two years. This is in response to the car companies' very recent increased use of galvanized sheet metal and because of public perception issues. However, we don't expect this change to offer significant

consumer benefits. In fact, decades of field experience show that the EDP process sufficiently coats sheet metal parts, sealing out moisture and preventing oxidation, the major factors causing corrosion.

CAPA is well aware that car companies, Ford and General Motors in particular, have spent millions of dollars attempting to discredit the use of aftermarket parts. Last year GM released a "study" attempting to undermine the use of non-galvanized sheet metal in the manufacture of aftermarket crash parts. In doing so, they neglected to point out that the vast majority of GM--and, for that matter, ALL-- cars on the road are manufactured with non-galvanized material. If one were to accept the GM study at face value, then GM is warning millions of car owners with non-galvanized parts that their cars are substandard.