Graphic Removal

Removing graphics from vehicles prior to selling them at the auction is value added. De-identification of government vehicles and non-government vehicles mitigates any potential risks with a vehicle used with an unauthorized company or organization's logo. Government license plates are destroyed after the vehicle is placed out of service. The graphic presents a problem for the prospective buyer as well. The graphic will typically have to be removed prior to selling to a retail customer so time and money will have to be spent to prepare the vehicle. This is not a value added portion of the buyer's value chain. A vehicle with graphics still affixed may affect the values in the lanes. Some popular sellers see the short and long term value with graphic removal prior to selling. The short term benefit is the better returns in the lanes and the long term is the risks with a company logo left on a vehicle that is no longer used for company business. Removing the graphics is a broad subject. Trying to identify a clear best practice is the purpose of this study.

"The challenge is to remove the graphic and the glue residue without damaging the substrate and the paint beneath the graphic in a timely matter using an eco-friendly process."

The removal methodologies tend to vary with the different graphic/substrate combinations. The testing focused on vehicles that frequent the auctions and their sticker types. Information was needed about the current methodologies, vehicles typically having graphics, type of graphic and the need of additional services after the graphic has been removed so a survey was given to organizations that install, remove and produce the graphics.

The majority of vehicles requiring graphic removal are:

- Sedans
- Sport Utility Vehicles
- Pickup trucks
- Cargo Vans
- 10' Panel Van/truck (most popular)
- 14' Panel Van/truck
- 17' Panel Van/truck
- 24' Panel Truck
- 26' Panel Truck
- Construction equipment
- Boats

Removal methodologies found on the Internet from do-it-yourself type blogs and miscellaneous websites exposed a trend. As far as the Internet goes, a best practice for removing a graphic does not exist.

The survey collected the following methods:

- Magnetic induction
- Wallpaper steamer
- Pressure washer
- Lacquer thinner
- Heat gun
- Acetone
- MEK
- Goof Off
- Ammonia w/plastic covering
- Eraser wheels
- Infrared lighting
- Adhesive remover
- Body Prep Solvent
- Stripping Chemical
- Paint Booth
- Wallpaper remover

Study Synopsis

A few of the methods listed were not used (Methyl Ethyl Ketone (MEK), acetone, paint thinner and ammonia with plastic covering) because they strayed too far from the goals established at the beginning of the study. Vehicles were broken down by category and tested equally to identify a best practice and alternative. As the study progressed the different substrates each vehicle had helped guide the researcher to eliminate processes that are either unsafe to use or ineffective. An example is the thin-skinned aluminum box trucks and the magnetic induction system. The metal can be heated with the inductor but cools faster than the researcher can loosen the graphic and remove it. Another example is the use of heat guns, metal and plastic scraping tools. The heat required to loosen the graphic and its glue residue is too hot for the average plastic scraping tool. The edge will melt rendering it useless after a few minutes of constant heat. The metal blade if used improperly will harm the softened substrate and present a burn hazard to the technician.

The researchers tested the different processes gathering pros and cons. While this brief synopsis will not break the testing down, the researchers chose chemical stripping, electric heat guns and hot water pressure to be effective in the tests. Each has its pros and cons however, the substrate damage was unharmed, safe for technicians, eco-friendly and cost effective.

The graphic removal process is one of many studies that the Manheim Technical Center conducts for continuous improvement of the Clean Team detail processes. Clean Team continues to be a cost effective reconditioning solution for the various Manheim customers.